

A Case Study Market Analysis of Acceleration Mechanisms in Florida:  
Dual Enrollment Positioning

by  
Laura Melissa Perry

An Applied Dissertation Submitted to the  
Abraham S. Fischler School of Education in  
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### Approval Page

This applied dissertation was submitted by Laura Melissa Perry under the direction of the persons listed below. It was submitted to the Abraham S. Fischler School of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova Southeastern University.

\_\_\_\_\_  
Ralph J. Rich, EdD  
Committee Chair

\_\_\_\_\_ Date

\_\_\_\_\_  
Sylvia Auton, PhD  
Committee Member

\_\_\_\_\_ Date

\_\_\_\_\_  
Program Professor Review  
Applied Research Center

\_\_\_\_\_ Date

\_\_\_\_\_  
Mary Ann Lowe, SLPD  
Associate Dean

\_\_\_\_\_ Date

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### **Abstract**

A Case Study Market Analysis of Acceleration Mechanisms in Florida: Dual Enrollment Positioning. Laura Melissa Perry, 2013: Applied Dissertation, Nova Southeastern University, Abraham S. Fischler School of Education. ERIC Descriptors: Acceleration (Education), Competition, Dual Enrollment, Marketing, Recruitment

This applied dissertation explored dual enrollment viability when compared to other acceleration mechanisms: (a) advanced placement, (b) advanced international certificate of education, (c) international baccalaureate, and (d) college-level examination program. This multicase, qualitative study explored the competitiveness of dual enrollment versus other acceleration mechanism using Porter's model and the strengths-weaknessesopportunities-threats analysis as the theoretical frameworks. The study used one-on-one interviews to gather primary comparative information. Five groups were interviewed: (a) the vendors of the acceleration mechanisms, (b) state education officials, (c) district personnel, (d) high school representatives, and (e) higher education representatives. The acceleration mechanisms' educational objectives, their positioning, and any acceleration mechanisms' benefits to the various stakeholders were examined. Dual enrollment was compared to the other acceleration mechanisms to develop recommendations for improving the competitive positioning and viability of dual enrollment in Florida.

The study found that acceleration-mechanism options were complex and dynamic programs that were highly influenced by government policies and funding. Educational entities viewed the value of acceleration mechanisms differently, especially dual enrollment. All groups agreed that acceleration mechanisms provided rigorous curriculum for high school students to prepare for college. However, educational entities

first wanted to protect their own interests and funding. In terms of dual enrollment, financial considerations remained a substantial motivation for the program. The study showed that all acceleration mechanisms offered benefits to participating students. However, the multifaceted and ever-changing nature of acceleration mechanisms provided no clear advantages or benefits for dual enrollment versus other acceleration mechanisms. Several recommendations are made that addressed concerns about the longterm value of dual enrollment for Florida institutions and students.

## Table of Contents

Statement of the Problem.....	1
Qualitative Research Approach .....	4
Relevance to the Discipline .....	5
Definition of Terms .....	9
Purpose of the Study.....	18
Chapter 2: Literature Review.....	20
Introduction.....	20
Theoretical Framework.....	21
Marketing Concepts and Principles .....	21
Marketing Higher Education and Application.....	25
The Strengths-Weaknesses-Opportunities-Threat Analysis .....	29
Competitive Strategy .....	34
Consumer Decision Making.....	42
Acceleration Mechanisms.....	45
State of Nation .....	65
State of Florida .....	70
Summary.....	72
Research Questions.....	74
Chapter 3: Methodology .....	75
Aim of the Study.....	75
Participants .....	75
Strategy of Inquiry .....	76
Data Collection .....	78
Instruments .....	81
Research Procedures.....	82
Data Analysis.....	85
Chapter 4: Results.....	90
Introduction.....	90
Participant Demographic Information .....	92
Results for Research Question 1 .....	93
Results for Research Question 2.....	96
Results for Research Question 3.....	106
Results for Research Question 4.....	109
Results for Research Question 5.....	116
Results for Research Question 6.....	118

Results for Research Question 7.....	131
Results for Research Question 8.....	158
Summary.....	160
Chapter 5: Discussion.....	161
Introduction.....	161
Overview of the Applied Research Study .....	162
Summary of the Findings .....	166
Conclusions and Implications for Research Question 1 .....	169
Conclusions and Implications for Research Question 2.....	172
Conclusions and Implications for Research Question 3 .....	176
Conclusions and Implications for Research Question 4.....	179
Conclusions and Implications for Research Question 5.....	182
Conclusions and Implications for Research Question 6.....	183
Conclusions and Implications for Research Question 7.....	188
Conclusions and Implications for Research Question 8.....	191
Limitations.....	193
Recommendations.....	194
Conclusions .....	195
References.....	196
Theoretical Framework for Dissertation.....	215
Plan for Triangulated Data Collection.....	217
Formative and Summative Panels .....	219
One-on-One Interview Guide .....	223
Analysis Evaluation Form for SWOT .....	228
Porter’s Model: Industry Analysis of Acceleration Mechanisms.....	232
Triangulation Matrix for Value of Dual Enrollment Research Questions.....	234
Results of Interview Guide .....	236

## Appendices

I	Similarities of AICE and IB .....	355
J	College Benefits of Participating in Acceleration Mechanisms .....	357
K	Logistical Considerations of Selecting Acceleration Mechanisms .....	361
L	Why High Schools Choose to Offer AICE and IB .....	363
M	Factors Influencing Students’ Selection of Acceleration Mechanisms .....	365
N	Comparison of Acceleration Mechanisms .....	367
O	Analysis of SWOT .....	369
P	Porter’s Model Analysis .....	389
Q	Mission Statements Analysis Model .....	391
R	Perceptual Maps of Acceleration Mechanisms in Florida .....	393
S	Maslow’s Theory of Needs Adapted to Acceleration Mechanisms.....	396

T Comparison of Acceleration Mechanisms' Strengths and Weaknesses .....398

Table

Trends by Ethnicity of State Senior Participation in Advanced Placement .....50

## **Chapter 1: Introduction**

### **Statement of the Problem**

The current trend in kindergarten through Grade 12 education in the United States, especially at the high school level, has emphasized increasing rigor and relevance. For the United States to compete globally, increased proficiencies must be achieved in courses leading to postsecondary opportunities (National Governors Association, 2010). One of the most popular ways to increase rigor and relevance has been through the use of an acceleration mechanism, which is something that grants college credit to high school students.

In Florida, only 39.9% of high school students took advantage of at least one acceleration mechanism that included advanced placement (AP), international baccalaureate (IB), advanced international certificate of education (AICE), and dual enrollment (Kerouac, 2007). Florida has remained interested in accelerated mechanisms because 2004-2005 college remediation courses cost the state \$62.9 million, and evidence has suggested that students who participated in accelerated programs in high school needed significantly less remediation (Office of Program Policy Analysis and Government Accountability [OPPAGA], 2006e). Yet, it is unknown whether participants in acceleration mechanisms need less remediation because of the acceleration mechanisms or whether the participants were already better students. In the 2008-2009 school year, after the Florida state legislature had made budgetary reductions, AP, IB, and AICE programs cost the state \$67 million (OPPAGA, 2008). The value of acceleration mechanisms has come into question due to the lack of penetration of all acceleration mechanisms and the cost of the programs, especially dual enrollment.

**Phenomenon of interest.** The state of the acceleration mechanisms industry and marketplace is the primary focus of this study. In the 2009 Articulated Acceleration Mechanisms, Title XLVIII Florida State Statutes, the state legislature provided Florida secondary students with a variety of acceleration mechanisms: dual enrollment, early admission, AP, credit by examination, the IB, and the AICE program. The OPPAGA (2009a) reported, “The AP program is the most widely used high school acceleration program in Florida, and during the 2007-2008 school year 129,779 Florida students enrolled in AP courses” (p. 2). The other three acceleration mechanisms only enrolled a combined total of 47,296 students.

The AP program’s participation rate increased by 12% from 2002 to 2007 (OPPAGA, 2008). Yet, IB remained stable and dual enrollment decreased 3% during the same timeframe. Based on 2006-2007 graduates, in one of the study’s school districts, the participation in dual enrollment was 19%, whereas AP participation was 45%. Another district had a dual enrollment participation rate that was 14%, whereas the AP participation rate was 33%. The final district had a dual enrollment participation of 26% and AP participation of 15%. The reason for dual enrollment being higher in the last district was because, at the time of the OPPAGA study, only one high school of three offered AP courses.

Florida’s budget condition has been discussed as well as community colleges’ enrollment and how budget and enrollments affect dual enrollment. In the 2009-2010 school year, Florida had a projected budget shortfall of \$3.2 billion for the 2009-2010 school year, and community colleges were forecasted for a reduction of 4%, or approximately \$38 million, with possible future cuts ahead (Florida Association of

Community Colleges, 2009). Due to lack of funds and possible future cuts, colleges were forced to offer fewer classes or sections to serve their students. Nationwide, community colleges experienced approximately 10% growth in enrollment for the spring semester during 2009 (Demicki, 2009). For 2011, the state's budget was expected to be bleak due to a projected \$6 billion deficit and the federal stimulus money disappearing (Klas, 2010). The current economic condition, budget cuts, and possible increasing student enrollments, along with the fact that acceleration programs cost more than college courses at the postsecondary level (OPPAGA, 2009a), have brought into question if dual enrollment has value.

**The research problem.** The problem addressed by the study involved the lack of knowledge of dual enrollment as a product versus other acceleration mechanisms for (a) Florida high school students, (b) the colleges that participate in the program, and (c) the state of Florida, given the ready availability of other accelerated mechanisms in the market. Using 2006-2007 data, dual enrollment decreased by 3%, whereas AP grew by 12% and IB remained stable (OPPAGA, 2008). With the decrease of student participation and the number of acceleration mechanisms, the value or relevance of dual enrollment to the various stakeholders needed to be questioned. The answer to whether dual enrollment still met the needs, wants, and demands of its stakeholders was unknown. The problem was that the paucity of research about dual enrollment as an accelerated learning product in comparison to the other accelerated mechanisms was not known and needed to be questioned, especially given the current competitive environment of accelerated learning programs.

By examining dual enrollment as an accelerated learning product in comparison to other acceleration mechanisms, the viability of the program could be clarified. The value

of dual enrollment was determined by comparing dual enrollment to other acceleration mechanisms, uncovering the positioning of dual enrollment in the acceleration mechanisms market, and ascertaining the perceptions of the different stakeholders who include high school personnel, public school district personnel, higher education personnel, and department of education personnel. From gaining knowledge and an understanding of the value of dual enrollment, recommendations were made.

### **Qualitative Research Approach**

Qualitative research was selected for this study because of its characteristics and desired outcome of having a descriptive picture of acceleration mechanisms, especially dual enrollment. The most important characteristic of qualitative research in relation to this study was the descriptive nature of the method, which permitted the researcher to gain an indepth understanding of acceleration mechanisms (Creswell, 2007; Merriam, 2009). An additional aspect of qualitative research that made this method appropriate for this study was the focus on the participants' experiences and their interpretations about it instead of the focus being on the researcher's perspective (Creswell, 2007; Merriam, 2009). A characteristic of qualitative research is the "need to ask general, open questions and collect data in places where people live and work" (Creswell, 2008, p. 51).

By asking the key stakeholders of dual enrollment, the researcher was able to learn the value of dual enrollment. Yet, although the qualitative researcher's perspective was not taken into account, the researcher was the main instrument in terms of data collection and analysis. The advantage of the researcher being the primary instrument was adaptability and responsiveness, which complemented the desire to gain an extensive understanding of acceleration mechanisms (Merriam, 2009). Creswell (2007) stated, "The key idea behind qualitative research is to learn about the problem or issue from

participants and to address the research to obtain that information” (p. 39). The qualitative research goal of understanding corresponded with the purpose of this study that entailed attaining a comprehensive view of acceleration mechanisms in the state of Florida.

### **Relevance to the Discipline**

Currently, the topic of acceleration mechanisms has been popular and has been written about in the *New York Times*, *Chronicle for Higher Education*, *Inside Higher Education*, and many other publications and newspapers. The main focus has been on AP because it has the largest participation rates of all the acceleration mechanisms. Yet, IB and dual enrollment have received some coverage. Although AP has been the most popular program in terms of participation, opponents of the program have brought forth many issues about the program. One of the main concerns has been whether the growth of the program has diminished the quality (Cech, 2008).

Although growth has occurred with AP classes, some schools sought alternatives to AP through the development of their own rigorous curriculum (Hammond, 2008; Scharfenberg, 2007). Yet, some schools dropped AP due to College Board’s new audit program (Cech, 2008). The audit program’s methodology has caused some controversy. Another issue has been the participants’ passage rate of AP exam, especially with the program’s growth (Matthews, 2008a, 2008b). Schachter (2008) stated, “Some colleges are questioning how well passing AP scores—which for 52 years have been the gold standard of high school achievement—predict students’ future undergraduate success” (p. 29). Colleges and universities had begun to conjecture on what the score on the AP exam demonstrated. In the article, *Posing Tougher Questions About the Advanced Placement Program*, Robert Tai (2008) named three AP issues: (a) high school AP courses and their

role in college admissions, (b) AP exams and college course credit, and (c) issues of access and equity.

Another issue involving AP has been the ranking of high schools based upon participation (Matthews, 2008a). Due to the controversy of the high school ranking, Matthews (2008a) added another ranking called the catching-up list, which is a list of all high schools that have less than 10% passage rates. The final issue with AP has been the comparison between IB and AP (D'Orio, 2009). The number of issues surrounding AP has been reflected in the increasing interest in acceleration mechanisms, including their true purpose and their actual effectiveness.

In terms of financial benefit, dual enrollment has mixed results as a program in regard to school district and community college benefits, especially given recent economic conditions. Who benefits from dual enrollment? Hunt (2007) stated, "There is no scenario for the delivery of dual enrollment instruction in which the total funding provided to the community college and the school district is greater than the total costs associated with the instruction for both systems" (p. 875). In 2008, Florida faced a budget crisis that it had not seen in decades. Lawmakers expected revenues to lessen by \$2 to \$3 billion over the coming 2 years (Dunkelberger, 2008). The federal stimulus money has helped the state's budget for 3 years, but it disappeared in 2011 (Klas, 2010). With less than ideal funding incentives and a bad economy, the dual enrollment program needed to be examined to see if the program was viable and could be more effectively used.

Although dual enrollment may not be a revenue-generating proposition, the program has benefited the college in terms of student enrollment, performance, and graduation outcomes. Dual enrollment students enrolled in the state's community college system at a higher rate than all other high school graduates (Florida Department of

Education, 2004a). With respect to persistence and grades, researchers determined that dual enrollment students were more likely to remain enrolled in a second semester and have higher grade point averages 1 year after high school graduation (Karp, Calcagno, Hughes, Jeong, & Bailey, 2008).

In addition, Karp et al. (2008) found that dual enrollment students documented 3 years after graduating from high school had greater enrollment rates than students who did not participate in the dual enrollment process. Other factors comparing dual enrollment students to nonparticipating students were that they had significantly higher grade point averages and earned more postsecondary credit. One of the most important factors has been graduation rates because dual enrollment students had higher graduation rates than comparable academic students who did not participate in dual enrollment (Florida Department of Education, 2004b). All of these outcomes demonstrated that dual enrollment students helped to improve the quality of students at the community college, which can be an important reason to research the positioning and value of the dual enrollment program.

Dual enrollment has produced positive outcomes for high school students, colleges, and high school personnel. Dual enrollment may be the first opportunity that some students have to become encouraged to think about college (Mattis, 2008). Dual enrollment should help the community college to build a relationship between the college and high school students (Hoffman, Vargas, & Santos, 2009). The program helped college personnel to foster a relationship with high school personnel by encouraging collaboration in order to serve their students' needs. Studying the perceived value of dual enrollment provided a better understanding of the program and determined if it was an effective and appropriate acceleration method.

Although dual enrollment has produced positive outcomes, opponents of dual enrollment have affected the perception of dual enrollment. Some university personnel viewed AP to be more rigorous and academically challenging than dual enrollment (Hunt & Carroll, 2006). When universities' admissions weighted AP, IB, and AICE heavier than dual enrollment, guidance counselors steered students into taking AP whom they considered most likely to go directly to a university. Because guidance counselors were an important source of information for high school students, understanding how they perceived dual enrollment was important to learn in order to address utilization of dual enrollment (Hill, 2007).

Funding issues, dual enrollment benefits, and perception of dual enrollment were factors associated with the study of the viability of the dual enrollment program. Funding issues were addressed to a certain extent. In addition, the benefits of dual enrollment and the dual enrollment students' outcomes were discussed in an effort to discover better marketing and recruiting strategies. The perception of dual enrollment that was studied should provide insight to why teachers and guidance counselors viewed dual enrollment the way they do. Possible solutions to overcoming perceptions were to educate, market, and promote dual enrollment more effectively. By studying dual enrollment's positioning and the market of acceleration mechanisms, the dual enrollment program was evaluated to see if it was viable and was effective.

**Deficiencies in the evidence.** In order to determine the value of dual enrollment in comparison to other acceleration mechanisms, there was a need for literature that evaluated the competitiveness of acceleration mechanisms. Although extensive research and information can be found on acceleration mechanisms as a subject matter, a paucity of literature that compared the acceleration mechanisms existed, which became one of the

primary motivations for this study. In terms of literature assessing acceleration mechanisms, the norm is comparison of two acceleration mechanisms. In addition, utilizing business theories to evaluate acceleration mechanisms was not available. Some educational research employed business models and concepts but not in relation to acceleration mechanisms.

**Audience.** The research was conducted at various entities in the state of Florida. High school personnel and district personnel at three public school districts in Florida were interviewed for the study. Combined, these school districts have 15 high schools, and these high schools offered dual enrollment at the high school sites and college campuses. In addition, dual enrollment personnel were interviewed at various community colleges and state colleges in Florida. Another audience group consisted of personnel at state universities and private universities in the state. A supplementary audience group included people who had a statewide perspective based on their experiences with the department of education. The final audience group consisted of people from other states who had an interest in acceleration mechanisms. These people had affiliation with state educational policy groups, state educational departments, research groups, foundations, secondary personnel, and higher education group.

### **Definition of Terms**

In this section, terms that need clarification or explanation are defined. These terms can be grouped into the subject areas of accelerated learning and business terms. Some of these terms have been defined from a theoretical perspective, whereas other term definitions came from the education or business sector.

**Acceleration mechanisms.** This term refers to dual enrollment, AP, IB, AICE, and credit by examination (OPPAGA, 2013). These are also known as acceleration programs.

**Acceleration programs.** This term refers to programs that were developed to shorten the time to earn a college degree, offer a broader range of classes for the students to study, and expand the depth that a student can study in a particular subject area (OPPAGA, 2013). These are also known as acceleration mechanisms.

**Advanced international certificate of education (AICE).** This term refers to a program that was started in 1994 by the University of Cambridge as a means to prepare students for honors degree programs (Cambridge International Examinations, 2013b, 2013c, 2013g). The curriculum consisted of groups of subjects from three areas, and students tailored the certificate to match their interests, goals, and future plans from an international education perspective. The three subject areas consisted of mathematics and science, languages, and arts and humanities.

**Advanced placement (AP).** This term refers to a testing method that has been administered by the College Board (Florida Department of Education, 2003). The AP program consists of 23 subject areas and has 38 courses and exams related to these areas (University of South Florida, 2009). These courses have been designed to be comparable to freshman and sophomore undergraduate courses. Students earned college credit when they pass the AP examination with a score of 3 or higher on a 5-point scale.

**Advanced placement international diploma.** This term refers to part of the College Board's advanced placement program (International College Board, 2013). The purpose of this diploma has been to provide an international credential for U.S. students who have planned to attend an international university. In addition, the diploma has been available to international secondary students. To have earned this type of certificate,

students must score a 3 or higher on a minimum of five AP exams from the content areas of English language, world languages, global perspective, mathematics or science, and history, social science, and arts.

**Branding.** This term refers to the act of describing a product through the use of a brand, which has been defined as “a combination of name, term, sign, symbol, design, or any mixture of these that identifies a product and differentiates it from its competitors” (Chang, 2010, p. 166).

**Cambridge advanced.** This term refers to a Cambridge curriculum that prepares students for university work by encouraging a deep understanding of subject matter, critical-thinking skills, and independent learning (Cambridge International Examinations, 2013b). In this category, students have three options of study: Cambridge AS and A levels, Cambridge Pre-U, and Cambridge AICE diploma.

**Cambridge primary.** This term refers to a Cambridge curriculum that is geared toward elementary-aged students ranging from 5 to 11 years old (Cambridge International Examinations, 2013d). English, mathematics, and science skills are the areas of concentration in this program.

**Cambridge Secondary 1.** This term refers to a Cambridge curriculum that targets students in the age range of 11 to 14 years old (Cambridge International Examinations, 2013e). The program adds on to Cambridge primary, but students do not have to be associated with Cambridge primary to take part in Cambridge Secondary 1.

**Cambridge Secondary 2.** This term refers to a Cambridge curriculum that is for students 14 to 16 years old (Cambridge International Examinations, 2013f). In regard to this category, students have two options: Cambridge IGCSE and Cambridge O levels. This program provides preparation for Cambridge advanced.

**College-level examination program (CLEP).** This term refers to a program that allows students to earn college credit based on their knowledge of a subject (College Board, 2013a). The CLEP has 33 exams that students can take to earn college credit. Institutions have their own criteria for awarding grades or credits for passed exams. This acceleration mechanism is most popular with homeschooled students.

**Competitive advantage.** This term refers to a condition that exists when a company has the ability to execute in multiple ways that competitors have chosen not to counter or did not have the capability to provide the equivalent (Kotler, 1999).

**Competitive strategy.** Organizations develop the strategic plan to develop a competitive advantage against the organization's competitors with its products. The competitive strategy is an essential part of the development of the organizations' overall business strategy. Competitive strategy is composed of (a) identifying strengths, weaknesses, opportunities, and threats; (b) driving forces of the competition in the market in terms of strength and nature, (c) understanding what product characteristics that the consumer desired; and (d) creating a solid position in the market, which can be defined specifically as a competitive advantage.

**Concurrent enrollment.** This term has many of the same characteristics as dual enrollment. The National Alliance of Concurrent Enrollment Partnerships (2013a, 2013b) defined concurrent enrollment as a program that allows high school students to take college classes and earn college credit, but high school teachers teach these classes at the high school site during the regular school day.

**Consumer decision-making process.** This term refers to the thought process that the consumer has gone through in making a decision. The consumer decision-making process is composed of five phases that include need-want recognition, information search, an evaluation of alternatives, purchase, and postpurchase evaluation.

**Core competency.** This term refers to an organization's primary capabilities to customers in terms of apparent value or benefit, and it has a range of applications to diverse markets (Kotler, 1999). In marketing terms, when these core competencies cannot be duplicated by competitors, they are often referred to as unique selling propositions.

**District official.** This term refers to a person who works for school districts in their centralized office in the areas of student services or acceleration mechanisms. This term specifically refers to individuals in one of the participant groups interviewed in this study.

**Dual enrollment.** This term refers to a program that allows high school students to take college-level classes while enrolled in high school and earn credit toward both high school and college (Kim, 2006). Fincher-Ford (as cited in Kim, 2006) defined dual credit as "earning credits in both high school and college simultaneously while still in high school based upon formalized agreements between high school and postsecondary institutions" (p. 19). Another term that has been determined to be identical to dual enrollment is coenrollment (Heath, 2008). One more interchangeable term for dual enrollment has been joint enrollment (Kleiner & Lewis, 2005).

**Early college high schools.** This term refers to institutions that have combined high school and college resources in order to accelerate curriculum so that students can graduate with a high school diploma and associate's degree in less than 6 years, which is the traditional time frame. Early college high schools have been a type of intensive dual enrollment program, which involves "programs in which students take dual enrollment courses during the 11th- and 12th-grade year to satisfy requirements for a high school diploma and associate's degree concurrently" (Heath, 2008, p. 15).

**Environmental scan.** This term refers to the examination of the external environment to discover events, factors, and trends that have a potential effect on the company's decision-making processes (Walters, 2002). Examples of external environments analyzed were market, technological, competitive, political or legal, economic, and sociocultural.

**High school representative.** This term refers to a person who works for a high school in the areas of guidance or acceleration mechanisms. This term specifically refers to individuals in one of the participant groups interviewed in this study.

**Independent colleges and universities of Florida (ICUF) representative.** This term refers to a person who was employed by a private college or university that is part of this association, which was composed of 31 private educational institutions (Independent Colleges and Universities, 2013). The ICUF representative worked in the area of admissions or student enrollment. This term specifically refers to individuals in one of the participant groups interviewed in this study.

**International baccalaureate.** This term refers to a program that is governed by the International Baccalaureate Organization (University of South Florida, 2009). The IB program is designed to meet the needs of high school students worldwide. The IB emphasizes rigorous academic standards, global understanding, and citizenship. In addition, the IB program is based on a liberal arts curriculum that accentuates the humanities and the sciences. Students earn college credit when they have passed the IB exam with a score of 4 or higher on a 7-point scale.

**International baccalaureate diploma program.** This term refers to an acceleration program that allows high school students to earn a full diploma when they pass six subjects and successfully complete additional requirements, such as (a)

creativity, action, and service hours; (b) theory of knowledge course; and (c) 4,000-word extended essay (Duarte, 2013).

**Market segmentation.** This term refers to a marketing concept and process that entails narrowing a diverse customer base by identifying similarities and then grouping customers by these commonalities (Sarvary & Elberse, 2006). Market segments are groupings of common customer behaviors within specific product or service categories.

**Massively open online courses (MOOC).** This term refers to free online courses that are developed and offered by various individuals and higher education institutions (Finn, 2012). The three main providers of MOOCs are Coursera, Udacity, and EdX.

**Middle college high schools.** This term refers to “high schools located on college campuses with college enrollment” (Krueger, 2006, p. 11). Middle colleges have been limited in number and sometimes have targeted at-risk students and students from low-income families.

**Middle years program.** This term refers to an IB program that is intended for students who are 12 to 16 years old (Duarte, 2013).

**National Alliance of Concurrent Enrollment Partnership.** This term refers to the only accreditation body of partnerships that offers concurrent enrollment in order to ensure that the courses taught at the high school are of the same level of rigor as the same courses offered at the college campus (National Alliance of Concurrent Enrollment Partnerships, 2013a).

**Perceptual mapping.** This term refers to a marketing technique that illustrates graphically how companies’ products compare against their competition’s products. The technique provides organizations with an idea about how their consumers perceive their product as well as a better understanding of their competition through a two-dimensional

graph, in which each dimension represents a specific product or service attribute that is measurable on a dichotomous scale.

**Porter's five forces.** This was developed by Michael Porter (1980) to illustrate "the attractiveness of an industry environment for the 'average' competitor within it" (Ghemawat, 2002, p. 55). The five forces are composed of (a) buyers, (b) new entrants, (c) suppliers, (d) substitutes, and (e) industry competitors. The center force involves industry competitors, and the remaining four forces surround and influence the force of industry competitors. In this study, industry competitors are defined as any of the acceleration programs: AICE, AP, IB, and CLEP. Buyers are defined as high school students who have been deemed eligible to participate in the acceleration programs. Suppliers are classified as school districts, high schools, and virtual schools or any other parties that have the means to deliver acceleration programs or to enter into an agreement to be able to participate in acceleration programs.

**Porter's model (i.e., Porter's forces).** This term is used in this study to describe the generalized competitive forces described by either Porter's original five forces or the addition of Porter's sixth force.

**Porter's sixth force.** In this study, the sixth force added to the classic Porter's five forces is government. The sixth force, government, is examined on how its policies, laws, or regulations influence and affect competition and the five forces (Porter, 2008).

**Positioning strategy.** This term refers to a marketing strategy that was defined by Kotler (1999) as "the act of designing the company's offering and image to occupy a distinctive place in the target market's mind" (p. 298). Products or services leverage their unique attributes to specific target customers who are seeking these attributes.

**Product differentiation.** This marketing term describes how a product or service is uniquely different, or differentiated, from that of other competitors. Most organizations seek to design a product with significant distinctions that set it apart from competitors' products (Kotler, 1999).

**Primary years program.** This term refers to an IB curriculum that is targeted to the elementary grades of kindergarten to fifth grade in the United States (Duarte, 2013).

**State college representative.** This term refers to a person who works for a state college that is affiliated with the Association of Florida Colleges that represents 28 community or state colleges (Association of Florida Colleges, 2013). In addition, this person has experience with dual enrollment and possibly has familiarity with the other acceleration mechanisms. This term specifically refers to individuals in one of the participant groups interviewed in this study.

**State education official.** This term refers to a person who has worked for the state department of education either currently or previously. In addition, the officials had professional experiences in either articulation, which would have familiarity with all acceleration mechanisms or dual enrollment with their work for state colleges. This term specifically refers to individuals in one of the participant groups interviewed in this study.

**State university system of Florida (SUSF) representative.** This term refers to a person who is employed by one of the 12 state universities of Florida and works in the areas of admissions or advising. This term specifically refers to individuals in one of the participant groups interviewed in this study.

**Strengths-weaknesses-opportunities-threats (SWOT) analysis.** This term refers to a situational audit of an organization's business environment. The components of SWOT analysis consist of the internal components of an organization's or company's

internal strengths and weaknesses, plus the external components of opportunities and threats. The term strength is defined as skills or capabilities that give the company an advantage in the marketplace (Harvard Business School, 2006b). On the other hand, weakness is described as a factor that limits the organization from executing business well and which needs to be addressed. Examples of internal analysis of strengths and weaknesses include the organizational culture, current performance, brand power, cost structure, and technology (Harvard Business School, 2006b). Opportunities in the external analysis part of SWOT analysis can be defined as “trends, forces, events, and ideas that your company or unit can capitalize on” (Harvard Business School, 2006a, p. 2). Threats can be described as potential occurrences that an organization cannot oppress so the company should plan for it or try to diminish it. The external analysis of opportunities and threats consists of customers, competitors, work-style trends, major uncertainties, suppliers, and potential partners.

**Target market.** This term describes the specific subset of customers within a product or service category that an organization decides to focus on, or target, by narrowing its marketing resources to a specific segment of customers (Imber & Toffler, 2000).

**Vendor.** This term refers to a person who is employed by one of the exam-based acceleration mechanisms: AICE, AP, or IB. This term specifically refers to individuals in one of the participant groups interviewed in this study.

### **Purpose of the Study**

The purpose of the study was to discover if dual enrollment was viable when compared to the other acceleration mechanisms. By examining the value of the dual enrollment, the viability of the program was considered. The value of dual enrollment

was examined by comparing dual enrollment to other acceleration mechanisms, uncovering the positioning of dual enrollment in the acceleration mechanisms market, and ascertaining the perceptions of the different stakeholders who include high school personnel, public school district personnel, higher education personnel, and department of education personnel. From gaining an understanding of the value of dual enrollment, specific recommendations were made.

## Chapter 2: Literature Review

### Introduction

This literature review explored the marketing concepts that serve as a basis for the study's theoretical framework, as well as the background, development, and current conditions surrounding the various acceleration mechanisms. Acceleration mechanisms are programs that offer rigorous course work to high school students with the possibility of earning college credit with the successful completion of an exam or course. The intent of acceleration mechanisms is to shorten the time to degree as well as increase the breadth and depth of curricula for high school students. Although all options of acceleration mechanisms were explored, the primary focus has been on how dual enrollment options compared to other options.

The first main topic reviewed focuses on the marketing concepts and theories that served or attributed to the study's theoretical framework, specifically Porter's model (Porter, 1980, 2008) and strengths-weaknesses-opportunities-threats (SWOT) analysis. The second main topic discussed involves the educational category of acceleration mechanisms, and the chosen acceleration mechanisms reviewed are AP, IB, AICE, CLEP, and dual enrollment. The dual enrollment was assessed more deeply because this acceleration mechanism was the main acceleration program of interest. The history of each acceleration program was studied, including its original purpose and how that purpose has evolved into today's purposes. The third section of the literature review discusses the definitions of terms that relate to dual enrollment.

The fourth section consists of the state of nation that covers the condition of acceleration mechanisms in the United States in regard to participation rate across the nation. The fifth and final section examines the state of Florida's participation with

acceleration mechanisms and the state's policy changes that directly relate to acceleration mechanisms. Due to the immediate relevancy of acceleration mechanisms, current sources were used in the literature review sections. Most of these current resources were not peer reviewed, but they provided a more complete portrayal of the present discussion and debate about acceleration mechanisms, especially in Florida. Without drawing on these sources, the current nature of acceleration mechanisms would not be complete.

### **Theoretical Framework**

In terms of the theoretical or conceptual framework, the foundation of this study came from the field of marketing. The theoretical framework or underlying structure was derived from Porter's model (Porter, 1979, 1980, 2008) and SWOT analysis. Although the study's foundation was Porter's model, Porter's ideas on competition and industry attractiveness heavily influenced the study. In order to conduct analysis on acceleration mechanisms, the researcher employed a theoretical framework by utilizing Porter's model, SWOT analysis, and other marketing theories and concepts that were related to competition (see Appendix A).

### **Marketing Concepts and Principles**

Marketing concepts and principles have been examined in order to establish marketing knowledge for the purpose of this study. The purpose of marketing has been addressed, as well as the concept of target marketing. The elements of target marketing that have been detailed were segmenting, targeting, and positioning.

**Marketing.** Peter Drucker, a leading management theorist stated, "The aim of marketing is to know and understand the customer so well that the product or service fits him and sells itself" (Kotler, 1999, p. 8). To be able to understand the customers, a company first needs to know the industry and its competitors. An industry is composed of

sellers of a similar product that has met the customer's needs and wants, and the market consists of the buyers of the products. Competition is an important part of the industry and the marketplace. Kotler (1999) stated, "Competitors are companies that satisfy the same customer need" (p. 223). For a company to understand how its product has fared in relation to others, the organization must be knowledgeable about its industry, competitors, and the market.

**Target marketing.** Companies have recognized that they cannot satisfy all customers' needs, wants, and expectations (Kotler, 1999). As a result, companies have employed target marketing, which is defined as the identification and profiling of distinct groups of customer or potential customers whose needs the company can meet. Target marketing has three steps associated with it. The first step necessitates the company to categorize customers based upon their similarities that consist of "similar wants, purchasing power, geographical location, buying attitudes, or buying habits" (Kotler, 1999, p. 256). This process or concept is market segmentation. The next step in target marketing is to decide upon the one or more market segments in which the company wants to compete for customers. This narrowing of the subset of available customers is referred to as targeting. The final step in target marketing is to "establish and communicate the products' key distinctive benefits in the market" (Kotler, 1999, p. 256), which is called market positioning.

**Segmentation.** Market segmentation, the first step in target marketing, is the process of carving up the market based upon customers' characteristics, needs, and wants (Sarvary & Elberse, 2006). Sarvary and Elberse (2006) stated, "The aim is to cluster customers in groups that clearly differ from one another but show a great deal of homogeneity within the group" (p. 3). In addition, segmentation helps companies to

ascertain opportunities (Kotler & Armstrong, 2008). Customers are then categorized by various measures or attributes. Some of the more common segmentation groupings are geographic, demographic, psychographic, and behavioral. Geographic segmentation focuses on grouping consumers based on physical location such as by nation, region, and other categories.

Demographic segmentation assembles customers into groups based on “age, gender, family size, family life cycle, income, occupation, education, religion, race, generality, and nationality” (Sarvary & Elberse, 2006, p. 187). Psychographic segmentation divides consumers based on personality characteristics, or lifestyle preferences. Behavioral segmentation “divides buyers into groups based on their knowledge, attitudes, uses, or responses to a product” (Sarvary & Elberse, 2006, p. 189). Behavioral segmentation has subcategories, such as occasion segmentation, benefit segmentation, user status, usage rate, and loyalty status. Benefit segmentation has been a common way to cluster groups because this type of dividing consumers has been based on determining the benefits or advantages people have sought from a product. Then the customers were classified based on the benefit or benefits sought from the product.

Although a market can be segmented in numerous ways, segmentation requires certain elements and steps to be effective. The first requirement of segmentation is that the segmentation should be measurable, and then the segmentation must be accessible to the organization, so it can reach those customers categorized in the specific segment (Kotler & Armstrong, 2008). Next, the segmentation grouping must be substantial or large enough in size to make it worth the attention. An additional requirement of segmentation is that it needs to be differentiable.

The final requirement for segmentation to be effective is for the organization to

have the means to act on the chosen segment. For the steps of segmentation to be effective, the company needs to be aware of the benefits that the segment's customers want (Sarvary & Elberse, 2006). Once the entity has divided the market according to customer benefits, the final step is to discern observable variables and group customers based on these variables as well as the benefits that customers are seeking.

**Targeting.** After segmentation, a company must select the appropriate market to target. The “target market selection involves evaluating each market segment's attractiveness and selecting one or more of the market segments to enter” (Sarvary & Elberse, 2006, p. 2). Companies assess the desirability of a market segment by determining its segment size and competition, along with the availability of the company's resources and objectives (Kotler & Armstrong, 2008). Once a company has evaluated the various segments, then the company must select the number of segments to target, as well as the specific segments that the company will focus its marketing resources. When a company participates in differentiated marketing or segmented marketing, the company selects specific markets to focus their marketing efforts or messages. In selecting a market targeting strategy, the company must first assess its resources, product variation, market variation, and its competitors' marketing strategies.

**Positioning.** Subsequent to segmenting and targeting, the company defines how it wants the products to be positioned or defined by the selected segments (Kotler & Armstrong, 2008). Kotler and Armstrong (2008) defined product's position as “the complex set of perceptions, impressions, and feelings that consumers have for the product compared with competing products” (p. 203). Companies affect their position by developing a message that would appeal to their selected target markets. To have effective positioning statements, a company must answer three questions: “Who are the

customers, what is the set of needs that the products fulfills, and why is the product the best option to satisfy those needs” (Sarvary & Elberse, 2006, p. 3)?

**Marketing strategy.** Marketing strategy involved segmenting, targeting, and positioning (Alsem & Kosteljik, 2008). The process of developing a marketing strategy begins when a company questions how to compete in the desired marketplace. One of the main tools for market strategy development is the SWOT analysis, which explores and assesses the organization’s internal and external environments together as the foundation of determining how best to use the available products and resources to maximize market and financial success.

### **Marketing Higher Education and Application**

Marketing has become a more critical factor in the context of higher education, especially with the increased competition among institutions. Kotler and Fox (1995) defined marketing in terms of higher education as the “analysis, planning, implementation, and control of carefully formulated programs designed to bring about voluntary exchanges of values with target markets to achieve institutional objectives. Marketing involved designing the institution’s offerings to meet the target markets’ needs and desires” (p. 9). In order for value to be created, the market of the product must be studied and understood (Kotler, 1972). In terms of higher education, a higher education institution that concentrates on serving its stakeholders and creating value has a marketing orientation. In addition, the students at a market-oriented college should be considered as consumers, or customers (Kotler & Fox, 1995; Newman & Jahdi, 2009). Marketing in higher education seeks to appease the needs and wants of the consumers, which is primarily the students, by producing value for them (Hampton, Wolf, Albinsson, & McQuitty, 2009).

Although higher education institutions have used marketing at an increasing rate, research studies on the effects of marketing on this entity, as well as information on marketing processes and structure, have not been prevalent (Edmiston, 2008). Yet, the emergence of for-profit institutions and their intensive marketing strategies has influenced the use of marketing in higher education. In addition, the expansion in the number of colleges and universities in the United States, along with online and distance education teaching formats, have been additional factors in the application of marketing strategies in higher education. Another reason that colleges and universities have recently focused on marketing and improving their marketing strategies has been the influence of publicly available college rankings.

Colleges and universities have employed marketing strategies to help their programs remain viable. Institutions use marketing strategies and programs to be less susceptible to competition, as well as potentially gaining an increased understanding of their core values and attributes (Moore, 2004). Colleges and universities have been competing for students, as prospective students vie for admittance into the college of their choice (Maringe, 2006). In the climate of increased competition for students and increasing levels of scrutiny by various stakeholders, especially prospective students, growing numbers of colleges have begun taking a market-oriented approach (Moore, 2004). As a result, colleges and universities have used marketing strategies that have helped them to address specific needs and expectations of students (Lewison & Hawes, 2007). As students have more institutions of high earning to choose from, institutions must become more proactive and effective in seeking and retaining students.

A popular marketing strategy that colleges have used has been with a targetmarketing approach that “involves the market segmentation process and offers considerable opportunity for success within the higher education market” (Moore, 2004, p. 56). Colleges and universities need to select a strategy that meets the needs and wants of students and that the college can effectively manage (Lewison & Hawes, 2007). In addition, the strategy needs to match the institution’s positioning and mission. When universities position their institutions’ brand, their faculty, administrators, and staff should target the most appropriate market segments upon which they can build a effective communication strategy to reach these groups (Maringe, 2006). The communication strategy should include the institution’s strengths and capabilities that best meet the selected market segments’ needs and wants because students have become more active in seeking universities that specifically meet their needs.

As a result, universities should determine what the students actually desires rather than trying to market to students based on what the universities’ personnel think the students’ needs are. An example of branding being implemented in higher education was the University of Maryland that developed a national brand campaign (Edmiston, 2008). Maryland’s branding efforts consisted of a “marketing and communications office, development of a University logo, identification of core brand values and execution of a national \$650,000 branding campaign” (Edmiston, 2008, p. 160). As a result of the brand campaign, in 4 years, the University of Maryland increased their freshman applicants by 6,000 students, and, in 10 years, their incoming freshmen’s average high school grade point averages were raised by 0.74 on a 4.00 scale.

By targeting specific students, colleges and universities were able to focus their efforts and resources in meeting certain needs and wants. In regard to targeting in higher

education, colleges and universities must target those students who have a greater likelihood to attend their institution (Wright, 2008). The more successful colleges and universities have segmented and targeted students, the better results the institutions have with students' satisfaction. Wright (2008) stated, "Proper segmentation will ensure a product (curriculum) geared specifically for the appropriate target segment" (p. 893). Furthermore, Wright found that students' dissatisfaction decreased when their needs were met and their testimonials became positive, which also caused the institution's revenues to increase.

Strategic enrollment management became a common organizational construct in higher education in order to respond to increasing competition in college admissions (Kalsbeek & Hossler, 2009). Colleges and universities have turned to marketing concepts to promote their institution to prospective students. Kalsbeek and Hossler (2009) further stated, "There are clear and discrete institutional attributes that define a college's position in a structural marketplace" (p. 4). Some of the key concepts of strategic enrollment management include concentrating on marketing and communication, as well as providing effective customer service (Hallenbeck, 2007).

Strategic enrollment management requires data collection and analysis in order to make strategic decisions. Part of the data-collection process has included competitive and environmental analyses. Regarding marketing and communications, the starting point for colleges and universities has been the institution's mission statement. The students served by the institution and its market niche are determined by the college's defined mission. Hallenbeck (2007) asserted, "With an established and coherent mission, the institution can begin to craft compelling messages and build powerful images to reinforce the

perception it hopes to establish in the minds of the general public and specific stakeholders” (p. 9).

Community colleges have tailored their marketing strategies to fit their unique culture and needs, which entails having an open-door policy (i.e., open enrollment) that best attracts regional and commuter students to complement traditional student reenrollments (Kerlin, 2008). One of the main challenges faced by community colleges has been the open-door admission policy that allows all students who meet the admissions criteria the opportunity to attend. As a result, community colleges should implement segmented marketing and recruitment policies in an attempt to compete with other educational entities. Enrollment management has become a “pathway for community and technical colleges to sharpen their focus” (Kerlin, 2008, p. 14).

### **The Strengths-Weaknesses-Opportunities-Threat Analysis**

The SWOT analysis became a common model for strategic development that assesses a company’s or a program’s internal strengths and weaknesses within the overall context of its external opportunities and threats (Alsem & Kosteljik, 2008). When conducting a SWOT analysis, the organization evaluates its internal strengths or capabilities that differentiate it from its competition. Then internal weaknesses that are identifiable factors become areas that need to be improved with the goal of making them strengths or at least neutral attributes in the eyes of prospective customers. (Harvard Business School, 2006a, 2006b). When examining the external environment in a SWOT analysis, the organization attempts to identify potential threats and opportunities over which they have no control but to which they must respond effectively. By evaluating the internal and external environment, a company has determined its place in the industry, as well as discovered factors that could affect its future.

The SWOT analysis was developed at the Harvard Business School during the 1950s (Hung, 2006). The framework has been used since its development as one of the tools for strategic planning, especially as part of environmental scanning. The SWOT analysis was not widely understood or used in higher education and industry until 1963, when the framework was presented at a business policy conference held at the Harvard Business School (Ghemawat, 2002). The purpose of SWOT analysis, a simple strategic technique, was to identify factors that could influence the organization in the future (Andersen, 2007). Fine (2009) stated, “The whole purpose of completing a SWOT analysis for a business is to see whether your product or service is going to be viable” (p. 34). A primary use of SWOT analysis has been to assess whether or not the company has a place in the industry (McKechnie, Grant, & Katsioloudes, 2008).

The SWOT analysis helps an organization to determine its position in the marketplace, while assisting in the ongoing process of developing and maintaining solid a foundation for the organizations future (Fine, 2009). In addition, SWOT analysis aids an organization in gauging its standing from an internal and external standpoint (Paley, 2008). Organizations have used SWOT analysis for strategic planning purposes, upon which all company planning, structure, and resources will focus (Fullmer, 2009). By using SWOT analysis, an organization gains a better position to make informed strategic decisions (Andersen, 2007). This framework allows an organization to take the offensive, in terms of short-term and long-term strategies (Paley, 2008). The key to SWOT analysis is uncovering relevant elements that help the organization to make strategic decisions in regard to its future (Andersen, 2007).

**Higher education’s application of SWOT.** Higher education has effectively used the SWOT analysis process for various reasons. One reason for using the SWOT

analysis has been for strategic planning purposes so that the college or university can discover opportunities to grow and improve the college environment (Fathi & Wilson, 2009). In addition, colleges and universities have used the SWOT analysis to outline objectives, time lines, and benchmarks, while identifying the people who were responsible to meet these goals (Achampong, 2010). Another reason for employing SWOT analysis was for the purposes of self-evaluation and assessment reasons, as well as satisfying accreditation standards of evaluation (Fullmer, 2009). A subsequent reason for implementing the SWOT analysis was to determine the effectiveness of a curriculum or program (Karababa & Süzer, 2010).

**Description of SWOT.** The SWOT analysis looks at the organization in a broad sense from four perspectives (i.e., strengths, weaknesses, opportunities, and threats) to determine factors, trends, or patterns that affect the organization's future (Andersen, 2007). The SWOT analysis has been employed when individuals in the organization brainstormed from these four perspectives in an activity that helped to identify, prioritize, and consolidate information already known by individuals in the organization. The SWOT analysis has been an effective tool when an organization has applied the findings to the industry and world instead of just listing a company's strengths, weaknesses, opportunities, and threats (Hung, 2006). As such, it is an active strategy that should lead to change. The SWOT analysis has the capability to be structured as simple or complex as needed, depending on an organization's specific situations or needs.

**Internal analysis of SWOT.** The internal part of the SWOT analysis consists of examining the organization's strengths and weaknesses. The internal focus of SWOT analysis needs to be on the future as well as on the organization's capabilities and needed capabilities (Hung, 2006). When an organization's strengths are examined, the analysis

determines what elements make the organization unique, and these elements involve the organization's physical resources, culture, products, logistics, and communications (Paley, 2008). Examples of areas that have been considered as strengths are typically "capabilities, competitive advantages, resources, assets, people, experience, knowledge, marketing—reach, distribution, awareness, innovative aspects, location and geographical, price, value, quality, and accreditations, qualifications, certifications, processes, systems, IT, communications, cultural, attitudinal, behavioral, philosophy, and values" (Fine, 2009, p. 24).

Weaknesses refer to those factors that impede the efficiency of the organizations or that can be improved. Criteria examples of weaknesses are "gaps in capabilities, lack of competitive strength, reputation, presence and reach, financials, own known vulnerabilities, cash flow, start-up, cash-drain, effects on core activities, accreditations, and processes and systems" (Fine, 2009, p. 24). When an internal analysis is performed, a company looks at the strength of its brands (Harvard Business School, 2006b). The strength of the brand is scrutinized within the context of how to expand the organization's position in the marketplace. Another related marketing concept needed is when a company searches for its strengths and weaknesses as to its core competencies and how these compare to competitors or what the company excels at that is valued most by customers and perceived by them as being unique.

**External analysis of SWOT.** The external-analysis portion of a SWOT analysis entails an organization identifying opportunities and threats that it faces, while understanding the organization's customer by effective market segmentation. The "political, economic, social, technological, and competitive environments" (Dyson, 2002, p. 632) are scrutinized when performing an external analysis. Opportunities are identified

“in scanning the customer, competitor, industry, and environmental situations” (Paley, 2008, p. 8). Fine (2009) identified criteria examples of opportunities as the following: “market developments, competitors’ vulnerabilities, industry or lifestyle trends, technology development and innovation, new markets, niche target markets, business and product development, information and reach, partnerships, agencies, and distributions” (p. 26).

Threats are factors known to affect the organization’s future success. These threat factors include new products, legislative issues, environmental factors, and new competitors. Fine (2009) further named threat criteria examples as “political effects, legislative effects, environmental effects, competitor intentions, market demand, vital contracts and partners, sustaining internal capabilities, obstacles faced, insurmountable weaknesses, and sustainable financial backing” (p. 25).

The SWOT analysis of external factors begins with understanding the businesses’ customer (Harvard Business School, 2006a). Organizations must learn about their customers by asking questions to identify who their target customers are and to determine the needs not being met by competitors. This analysis extends to assessing the levels of customer loyalty toward the organization’s products and to determining how price sensitive customers are. Because questions about customers are numerous, a company can control the best customers through effective market segmentation. Customers can be divided and categorized in many ways, such as by age, gender, geographic location, types of users, and behavior. Another area that should be analyzed in the external environment is the larger competitive arena, which includes identifying the competition, the industry, and the attractiveness of the industry. In the external-environment analysis, the business needs to determine the competition’s strengths and weaknesses.

**Criticism of SWOT analysis.** Although SWOT analysis has been widely used because of its flexibility and familiarity, the framework has been criticized. A major problem with SWOT analysis is accurately and honestly identifying the organization's unique competences (Ghemawat, 2002). This process requires the organization to distinguish between long-term and short-term capabilities in determining these competencies. In addition, the person who conducts the SWOT analysis needs to be careful that he or she does not skew the results to produce favorable outcomes (McKechnie et al., 2008). The same thing is true for conducting an internal analysis, in which the identified strengths and weaknesses are actual current strengths and weaknesses rather than future or potential ones (Hung, 2006).

Another disparagement was the overreliance on the SWOT analysis by not utilizing other tools, which led to a narrow assessment and the failure to develop an action plan (McKechnie et al., 2008). Managers were tempted to select the SWOT analysis because of their familiarity of the tool based on their academic experiences from business school. A further criticism was that SWOT analysis was dated (Dyson, 2002). The theories of resource-based planning and competency-based assessment were suggested as possible replacements for the SWOT, but these two theories just expanded the internal analysis of SWOT. As a result, SWOT analysis has current value because it links the internal and external analysis and gives a solid foundation for strategic planning.

### **Competitive Strategy**

Competitive strategy correlated to how a company operated in its environment (Porter, 1980). The industry's structure that the organization competed in played a role in the strategies that the organization employed. An industry was defined as organizations that had similar products that were substituted for each other. Although all organizations

in an industry faced the same factors, the differentiating factor was how the organization responded to these elements. The importance of identifying these factors or forces was that the company explored how to either defend its position in the industry or be proactive in impacting the industry.

**Competitor analysis.** By conducting a competitor analysis, a company has a foundation for predicting future industry conditions (Porter, 1980, 2008). Competitor analysis involves examining competitors' future goals, current strategy, assumptions, and capabilities. Future goals take into account the factors that motivate the company to act. Current strategy refers to the strategies that the company has recently enacted, as well as its operating policies. Assumptions made by the organization are divided into two groups: (a) the organization itself and (b) the industry, including all competitors. The final element in competitor analysis includes identifying the capabilities, or its strengths and weaknesses. Competitors' strengths and weaknesses can be examined by utilizing Porter's five forces.

**Porter's five forces.** Porter's five forces were introduced by Michael Porter in 1979 and 1980 as a theory to evaluate an industry's attractiveness as well as its profitability in comparison to its competitive forces (Karagiannopoulos, Georgopoulos, & Nikolopoulos, 2005). Porter's five forces expand the emphasis from merely focusing on an organization's competitors to including external factors that could affect value. The central focal point of the framework of Porter's five-forces model is the intensity of the rivalry among the industry's competitors. The sides of the framework are the bargaining power of buyers and suppliers on each side respectively of the intensity of the rivalry. Above the center of the framework is the threat of potential entrants, which could cause

pressure on the rivalry among the industry's competitors. Below the center of the framework is the threat of substitute products or services.

The history, purpose, and limitations of Porter's five forces were examined to understand the applicability of the theory to this study. Michael Porter unveiled his theory, Porter's five forces, in 1979 when he had his article, "How Competitive Forces Shape Strategy," published in the *Harvard Business Review*. The purpose of Porter's five forces was to be "a useful tool for getting an analytical grasp on the state of competition and underlying economics within an industry" (Porter, 1980, p. 18). Porter's five forces encouraged companies to look beyond current immediate competition to other factors and elements that could encroach on the company's profitability and growth. When a company conducts a Porter's five forces, the organization determines how to be better prepared to face the competition and be better positioned with buyers, suppliers, and substitutes. Yet, one of the drawbacks of Porter's five forces is that the framework entails considering multiple factors in a qualitative methodology, whereas quantitative or statistical methods typically use fewer factors (Ghemawat, 2002).

**Higher education's application of Porter's five forces.** Due to Porter's five forces having been complementary to the SWOT analysis as a strategic planning tool, Porter's five forces have been used in higher education in similar ways as the SWOT analysis (Fathi & Wilson, 2009). The main use for Porter's five forces in higher education has been for strategic development and planning purposes (Martinez & Wolverton, 2009). Martinez and Wolverton (2009) suggested that Porter's five forces could also be used effectively in higher education for program evaluations and to help colleges and universities appraise the environment as a foundation for developing more cohesive and successful strategic plans.

**Industry analysis.** Porter (2008) strongly recommended that the industry must be correctly defined because “many strategy errors emanate from mistaking the relevant industry, defining it too broadly or too narrowly” (p. 91). An organization first analyzes its industry in the Porter forces model by surveying the industry’s competitors, potential entrants, buyers, suppliers, and substitutes (Porter, 1980). Although each of these forces must be examined individually, all of these factors should also be considered in how they jointly or interactively influence the organization’s success in the industry. As such, it would be an incomplete analysis if only one or two forces were considered independently. However, there is a logical and sequential approach needed by examining each of the forces in the specific order of the order indicated by the model.

The first force reviewed should be the industry’s competition, which is placed at the center of Porter’s five forces. Industry competitors relate to the contention that exists among an organization’s direct and known rival firms or organizations. The first element of intensity for the rivalry or competition refers to the number of competitors and their motivations to dominate or survive in the industry (Barrows & Frigo, 2008). The second element of intensity of rivalry is the strategy or basis with which the rivals compete with each other. Because of how an organization positions its products or services, some competitors may compete more directly than others because they have targeted the same customers.

Rivalry among firms in an industry is caused when firms struggle to gain a better position or standing in the respective industry than their competitors thought their business and marketing strategies (Porter, 1980). Specifically, firms contest each other in terms of price competition, communication, product attributes, and warranties. The intensity of competition depends on the number of competitors, strength of the

competitors, industry growth, cost to the firms, differentiation of products, and diversity of competitors. The number of competitors causes an industry to be relatively stable or unstable. Porter (1980) indicated that the greater number of competitors gives some firms a sense of confidence to make moves in the industry that go unnoticed. In terms of strength of a competitor, a strong firm in an industry influences the industry significantly and causes other firms to respond to their actions and product strategies.

The industry's growth directly affects the intensity level of rivalry. For example, slow growth in an industry causes more competition because firms fight over the smaller growth of new customers or increased consumption. On the other hand, Porter (1980) described how fast growth encourages less rivalry because firms can more easily grow at acceptable rates without intense competition because the industry is growing at or above the sum of capacity available from all competitors. Porter indicated in his model that cost to firms specifically relates to the firm's fixed costs and the difficulty of storing a product once created. In a high fixed-cost situation, firms have immense pressures to ensure that the product's capacity is maximized in an attempt to spread fixed costs over a larger number of customers or sales. Porter's model further described product differentiation as the dissimilarity among products in an industry (Porter, 1980, 2008).

The greater the product differentiation in the industry means that more variation among products offerings exists in the mind of customers, thereby resulting in less direct competition. As a result, customers have supplementary preferences and loyalties to a specific product because there are fewer similar alternatives available. According to the Porter (1980) model, greater competitive diversity results in less intense rivalry among competitors for the same customers. This diversity comes from both variations in product offerings and different marketing strategies (e.g., differentiation, cost leadership, and

niche target markets). However, diversification for diversification's sake is not effective, as Porter (1998) warned, "Diversification not closely tied to sustainable competitive advantage at the business unit level often destroys economic value" (p. 6).

**Potential entrants.** Potential entrants consider the ease or the difficulty for new firms or organizations to enter into an industry before they decide to enter the market (Porter, 1980). When considering the threat of new entrants, the factors that determine the degree of complexity in entering the industry are product differentiation, economies of scale, capital requirements, government policy, and distribution channel. Some companies have cost advantages that potential entrants do not have. For example, government subsidies have been given to established companies in industries designated as being critical to the national economy or safety. In regard to government policy, government has limited entrance into industries through the means of licensing, restrictions, and regulations.

Another threat of new entrants involved the number of customers who influenced others to purchase the product because of the familiarity and reputation of the product (Porter, 2008). The greater the power these factors had, the more difficultly new organizations experienced in entering the industry (Porter, 1980). As a result, the larger the entrant barriers are, the less tempted new organizations become to penetrate the industry. In addition, exit barriers also influence whether companies consider entering into an industry as being attractive. Having exit barriers refers to how challenging leaving the industry might be for an organization. High exit barriers make departing an industry difficult, thereby forcing organizations to remain even if profitability became less than desirable. As a result, high exit barriers are associated with greater risks that the organization would face if it entered the industry (Porter, 2008).

**Bargaining power of the buyers.** Porter's (1980, 2008) next force is the bargaining power of the buyers, which relates to how much influence customers have on the industry. The bargaining power of the buyers is reflected by requiring more services, higher quality, faster delivery or response, and lower prices from organizations in the industry (Porter, 1980). The power of the buyer depends on the customer's interest or emotional involvement for purchasing the product, interaction or engagement of purchase on the buyer, the number of alternatives available, the degree of reward to the buyer because of the acquisition, the importance of product's quality, and the extent of access or availability of industry's information to the buyer. The more products in the industry are similar, then there is an increased likelihood for customers to compare products and assert additional influence over companies (Porter, 2008).

The less loyalty or vesting that customers have in a product or company, the greater the probability those customers will switch products. When the purchase of a product represents a large investment made by the customer, the result is that the customer will compare products to ensure making the best selection that meet customer expectations, needs, and wants. When customers have the buying power, then needs and wants become demands (Kotler & Armstrong, 2008). When substitutes have similar value to the product, then the customer has been known to purchase the available alternative over the initially planned product (Porter, 1980, 2008), something that is especially true when the switch can be made with relatively little inconvenience or cost (Kotler, 1999).

**Bargaining power of the suppliers.** The fourth force considered by Porter (1980) is the bargaining power of the suppliers. Suppliers wield "bargaining power over participants in an industry by threatening to raise prices or reduce the quality of purchased goods and services" (Porter, 1980, p. 27). The number and supremacy of

suppliers, the lack of substitute products it sells to industry, the dependency of supplier's product to buyer, the importance of industry to the supplier, and the differentiation of supplier's products, all combine to established suppliers' power. If a supplier has the size or power to dominate an industry, then the supplier has the ability to influence the industry to its benefit (Porter, 2008). The fewer choices of substitutes present, the more likely the supplier has the power to affect the industry. Furthermore, the more the industry has relied on the supplier, the greater the difficulty the industry has to change suppliers (Porter, 1980). When suppliers have differentiated products, the industry does not have the ability to find that particular product from another source (Porter, 2008).

**Threat of substitute products or services.** The final force in Porter's (1980) model is the threat of substitute products or services. Substitute products or services refer to the number of alternates that are available that could replace the product or be interchanged for it. The more appealing substitutes are, then the greater the effect they have on the industry, especially on its profitability and product improvement. As a result, organizations within the industry made strategic plans based on substitutes (Porter, 1980, 2008). Many substitutes may not initially be evident to key industry participants because they have described the industry or marketplace too narrowly (Porter, 1998).

**Assumptions of Porter's five forces.** Porter (1979, 1980) built his five-forces model on three assumptions. The first assumption was "that an industry consists of a set of unrelated buyers, sellers, substitutes, and competitors that interact at arms length" (Ghemawat, 2002, p. 57). The second assumption was that a company could be profitable if it can ward off competitors and potential entrants because of the company's structural advantage. The final assumption was that a company has the ability with high degree of

certainty to forecast participant's actions and behavior to then peremptorily select the proper strategy to block new competitors.

**Revisions of Porter's five forces.** Porter (2008) updated his classic article, "How Competitive Forces Shape Strategy," and included factors such as industry growth rate, technology and innovation, government, and complementary products and services. He distinguished factors from forces because factors were short lived and contributed to the five forces. For example, Porter (1980) stated, "The best way to understand the influence of government on competition is to analyze how specific government policies affect the five competitive forces" (p. 10). Yet, Nalebuff and Brandenburger (1997) emphasized the importance of government as a player along with customers, suppliers, and competitors. They credited government as setting the rules of the game. In fact, the Porter's five-forces model has been expanded to include government or the public as the sixth force (Tan & Theodorou, 2009). This expanded context has been called the six-forces model; however, in this study, Porter's model will refer to either the five forces or the six-forces models.

### **Consumer Decision Making**

The concept of consumer decision making relates to how individual consumers make choices either in favor or rejection of products and services (Reynolds & Olson, 2001). Understanding the decision-making process of customers is essential to influencing the buyer's perceptions and behaviors, relative to the product or service. The first step in understanding the consumer decision-making process is to define the entire marketing process in terms of the organization's key customers. In other words, the organization must understand how targeted customers interact with the organization's products and services before, during and after the sales (Kotler & Armstrong, 2008).

The next step is to examine how the customer considers the product in the buying process and why each consumer either accepts or rejects the organization's product. From this understanding, the organization is better prepared to create the appropriate positioning strategy that more effectively engages the most desirable customers. The final step involves using the marketing strategy to communicate product's value to the target market (Reynolds & Olson, 2001).

Motivation, perception, learning, beliefs, and attitudes are the major psychological factors that affect a consumer's buying decision (Kotler, 1999). Motivation is summed up as what drives a person to act. A significant motivational theory is Maslow's hierarchy of needs (1943, 1954), which explains why people react differently to different need situations. According to Maslow (1954), higher level needs are not easily met or considered until after lower level needs have been met. Relative to marketing, Maslow's hierarchy of needs has been used to help marketers understand why certain products actually meet the needs of their consumers and what hierarchical need level is the most relevant to customers. Because needs are relative to time and conditions, it is important to understand the perceptions of customers and how those perceptions were developed, particularly about a specific brand or product (Kotler & Armstrong, 2008).

Simply stated, perception refers to how an individual interprets information. Perception refers to the dynamic state of an individual's interpretation of an external stimulus. It is dynamic because it changes with new information (Kotler 1999). Learning, as defined by Kotler (1999), is how a person changes based on his or her previous experiences. As such, perceptions are best thought of as current interpretation, whereas learning is more long term and cumulative. In contrast, Kotler described beliefs as

relatively stable opinions or thoughts that a person has about a certain topic, and attitudes are emotions or feelings that a person has that are either favorable or unfavorable about a subject or object.

When an organization understands the buying decision process, it has better comprehension of consumer decision making (Kotler, 1999). More specifically, Kotler (1999) framed the buying decision process in a five-stage model: (a) problem recognition, (b) information search, (c) evaluation of alternatives, (d) purchase decision, and (e) post purchase behavior. Problem recognition occurs when a buyer identifies a problem. The next step consists of the buyer researching information about a product. Then, the consumer begins an evaluation of alternatives based on needs, benefits, and attributes. After evaluating alternatives, the consumer makes a purchase.

The final stage is postpurchase behavior that considers the consumer's satisfaction or dissatisfaction with the purchase decision. Given recent advancements in technological access, customers have gained power in the purchase decision-making process because of increased information availability via the Internet and social networking services (Umit Kucuk & Krishnamurthy, 2007). As such, organizations that have not actively participated in exploiting these communications tools are passively choosing to become disengaged from the consumer decision-making process.

**Evaluation.** Fitzpatrick, Sanders, and Worthen (2004) stated, "The basic purpose of evaluation is to render judgments about the value of whatever is being evaluated" (p. 10). Fitzpatrick et al. also stated that the process of determining merit and worth is part of the purpose of evaluation. Five main alternative evaluation approaches exist, and three of these approaches (i.e., objectives oriented, consumer oriented, and participant oriented) are appropriate tools to evaluate dual enrollment. The objectives-oriented evaluation

approach focuses on the extent that objectives are achieved and is characterized by looking at discrepancies between objectives and performances.

The consumer-oriented approach concentrates on providing information to consumers about the product. In addition, the consumer-oriented approach uses formative and summative evaluation. The participant-oriented approach examines the multiple needs, values, and perspectives of program stakeholders to make judgments about the value or worth of the program being evaluated. The participant-oriented approach uses inductive reasoning and discovery. All three methods by Fitzpatrick et al. (2004) provide insights into dual enrollment, and each approach has strengths and weaknesses.

### **Acceleration Mechanisms**

The Florida legislature established incentive funding for AP, IB, and AICE based on students passing the standardized tests (OPPAGA, 2006b, 2006d). The AP and IB teachers receive money for every AP and IB test that a student passes. In addition, AP incentive funding requires the school district to allocate at least 80% of the revenue produced from passing AP scores to the high school that generated the money. Florida led the United States in AP and IB incentive funding. The reasoning behind the funding incentives was to encourage increased availability and participation. A key difference of dual enrollment funding from the other accelerated mechanisms was the districts did not receive incentive funding for participation (OPPAGA, 2006a). Instead, the state provided full-time equivalency funding to the district for dual enrollment participation, but the districts were not required to allocate any money to the schools that generated the revenue. As result of the funding issue, many school districts and high school administrators preferred the other accelerated mechanisms to dual enrollment options.

**Advanced placement.** The first acceleration mechanism reviewed was AP, and

“despite the numerous routes and opportunities for accelerated learning while in high school, the AP program dominates the public perception of advanced course work” (Sadler, 2010, p. 5). The review of the AP program consisted of the program’s specifics, history, original intent and current intent, the Florida Partnership, students’ participation in the state of Florida, and quality issues and concerns. The basic program specifics of AP are outlined in regard to governance, curriculum, eligibility, and college credit earned. The AP program is governed by the College Board and offers 37 courses and exams that cover 22 subject areas, including art, computer science, languages, and human geography (College Board, 2010a). The AP courses place emphasis on writing skills, problem-solving techniques, and study habits, and students do not need to meet any eligibility requirements. College credit is awarded by the participating college or university when a student passes the AP exam.

The AP program was derived from the need to allow gifted private school students the opportunity to test out of college introductory courses, as well as the necessity to meet national demands in the areas of math and science. In the 1950s, the AP program emerged from the two projects that were financed by the Ford Foundation’s Fund for the Advancement of Education (Santoli, 2002). Mr. John Kemper, the Andover Academy’s headmaster, spearheaded the first project that focused on the problem of academically gifted students being required to repeat courses that they had taken in high school during the first year of college as introductory courses. A committee of high school teachers and college professors from Harvard, Yale, and Princeton was formed to tackle the problem (Mollison, 2006; Santoli, 2002). As a result, the committee recommended examinations in core subject areas that would allow students to test out of introductory college courses if an acceptable score was obtained (Santoli, 2002). Part of

the driving force of the project came from the future national demands brought about by the Cold War (Mollison, 2006).

The second project, entitled the Kenyon Project, was composed of high school teachers, university professors, and representatives of the Educational Testing Service (Santoli, 2002). The Kenyon Project, officially known as School and College Study of Admission with Advanced Standing, began in 1950 at Kenyon College and was viewed as the practical program that would provide a foundation for what later developed into AP (Lacy, 2010). This group developed course outlines, syllabi, and tests. The first test was administered to students in 1954. These two projects, Mr. Andover's project and the Kenyon Project, were separate and parallel efforts that came together to form the AP program (Tai, 2008). A year later, the College Board took over the project and renamed it the AP program. The College Board offered its first AP examination in May 1965 (Thompson & Rust, 2007).

Throughout the years, the mission and intent of the AP program have changed to meet the demand of the program's participants. The original intent of the program was to serve academically gifted high school students from private prep schools and elite public high schools by offering them the chance to complete entry-level college courses prior to their actual college experience (Mollison, 2006). The mission has since shifted to encourage a broader array of students to tackle the challenging content (Dounay, 2006). Part of AP's mission was to be part of the solution to high school reform (Marklein, 2006).

The initial intent of AP's examinations was for placement purposes after students had been accepted into college, such that the number of credits a student needed to graduate remained unchanged (Talbot, 2007). Subsequently, Talbot (2007) described how

colleges soon began giving course credits for AP tests passed, thereby reducing the number of credits students needed to graduate, something that allowed students to reduce their course load and still graduate on time. Another departure from the program's original intent was the use of AP for college admissions, such that students without AP credits were less likely to be admitted than students who had earned AP credits (Marklein, 2006).

In addition to the shift of the mission and intent of the AP program, the AP exam has transformed over the years as the program expanded (Drew, 2011a). Initially, the AP exam was based on the material taught in introductory college freshman courses. As the number of students enrolled in AP courses increased, the passage rate on the AP exams declined. In order to respond to the expanding number of AP test takers, the College Board began to impart course descriptions of the topics covered in the course, while supplying the topics' percentage breakdown of the courses, which correlated to the proportion of material tested on the AP exam. Another contributing factor to the declining passage rate was the expanded course material included in the AP. As a result, Drew (2011a) reported a trend that developed in which AP teachers taught to the test in an attempt to increase students' passage rate on the AP exams.

As a means to encourage Florida high school students to challenge themselves academically, Florida established a unique relationship with the College Board that was called the Florida Partnership (National Governors Association, 2005). Although the agreement between the two entities began in 1999, the formalization occurred in 2004 when the Florida Partnership was written into Florida Statute as Florida Statute 1007.35 Florida Partnership for Minority and Underrepresented Student Achievement (College

Board, 2013c, 2013d). The College Board's Florida and southern regional offices, along with the Office of Equity and Access in the Florida Department of Education, managed the relationship. The purpose of the partnership was to increase student achievement and college readiness, especially among underrepresented and disadvantaged students (OPPAGA, 2013).

The Florida Partnership had established goals that centered on increasing high school student participation in the AP program. One of the goals of the Florida Partnership was to enhance student participation in AP courses (National Governors Association, 2005). Although all 67 Florida school districts had access to AP courses, during the 2001-2002 school year, only 55 school districts had high school students participating in AP course work (OPPAGA, 2006b). By 2010, an increase of school district participation in AP had occurred, but some school districts still did not offer AP course work (Florida Department of Education, 2010).

The state of Florida has increased overall participation rate and minority participation rates (see Table), but the passage rate on exams in terms of overall and minority groups has not been successful (College Board, 2011a, 2011b). In terms of overall AP participation rate among seniors graduating and taking an AP exam, the state's percentage from 2001 to 2010 was 160%. African American graduating seniors who took at least one AP exam rose by 324%. During the same time period, Hispanics' participation rate changed by 238.69%. Asians grew by the least percentage change, 127.71%. The overall passage rate of an AP exam, which is a score of 3 or higher, declined from 61.30% in 2001 to 51.46% in 2010. Although African Americans' and Asian Americans' AP exam passage rates remained stagnant, Hispanics' AP exam passage rates rose over 6%.

Relative to the rest of the nation, Florida has been most successful in expanding the participation rates in AP but has struggled in the area of AP exam passage rates. Florida placed third in the percentage of U.S. public schools in the class of 2000, and this group ranked seventh in college level mastery of an AP course (College Board, 2005). In 2004, Florida had the highest participation rate for AP exams, but ranked in the bottom third of all states in the pass rates for students who took AP exams (College Board, 2009). Because of the Partnership, in 2006 and 2007, Florida increased the number of public school AP exam takers by the largest amount in the nation (Butler, 2007). In 2010, Florida was third in the number of students in the nation taking an AP exam and fourth in the nation in the number of students passing the AP exam, which meant that a student scored a 3 or higher on the test (Smith, 2011).

Table

*Trends by Ethnicity of State Senior Participation in Advanced Placement*

Ethnicity	Year									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
African American	2,183	2,621	3,173	3,725	4,026	4,828	5,608	6,437	7,551	9,272
Hispanic	4,870	5,746	7,252	8,299	9,387	10,678	11,823	13,197	14,443	16,494
American Indian	82	87	114	126	138	166	186	212	189	225
Asian	1,494	1,665	1,779	2,011	2,302	2,460	2,796	2,969	3,206	3,402
White	14,627	16,566	18,620	20,349	22,189	23,743	25,832	27,885	29,071	31,143

The expansion of AP has caused various groups to have different concerns about the quality of the AP program (Sadler, 2010). Some were concerned that, with AP's rapid expansion, the College Board had diluted its standards in order to satisfy its various stakeholders. Colleges and universities responded to the demands of their respective academic departments by raising the passing score requirement for college credit to be rewarded. Drew (2011b) stated, "In 2007, Massachusetts Institute of Technology, for instance, stopped giving credit for AP biology and developed its own placement exam" (p. B2). Because of the recognition of AP by the state and the public, high schools had eliminated their own advanced and honors courses in favor of AP courses (Sadler, 2010). This action drew criticism from AP critics because of their opinion that the AP curriculum served as test preparations for the subsequent standardized exams. Yet, others questioned spending scarce resources on a program that sometimes produced fair to poor results. Financial resources were diverted from other programs that served the individual high schools better as well as recorded good results in a consistent manner.

Although the AP program has grown dramatically by offering over 30 subjects and having 1.8 million students take over 3.2 million tests (i.e., an average of 1.77 tests per student), the program has been criticized for the amount of material upon which students have been tested, especially in AP sciences and history courses (Drew, 2011a). In addition, the program has been disparaged for promoting memorization and discouraging teachers to spend considerable time on important topics because of the sheer quantity of material that students needed to be exposed to in preparation of the test. Drew (2011b) stated, "AP teachers have long complained that lingering for an extra 10 or 15 minutes on a topic can be a zero-sum game, squeezing out something else that needs to be covered for the exam" (p. B2).

Another criticism of the program was that curriculum mainly consisted of PowerPoint presentations, and, in terms of the sciences, the majority of high school AP science teachers conducted uniform scientific laboratory exercises that discouraged scientific discovery or creativity. A further criticism of AP science courses was that students were not encouraged to develop their own scientific lab experiments. Likewise, another condemnation of the AP program that Drew (2011b) highlighted was the following:

Courses had failed to keep pace with research on how people learn: Instead of listening to lectures, more real learning takes place if students spend more time going into greater depth on fewer topics, allowing them to experience problem solving, controversies and the subtleties of scholarly investigation. (p. B2)

As a result of these and other criticisms, the organization of the College Board decided to overhaul the curriculum of the AP courses (Drew, 2011b). Previously, the personnel of the College Board concentrated on the AP exams instead of the AP courses. The new AP focused on promoting critical thinking instead of memorization.

Hundreds of college teachers and high school teachers worked collaboratively with the College Board to redesign the AP courses. The College Board's Vice-President for Advanced Placement, Mr. Trevor Packer, stated, "We really believe that the new AP needs to be anchored in a curriculum that focuses on what students need to be able to do with their knowledge" (Drew, 2011b, p. B2). Consequently, the materials in the courses have been reduced with the focus being on depth, and teachers have more flexibility in instructing students. The AP teachers were provided with a curriculum framework and standards for each AP course. In addition, the new AP has updated exams that correlate with the changes made to the courses.

The College Board has developed a time line for the redesigning of selected courses and accompanying exams. The new AP program started with the AP German and AP French courses. The planned date for AP Biology and AP U.S. History was for the 2012-2013 academic year (Drew, 2011a). Yet, the College Board delayed releasing the new U.S. History curriculum because the AP U.S. History teachers criticized the course for being too vague (Drew, 2011b). Accordingly, the college history professors desired that additional material from the time periods of 1491 to 1607 and 1980 to present should also be included in the new course. As a result, the College Board decided to postpone the implementation date in order to clarify the material for study, as well as gain higher percentage approval ratings from AP U.S. History teachers. The other courses that have been arranged to undergo significant revisions were physics, chemistry, European history, world history, and art history (Drew, 2011a, 2011b). The scheduled exams for these courses were planned for 2014 or 2015.

The new AP plan has faced criticism and apprehension from teachers. For instance, Bremser (2011), a professor of mathematics at Middlebury College, wrote a letter to the editor of the *New York Times* condemning Mr. Packer for delaying the modification of the AP mathematics courses. The College Board has no immediate plans to alter AP English and math courses because Mr. Packer (Drew, 2011a) has deemed the content manageable. Bremser voiced concern that students hasten through high school mathematics classes in order to be able to take AP calculus. In addition, students also enrolled in other AP courses in different subjects to improve their transcripts. The end result, from Bremser's viewpoint, was that some of these intelligent, hardworking AP students have inadequate algebra skills. Bremser articulated in her letter to the editor that the shift of AP's purpose of serving students who were ready for the challenging courses

to assisting those students for college admissions' purposes, who might not be ready for the rigorous curriculum, has contributed to the problem.

Specifically, Bremser (2011) stated that she “would rather teach calculus to a student with solid algebra skills and no AP experience than to one who took calculus too soon” (p. B2). From the high school standpoint, AP teachers were concerned about the changes to the course curriculum, especially in the sciences because of insufficient high school lab facilities and the lack of resources to improve the labs (Drew, 2011a). In addition, the new math requirements in AP Biology might discourage some students from taking the new course. Another concern about the modifications was how AP teachers would adjust to having less control over the direction of the class because ideally students would dominate the direction of discussions more than in the past.

**International baccalaureate.** The second acceleration mechanism reviewed was the IB. The examination of the IB program consisted of program's specifics, program's curriculum, program's history, program's history in Florida, program's mission and purpose, high schools' participation, and high school students' participation.

The program's specifics have been detailed in regard to global presence, headquarters, and program's details in relation to secondary and higher education. The IB program was an international acceleration mechanism that was offered in 139 countries (International Baccalaureate Organization, 2013a). The organization governs IB and is headquartered in Geneva, Switzerland. The diploma program for high school students was a 2-year curriculum that culminated with final examinations. To be considered an IB school, the high school must offer at least seven IB courses. In addition, the prospective IB school has to undergo a lengthy application, process, trial period, and site visit to be an

approved IB school (Sadler, 2010). College credit was awarded only if the student passed an IB exam. Leading universities worldwide have accepted the IB diploma. In fact, the IB curriculum was designed to help students meet various international university entrance standards (OPPAGA, 2006b). By having earned an IB diploma, students have met entrance qualifications into most European universities.

The specifics and structure of the IB curriculum have been explored. The IB curriculum contained six subject groups that consist of language, second language, individual and societies, environmental sciences, mathematics and computer science, and the arts (International Baccalaureate Organization, 2013a). Three core areas (i.e., extended essay, theory of knowledge, and creativity, action, and service) were central to the philosophy of the IB diploma. The extended essay requirement was a 4,000-word original research essay, and the theory-of-knowledge requirement was a critical thinking class (Sjogren & Campbell, 2003). The creativity, action, and service portion of the IB curriculum required at least 150 hours of participation in extracurricular activities and community service.

Three significant events occurred that affected the development and history of IB. In 1962, a group of 50 social science teachers met in Geneva and started the development of the first course, Contemporary History, which was completed a year after the meeting (Bunnell, 2008). Another occurrence at this meeting was that the term *International Baccalaureate* was coined. The next major event happened in 1965 when over 40 educationalists met and fleshed out the IB hexagonal framework, which remains relatively intact today. Another main occasion in the formation of IB was in 1967 when the 7-point scale was built and an experimentation period was announced during a curriculum meeting. In 1968, the IB program was developed in Geneva (Gemma, 2004).

An additional change to IB was in April 2006 when the organization inserted the IB learner profile (Bunnell, 2011a). This profile was a set of learning outcomes for the IB program that promotes a long-term vision of education for the 21st century (International Baccalaureate Organization, 2008b).

The IB learner profile has 10 learning characteristics that students strive to attain through the assistance of the IB program (International Baccalaureate Organization, 2008b). The first characteristic of the learning profile was to become an inquirer, which meant developing a love for learning, as well as curiosity, especially in the areas of research and inquiry. The second characteristic of the IB learner profile was to become knowledgeable in various disciplines from both a local and global standpoint. Becoming a thinker was the third characteristic of the profile, which encouraged students to think critically and creatively and to make ethically and reasoned decisions. The fourth characteristic of the learning profile was being a communicator, which entailed the ability of speaking more than one language and in a variety of modes as well as collaborating with others. Being principled was the fifth characteristic in the learner profile. Integrity and honesty, along with a sense of fairness and justice was how the term *principled* was defined in the learner profile.

The sixth characteristic detailed in the learner profile was for the learner to keep an open mind in terms of valuing other cultures and perspectives, as well as respecting one's own culture and traditions. In the seventh characteristic of the learner profile, caring was defined as having compassion and empathy for others, as well as possessing a firm commitment to serving other people and making a difference in people's lives. A risk taker, eighth characteristic of the learner profile, meant that a person is willing to explore new ideas and strategies with confidence and conviction. The ninth learner

profile characteristic was appreciating balance in one's life as well as others in terms of intellectual, physical, and emotional contexts. The 10th characteristic of the IB learner profile was being reflective and assessing one's own strengths and weaknesses with the intent of increasing professional development and continually learning about oneself.

The IB's mission and purpose has changed over the years, along with the type of schools that are attracted to this acceleration mechanism. Originally, IB came about as a response for the need to have a common curriculum among the independent IB schools worldwide (Gemma, 2004). Gemma (2004) stated, "The intent was to provide a comprehensive precollege curriculum that would enable expatriate students to matriculate in their home countries or elsewhere in the world" (p. 18). Yet, the mission has involved into an acceleration mechanism with a global emphasis. Brad Richardson, the International Baccalaureate Organization's Regional Director for North America, stated that the IB mission "is to make a better world through intercultural learning" (Schachter, 2008, p. 28).

In 2007, IB initiated a new branding campaign with a new logo and corporate identity that was entitled IB World (Bunnell, 2011a). As a result of IB's mission shifting, the type of IB schools has changed from the original ideology-driven schools to more market-driven schools that have looked to establish a niche or are dissatisfied with the AP program (Bunnell, 2008). In addition, IB has a major presence in public schools with approximately 92% of the IB world schools in the United States being from this sector (Bunnell, 2011a). Another major change that reflects a shift in the IB's mission was when the IB program added a primary and middle school curriculum in the mid 1990s. Yet, only small numbers of schools actually have the full range of IB curricula.

The IB's presence in the state of Florida began in the early 1980s (Florida Postsecondary Education Planning Commission, 1997). During the 1983-1984 school year, Florida started its IB program at the following three schools: Eastside High School in Gainesville, Stanton College Preparatory in Jacksonville, and St. Petersburg High in St. Petersburg. At the end of the 1986-1987 school year, the first IB graduating class completed the program.

High school student participation in the United States, Canada, and Florida has been examined. Although IB was considered to be a foreign credential, two of the largest countries that participated in IB were the United States, with 668 IB schools, and Canada, with 89 schools (Sadler, 2010; Sjogren & Campbell, 2003). In 2004, Florida was second in the United States with 40 IB diploma-awarding schools and ranked first in the number of students participating in the program with 5,618 students (OPPAGA, 2006b). In regard to IB student participation in 2004, Florida had over 1,000 more students participating in IB than the second state, California.

In 2008, the top five states in the number of IB schools were Florida, New York, Virginia, Texas, and California, and the combined five states composed 40% of the IB participation in the United States (Bunnell, 2011a, 2011b). Based on a report by the OPPAGA, 25 of 67 Florida school districts offered the IB program during the 2001-2002 school year, and two school districts were newly authorized during the same time frame (OPPAGA, 2006b). The number of school districts participating in the IB program increased to 30 during the 2008-2009 and had an enrollment of 10,206 students (OPPAGA, 2013).

**Advanced international certificate of education.** The third acceleration mechanism to be reviewed was the AICE. The program was introduced in 1994 by

Cambridge University to prepare students for honor degree programs (Cambridge International Examinations, 2013b). To have earned an AICE diploma, students were required to study subjects from three curriculum areas, but they were allowed to tailor their studies based on their interests and abilities. The three curriculum areas consisted of mathematics and science, languages, and arts and humanities. The AICE has two levels of study: (a) international advanced (A) level, 1-year course; and (b) advanced subsidiary (AS) level, 2-year course. In order to earn an AICE diploma, students must have passed an equivalent of six credits. By having passed the AS level, students were given a full or one credit, and students who were successful with the A level were awarded a double or two credits. College credit was received when a student passed AICE examinations.

The AICE program has been recognized by U.S. colleges and universities as a valuable program in the admissions process, as well as students being awarded college credit when either passing AICE exams or when earning an AICE diploma. All Ivy League universities recognized the Cambridge International AS and A levels (Cambridge International Examinations, 2011). In addition, 49 of the top 50 colleges and universities ranked by *U.S. News and World Report* accepted the Cambridge International AS and A levels. Christopher Guttentag, Dean of Undergraduate Admissions for Duke University, valued Cambridge students because they possessed the critical thinking, reasoning, and communication skills that Duke wanted students to have when deciding admissions into their undergraduate programs. Another dean of admissions, Stuart Schmill, the Dean of Admissions at Massachusetts Institute of Technology found that the Cambridge students, who have studied AS and A levels, have been successful at the college. He attributed the students' success to the depth of study in a subject matter required by the AS and A

levels, as well as the engagement in which students must participate to meet the design of the Cambridge program.

The history of AICE in Florida and the participation in the program was examined. Introduced in the United States in 1995, the Florida Department of Education piloted the program for 3 years (Eason, Reach, & Sismey, 2004). Beginning in 2001, any high school in Florida was able to offer the AICE program. During the next year, 2002, the Florida legislature recognized AICE as a state-funded acceleration mechanism. The University of Florida's director of admissions conducted a pilot study of the AICE program from 1999 to 2001 to compare the first-year grade point average of students in the AICE program at the University of Florida with the grade point averages of students participating in the state's other acceleration mechanisms, and the results were found to be most favorable to AICE students (Cambridge International Examinations, 2013h).

In the 2007-2008 school year, the AICE was offered in 14 school districts with approximately 2,171 Florida high school students participating in the program (OPPAGA, 2009c). The AICE program increased to 2,524 students during the 2008-2009 school year, which was approximately 1% of the high school student population (OPPAGA, 2013). The OPPAGA did not study the AICE when studying the other accelerated mechanisms because the students in the cohort studied were all the students who graduated from a Florida public high school in the 2001-2002 school year, when the AICE was just beginning (OPPAGA, 2006b).

**College-level examination programs.** The fourth acceleration mechanism reviewed was the CLEP. In 1965, the CLEP began because the Educational Testing Service wanted to provide a mechanism for students to gain college credit based on knowledge obtained from their life experiences (Beaver & Paul, 2007). The initial

purposes of CLEP were to “convert life experiences into college credit, allowing students to test out of college courses if they could demonstrate a certain level of competency, and decrease time to degree”(Beaver & Paul, 2007, p. 13). The College Board governs CLEP, and the mechanism has allowed students to demonstrate proficiency in a subject area that consisted of 34 disciplines. The CLEP has offered exams in the areas of composition and literature, foreign languages, history and social sciences, science and mathematics, and business (College Board, 2013a).

Exam questions were developed by college faculty, and then another faculty committee from universities in the United States selected exam questions relating to their subject areas (Beaver & Paul, 2007). The exams covered course material that a student would have taken in the first 2 years of college. Any student was eligible to take the CLEP exam and earn college credit by passing the exam (College Board, 2013a). Most exams consisted of 100 multiple-choice questions, and, when students answered at least half the questions correctly, they passed the exam (Beaver & Paul, 2007). Approximately 2,900 colleges have been given credit for passing CLEP exams, and 1,300 testing centers administer approximately 200,000 CLEP exams yearly (College Board, 2013a). In Florida, during the 2004-2005 school year, 9,656 students took 11,477 CLEP tests, with a 76% passing rate that was above the national average of 71% (OPPAGA, 2006c).

**Dual enrollment.** The final acceleration mechanism reviewed was dual enrollment, which offers direct access to college-level courses (Honawar, 2005). Dual enrollment was a program that permitted “high school students to simultaneously earn credit toward high school completion and a career certificate, or an associate or baccalaureate degree at a Florida public institution” (Florida Department of Education,

2007b, p. 1). In Florida, to be eligible for dual enrollment, a student must have earned a 3.0 unweighted grade point average to enroll in college credit courses or a 2.0 unweighted grade point average to enroll in career certificate courses. Subsequently, students must have passed the appropriate section of the college placement test, American College Test, or Scholastic Aptitude Test in order to meet the prerequisite test score. In addition to grade point average and test score requirements, the students needed to have been recommended by their high school guidance counselor and principal.

In Florida, the dual enrollment program has certain quality standards that have been established to create consistency throughout the state. The categories of these standards are students, faculty, curriculum, environment assessment, and strategic planning (Florida Department of Education, 2007d). In the students' category, the standards focused on student's eligibility and standards, as well as joint AP and dual enrollment courses. The next category concentrated on faculty credentials, transcripts, mentoring, and observation. The dual enrollment faculty must meet all accreditation requirements and guidelines for postsecondary instructors in courses or disciplines.

The next area in the statement of standards was curriculum. Course content and objectives, syllabus requirements, final exam and expected learning outcomes, textbooks and instructional materials, tests and assignments, and grades were covered in this section. Subsequently, the statement of standards tackled the classroom atmosphere, as well as course expectations and educational planning. The fourth section described assessment and accountability, which concentrated on grade analysis of subsequent course success, course and instructor evaluation, consistency in standard assessments, grade comparison of early college and regular student grades, and periodic program

review. The final section discussed the interinstitutional articulation agreement between school districts and postsecondary institutions.

A factor that has caused the value of dual enrollment to come into question involves the biases against the program that have been reported among the school districts, high school administrators, and guidance counselors. In terms of financial incentives, school districts and high school administrations received more funding from other acceleration mechanisms (Florida Department of Education, 2007c). As a result, school district personnel promoted these acceleration mechanisms over dual enrollment (Hunt, 2007). In addition, guidance counselors endorsed other acceleration mechanisms due to their administration's support and state universities weighting the other mechanisms higher than for dual enrollment (Hunt & Carroll, 2006).

State universities recalculated students' grade point averages and awarded each dual enrollment course an extra half point, whereas the other acceleration mechanisms courses were given an extra full point (Florida Department of Education, 2007c). One of the main barriers that prevented students from participating in the college dual enrollment program was the state universities' bias against dual enrollment in admissions' weighting (Hunt & Carroll, 2006). The state university system of Florida awarded a half university admission quality point for a dual enrollment course, whereas AP and IB were awarded a full quality point (Florida Department of Education, 2007c).

With the two flagship universities (i.e., University of Florida and Florida State University) accepting only approximately 40% of their freshman applicants, students who were planning to apply were discouraged from taking dual enrollment because they wanted to have the best chance possible to gain admittance to a major university (Florida Department of Education, 2007a). Not only was the bias against dual enrollment shown

in the admissions quality points, but also state university system officials have publicly expressed their counterproductive attitude toward dual enrollment (Rasch, 2004). The reasoning for their preference was that dual enrollment was not considered as rigorous for undetermined reasons. Yet, admissions weighting of dual enrollment was equalized in March 2008, when the board of governors passed a regulation that required dual enrollment courses that met the core state university system admissions requirement to be weighted the same as AICE, AP, and IB (Florida Department of Education, 2008).

Fincher-Ford noted that dual enrollment programs began in the early 1970s (Kim, 2006; Kim, Kirby, & Bragg, 2006). The first notable partnership between secondary schools and postsecondary school was Syracuse University's Project Advance (Kim, 2006). This program started in 1973 with the intent to minimize senioritis and was targeted to high achieving students. During the same time frame, the Middle College High School program at LaGuardia Community College began (Heath, 2008). The intent of this program was aimed at helping the transition from high school to college for at-risk students or students with the high likelihood of dropping out. This program offered extensive counseling, faculty, and peer support in an academic rigorous environment (Kim et al., 2006).

Like other parts of the United States, Florida was greatly influenced by the 1971 Carnegie Commission on Higher Education report, *Less Time, More Options*, which suggested that the bachelor's degree be shortened by a year and called for more alignment of the curriculum between secondary and postsecondary education (Hunt & Carroll, 2006). The state of Florida started dual enrollment shortly after the report was released. In 1973, the state legislature enacted the Florida Statute FS 240.116(1) that allowed high school students the option of college access programs such as dual enrollment (Heath,

2008). Three primary policy goals for dual enrollment identified in state statute were “to shorten students’ time to degree, to broaden the scope of curricular options, and to increase the depth of study in a particular subject” (Hunt & Carroll, 2006, p. 40).

In 1979, Florida’s accelerated mechanism program was created and represented “one of the oldest state-sponsored academic acceleration programs in the country” (Hunt & Carroll, 2006, p. 40). The dual enrollment program’s mission was expanded in the mid-1980s to include enhancing the secondary academic curriculum. The enlargement was a result of the state wanting to respond to the Carnegie recommendations and the findings of the *A Nation At Risk* report. During the 1990s, the dual enrollment program’s purpose continued to expand to increasing students’ participation and providing more dual enrollment courses to high school students. Home school students, private school students, and students with disabilities became eligible to participate in dual enrollment during this period.

### **State of Nation**

In the United States, the participation in acceleration mechanisms varied among the programs. In a report by the Western Interstate Commission for Higher Education (2006), “based on 2002-2003 data, 71% of public high schools offered courses for dual credit, 67% offered AP courses, and 2% offered IB courses” (p. 2). The AICE, the other acceleration mechanism examined, has approximately 130 to 140 high schools in the United States participating in the program.

In terms of dual enrollment, the United States had 26 states with comprehensive dual enrollment programs, whereas limited dual enrollment programs existed in 21 states (Harnish & Lynch, 2005). In the 2002-2003 school year, dual enrollment had 1.2 million

enrollments in these courses. During the same time frame, approximately 680,000 high school students took college credit courses as part of the dual enrollment program (Kleiner & Lewis, 2005). From a postsecondary perspective, 2,050 postsecondary institutions participated in dual enrollment (Honowar, 2005). In 2010, Secretary of Education Arne Duncan stated the following:

More than 70% of high schools now offer dual credit courses to students—and in states with longstanding dual enrollment programs, anywhere from 10% to 30% of juniors and seniors are earning college credit for dual enrollment courses. (U.S. Department of Education, 2010, p. 3)

On a nationwide level, analyzing trends, strengths, and weaknesses of dual enrollment concurrent enrollment could be difficult because no data set for state-by-state information was available (Klein, 2007).

Yet, for the Blackboard Institute, Barnett and Stamm (2010) developed a report about dual enrollment and examined state policies about dual enrollment. They discovered that 46 states had statewide policies, and four states had policies set at the local district and institutional level. In terms of mandatory dual enrollment participation, 12 states had a directive for high schools and eligible public postsecondary institutions to participate in dual enrollment, and 21 states allowed voluntary participation for secondary and postsecondary institutions.

Another state policy area investigated was the type of college partners that were involved in dual enrollment (Barnett & Stamm, 2010). Five states allowed only community colleges to be involved in dual enrollment. However, 39 states permitted both 2-year and 4-year public higher education institutions to admit dual enrollment students. In terms of authorizing private, proprietary, and tribal colleges to participate in dual

enrollment, 23 states allowed these postsecondary colleges to enroll dual enrollment students.

Another area that Barnett and Stamm (2010) studied was the location of dual enrollment courses and state policies. Two states had policies that specified dual enrollment courses to be taught only at the college campus. Dual enrollment courses were taught at either high schools or colleges in 30 states. Ten states allowed dual enrollment courses to be taught at locations besides high schools or colleges. Eighteen states did not have policies that denote the location of dual enrollment courses.

A further dual enrollment area studied was student eligibility in terms of grade point average, grade level, written approval or recommendation, college entrance requirements, and other eligibility requirements (Barnett & Stamm, 2010). The grade point average was set at a minimum in seven states, whereas three states had an established minimum grade point average only in certain circumstances. In regard to grade level, the states' policies varied greatly, with nine states allowing students from ninth grade to 12th grade to participate in dual enrollment and 20 permitting 11th and 12th grades to take part in dual enrollment.

Another policy reviewed concerned written approval or recommendation required for dual enrollment eligibility, and Barnett and Stamm (2010) discovered that 22 states mandated this requirement. The next policy area researched was college entrance requirements, and 25 states specified admissions standards. The final part of student eligibility was other entrance requirements that ranged from parental permission to requirements of certain high school courses to passage of state assessments, and 17 states had this policy. Yet, five states had flexibility in the section of other student eligibility requirements depending on the program or other circumstances.

Other areas that Barnett and Stamm (2010) investigated were placing limits on credits earned as dual enrollment students, earning dual enrollment credit, ensuring quality standards, and transferring dual enrollment credit. In terms of capping dual enrollment, four states restricted the number of courses and hours taken as dual enrollment students with some states inhibiting students from taking more than 30 credit hours for an academic year. Yet, 29 states had no policy constraining the number of credits a dual enrollment student earned while participating in the programs.

Other policies related to the capping of dual enrollment were the enrolling of dual enrollment students as either part-time or full-time students, which 10 states had this policy, and a policy that allowed the college to establish dual enrollment cap was present in two states. The ability to earn dual credit referred to how the credit was counted for at the high school level and the collegiate level. The most popular policy for earning dual enrollment credit was the ability for the students' credit to count both as high school and college credit, and 26 states had this policy. In contrast, one state had a policy that dual enrollment accounted for high school credit only, and four states permitted only college credit to be given for dual enrollment courses. Conversely, 13 states had no policies about how dual enrollment credit was to be counted.

The next policy studied by Barnett and Stamm (2010) was ensuring the quality of the dual enrollment program. The quality assurance policy existed in 29 states and ranged from instructors' qualifications to instructors' training to instructor's status as adjunct faculty to instructors' syllabi reviewed by full-time faculty. In this section, the final policy area investigated was the transfer requirements of dual enrollment credit. Three policies that concerned the transferring of dual enrollment credit were requiring public 2-year and 4-year colleges and universities to accept dual enrollment credit, not

necessitating credit to be given for dual enrollment, and no transfer of dual enrollment credit policy (Barnett & Stamm, 2010). The states that had these policies were relatively even, with 15 states requiring dual enrollment credit to be awarded, 15 states providing no direction to colleges and universities to give credit, and 18 states lacking any policy about the transferring of dual enrollment credit.

The last area of state policy to be examined involved the subject of funding in relation to funding received from the states to the high schools or to the colleges and to the paying of tuition (Barnett & Stamm, 2010). In terms of funding policies for the high schools that participate in dual enrollment, the funding varied from (a) the same level of funding, (b) lower level of funding, or (c) funding not specified. The largest category was the one that funds the high schools equally for dual enrollment students as it does traditional high schools. Thirty-one states had this policy of equal funding. The next largest category with eight states was the category of equal funding for dual enrollment students and traditional high schools, but with qualifications.

The other categories of funding for participating dual enrollment high schools were less funding with four states having this policy, no particular policy with six states having this policy, and one state received at different levels with the determinant being specific programs. In regard to the dual enrollment funding at the postsecondary level, Barnett and Stamm (2010) found that, like the secondary funding, the funding ranged from equal funding to less funding to no particular funding. The first category was equal funding for both dual enrollment students and traditional college students, with 38 states having this particular policy. Another category was equal funding with special qualifications, and two states had this policy. Additional categories were less funding for dual enrollment and traditional college students, with one state having this policy and no

specified policy for funding for dual enrollment student at the postsecondary level and eight states having no policy.

All 50 states and the District of Columbia offered AP classes (College Board, 2005). In 2009, the number of schools whose students took AP exams was 17,374 (College Board, 2009). The number of high school students who participated in AP was 1.6 million, with approximately 2.7 million exams taken (Farkas & Duffett, 2009). A year later, 1.8 million students were enrolled in one AP class and over 3.2 million exams were taken (College Board, 2010a). In 2010, the number of seniors graduating from high school was over 3 million students, with 28.3% of the graduating seniors taking an AP exam, which numbered over 850,000 seniors who took an AP exam. Of the seniors who took an AP exam, 508,818 seniors in 2010, or 16.9% of the senior class, passed the AP exam with a score of 3 or above. Secretary Arne Duncan stated, “Literally twice as many students took an AP course this year as a decade ago—and more than a quarter of high school seniors today take an AP course” (U.S. Department of Education, 2010, p. 3). Over 90% of the 4-year colleges and universities gave college credit or advanced placement for qualifying AP test scores (College Board, 2009).

The IB program has at least one program in all 50 states (International Baccalaureate Organization, 2008a). In the United States, 653 schools participated in the program, with 57,549 students involved in the program and taking 154,299 exams. From 2003 to 2008, the number of schools has multiplied by 50%, the number of candidates has increased by 74%, and the number of examinations taken has expanded by 70%.

### **State of Florida**

The state of Florida has students enrolled in all four of the acceleration mechanism programs with varying degrees of participation at the district level as well as student

level. The AP courses were “offered in 55 Florida school districts and through Florida virtual school” (OPPAGA, 2009b, p. 2). Based on 2007-2008 data, the AP program had 129,779 Florida high school students participating in the program, which was the largest high school enrollment of the four acceleration mechanisms. In regard to dual enrollment, all of Florida’s 67 school districts had a partnership with colleges and universities to offer the dual enrollment program.

Over 35,323 Florida high school students enrolled in the dual enrollment program, with the majority of students taking classes with the community colleges during the 2007-2008 school year. The IB program has 27 school districts that had at least one IB program at the high school level. The enrollment of the IB program for the 2007-2008 fiscal year was 9,802 high school students. The AICE program was the smallest of the four acceleration mechanisms, with 14 school districts offering the program. In addition, AICE had 2,171 Florida high school students who took the program’s courses based on 2007-2008 data.

In recent years, changes in policy that were directly related to acceleration mechanisms have been made in the state of Florida. The first change happened in 2007 when the statement of standards was drafted and adopted by the Council of Presidents and then endorsed by the Articulation Coordinating Committee (Florida Department of Education, 2007d). The statement of standards was derived from the standards of the National Alliance of Concurrent Enrollment Partnerships and was created to promote consistency among the dual enrollment programs at the Florida community colleges (Florida Department of Education, 2007d; National Alliance of Concurrent Enrollment Partnerships, 2013a).

These standards were adopted as a state board of education rule addressing college credit dual enrollment and became effective in June 2010 (National Alliance of Concurrent Enrollment Partnerships, 2013a). Due to 2008 legislation, AP, IB, and AICE performance funding was reduced, and dual enrollment courses that met core requirements of the state university system were to be weighted the same as AP, IB, and AICE (Florida Department of Education, 2008). The next change dealt with the Florida's school improvement accountability system, which was the state's school grading formula (Florida Association of Community Colleges, 2009). The Florida legislature modified the state's school grading formula to include other factors besides the Florida Comprehensive Assessment Test, which accounted for 50% of the high school grade. One of these factors included performance in acceleration mechanisms (i.e., AP, IB, AICE, and dual enrollment).

The performance in acceleration mechanisms was composed of two parts: students' participation and students' success in acceleration mechanisms. The Florida legislature defined success in acceleration mechanisms as when students earn college credit. Another change occurred in April 2010 when Governor Charlie Crist signed SB 4 into law (College Board, 2010b). This bill went into effect on July 1, 2010, and required all public high schools to offer four courses in IB, AICE, AP, and dual enrollment or a combination of these acceleration mechanisms in the areas of English, mathematics, science, and social science.

### **Summary**

Acceleration mechanisms have been increasingly used as a way to promote rigor and relevance at the high school level. The state of Florida has promoted AP, IB, AICE, and dual enrollment to high school students. Yet, a lack of penetration of all of the

acceleration mechanisms has existed, and the cost of these programs has been relatively expensive. Although the student participation rate of AP has increased and IB has remained stable, dual enrollment's student participation rate has decreased. Given the number of acceleration mechanisms, the current competitive environment, and the decrease in students' participation in dual enrollment, the value of dual enrollment needed to be questioned.

The topic of acceleration mechanisms has been popular with proponents and opponents voicing their opinions about the specific programs. As a whole, acceleration mechanisms' mission and educational objectives have shifted over the years in response to the demands, needs, and wants of the individual acceleration mechanisms' stakeholders. The popularity of the topic of acceleration mechanisms, the changing nature of acceleration mechanisms, and the competitive environment has brought up the need to question the viability of dual enrollment in the marketplace. The SWOT analysis and Porter's five-forces model have been utilized as strategic planning tools. Both frameworks have been employed in conducting environmental scans of an industry. In addition, Porter's five-forces model has been applied in the evaluation of programs. These frameworks were used in determining the value of dual enrollment and its competitive positioning in the acceleration mechanism industry.

The researcher has worked in dual enrollment for 8 years, so she is familiar with a dual enrollment program as well as the other acceleration mechanisms being studied. As a result of the researcher's professional experience, the researcher has a special interest in dual enrollment. The researcher has an understanding of the complexities that exist with acceleration mechanisms. In addition, the researcher has access to contacts throughout the state of Florida who have experience with acceleration mechanisms from a policy

standpoint, secondary viewpoint, and higher education perspective. The researcher has access to three public school districts' high school and district-level personnel members who have expertise or working knowledge with acceleration mechanisms.

### **Research Questions**

These research questions helped to determine if dual enrollment was still a sustainable acceleration mechanism given the competitive nature of the industry. The study's theoretical framework (i.e., Porter's model and SWOT analysis) served as the basis for the formation of the research questions. The central question for the study was as follows: How viable is dual enrollment as a product versus other acceleration mechanisms for Florida high school students, the colleges that participate in the program, and the state of Florida? The following eight issue subquestions guided this study in answering the central question of dual enrollment's viability:

1. What are the stated educational objectives of acceleration mechanisms?
2. How are acceleration mechanisms positioned in the market?
3. What are the benefits of acceleration mechanisms to colleges and universities?
4. What are the benefits of acceleration mechanisms to high school students?
5. What are the benefits of acceleration mechanisms to the state of Florida?
6. What factors influence the selection process and program success of acceleration mechanisms?
7. How does dual enrollment compare to the other acceleration mechanisms?
8. What recommendations can be made to improve the competitive positioning of dual enrollment programs in Florida?

## **Chapter 3: Methodology**

### **Aim of the Study**

The aim of this study was to determine the value of dual enrollment in comparison to the other acceleration mechanisms. The state of Florida offered high school students various acceleration mechanisms from which to select. Due to competition among the acceleration mechanisms and funding issues, dual enrollment's viability and positioning were examined. The end product was an indepth analysis of acceleration mechanisms with recommendations to be made for dual enrollment.

### **Participants**

In terms of participants, the researcher interviewed populations that had direct or indirect relationships with the dual enrollment program and the other acceleration mechanisms to study the value of dual enrollment at colleges and universities in Florida, especially in the northeastern part of the state. The study's participants came from one of five categories, and each participant had at least a few years of experience with at least one of the acceleration mechanisms. The first sample population consisted of vendors who represented all of the acceleration mechanisms, except dual enrollment because it did not have a centralized organization for its marketing functions.

Another sample population was participants who had knowledge about acceleration mechanisms from the state policy level. The next group was district personnel from three public school districts in the state of Florida. The fourth group was composed of school representatives from the public high schools who worked with acceleration mechanisms either directly or indirectly. The final group was college representatives who were selected from higher education institutions in Florida, which represented community and state colleges, state universities, and private universities.

The participants of the study were selected by applying a few sampling strategies. One strategy that was employed was the convenience strategy (Creswell, 2007). Although the convenience strategy was utilized to a certain degree, the criterion-sampling strategy was employed to ensure that participants had an in-depth experience with acceleration mechanisms. Participants needed to have at a few years of experience with an acceleration mechanism if not more because these people were expected to have enough knowledge to be deemed as experts. Preferably, participants had a thorough knowledge of more than one acceleration mechanism in order for the researcher to attain information to be used to compare acceleration mechanisms (Merriam, 2009).

Another purposeful sampling strategy, snowballing or chain, was utilized when interviewing college personnel and people who had a state viewpoint (Creswell, 2007; Merriam, 2009). The snowballing or chain purposeful strategy was used until a point of redundancy in information was reached. Although the researcher utilized the snowballing or chain purposeful strategy, the researcher interviewed 38 participants: vendors ( $n = 1$ ), state education officials ( $n = 3$ ), district personnel ( $n = 3$ ), school representatives ( $n = 13$ ), and college representatives ( $n = 18$ ).

### **Strategy of Inquiry**

The strategy of inquiry selected for this research study was the case study, and the section provides background information about case study, the intended outcome of the strategy, the appropriate usage for this research, and the characteristics that influenced the design of the study. The history of case study was extensive and crossed various disciplines. Case study's modern-day origins were traced back to the 1920s in the social science area of anthropology and sociology (Creswell, 2007). The discipline backgrounds

of the case study were psychology, law, political science, and medicine. Yet, case study was also a popular method in the field of education.

Defining case study and the specific type of case study assisted in illustrating the appropriateness of using this method for this research. The main characteristics of the case study are the bounded system, particularistic, descriptive, heuristic, and multiple sources of information (Creswell, 2007; Merriam, 2009). The bounded system in a case study meant that the case was limited to an event, phenomenon, or problem that was being studied. In this case study, the bounded system to be studied involved acceleration mechanisms in the state of Florida. The next characteristic of case study was particularistic and was closely related to the bounded system because it refers to the subject matter that was being examined in the research. Descriptive denotes the end product or intended outcome of the case study.

In regard to this particular case, an indepth explanation of acceleration mechanisms in Florida was the intended outcome of the case study. An additional characteristic of the case study was heuristic, which indicated the clarification or enlightened discovery of meaning of the subject matter. The characteristic of heuristic allowed the researcher flexibility in exploring acceleration mechanisms in order to obtain an extensive perspective of the subject matter. The final characteristic of the case study involved the multiple sources of information utilized in the research study. In summary, the “qualitative case study is valued for its ability to capture complex action, perception, and interpretation” (Merriam, 2009, p. 44).

This case study’s research design was shaped by the multicase study or cross-case design, which is distinguished by having a central focus or commonality (Merriam, 2009). This study warranted a multicase study design because each acceleration

mechanism shared the same goals. In addition, each acceleration mechanism was treated as a single case by using replication logic that helped validity the study externally (Yin, 2009). This study involved cross-case analysis because the mechanisms were compared to dual enrollment in order for a recommendation to be made on dual enrollment's viability (Creswell, 2007; Yin, 2009).

### **Data Collection**

This section details the setting of the research study and outlines the types of data collection. The setting set the stage for the research study. Then, the types of data collection were explained as well as their strengths and weaknesses.

**School districts.** The setting for this research study was based in northeastern Florida, with the concentration being on three public school districts that were referred to as School District A, School District B, and School District C. These school districts varied in population, median household income, per capita income, racial ethnicity, and educational attainment. These differences were highlighted because of the effect that they had on the research study.

The first factor discussed was the population of the school districts. In 2011, School District A had the smallest of the three school districts, with an overall population of 75,059. School District B had over 2.5 times the population of School District A, and School District C had approximately 3.25 times the population of School District A. School District B had an overall population of 197,130, and School District C had a population of 250,486.

In terms of income, this section addresses the annual median household income based on 2010 data. School District C had a median household income of \$40,656, and School District B had a median household income of \$57,913. School District A had a

median household income of \$33,300. Two of the school districts had a lower median annual household income than the state's annual household income, which was \$44,390.

The racial or ethnicity compositions of the school districts were compared to the racial or ethnicity compositions of the state using 2011 data. All three school districts had higher percentages of White populations than the state's percentages, with the minimum percentage points being 5.80% higher than the state and the maximum percentage difference being 18.97% higher than that of the state. In terms of the Black population, School District A had less than one percentage point higher than the state's Black population percentage. School District B had a lower Black population than the state's percentage by a little over 5%. Yet, School District C's population had almost five percentage points higher than the state's Black population percentage.

In terms of the Asian population, the state's population percentage was 2.44%, and School District B's Asian population percentage was 2.95%. School District C's Asian population was almost three percentage points higher than the state's average. However, School District A's Asian population was significantly lower than the state's Asian population. The last race or ethnicity to be compared was the White Hispanic, which had a state's population percentage of 20.33. All three public school districts were over 12% lower than the state's average.

Concerning educational attainment, the school districts varied in the results depending on the level of education being examined when utilizing 2011 data. School District A had a higher percentage than the other two school districts and the state in the category of less than a ninth-grade education. The next category, the high school diploma, had School District A having a higher percentage of attainment than the state. School

District C had a high school diploma attainment percentage of over 8% less than the state's educational attainment. School District B's high school diploma rate was barely below the state's educational attainment in this category.

In the category of associate degree, School District A had a lower level of achievement than the state and the other school districts. School District B had over two percentage points higher than the state's percentage in the category of the associate's degree, and School District C had barely one percentage point higher than the state's percentage population. The last category was the attainment of the bachelor's degree. School District A had almost 9% of attainment, and the state's percentage was 16.43%. The other school district below the state's percentage was School District B, whose percentage was 1% lower than that of the state. School District C had a little over three percentage points higher rate than the state.

**Types of data collection.** The types of data collection for this study were outlined as well as their individual strengths and weaknesses. In this study, the researcher employed the data-collection methods of interviews and documents (see Appendix B). The interviews were semistructured, and the participants had a fairly extensive knowledge of acceleration mechanisms. The strengths of the interview process were that the method provides an insightful perspective, and the interviews were focused on the subject matter (Yin, 2009). Yet, weaknesses of interviews consisted of inaccuracies in the process, biases related to the questions posed or responses given, and preferred answers given to the interviewer. In regard to documents, the strengths for this type were the consistency and reliability it offered as well as the specificity and breadth about the subject matter. The weaknesses of documents were that biases can exist in terms of selectivity and reporting as well as issues with access and irretrievability.

## **Instruments**

The study's theoretical framework served as a basis in selecting the instruments to be developed and used. Pertaining to this research study, the instruments designed to address the research questions were developed with the aid of formative and summative panels (see Appendix C). These data-gathering tools included (a) a one-on-one interview guide (see Appendix D), (b) a SWOT analysis evaluation form (see Appendix E), and (c) a Porter's model analysis form (see Appendix F). Each instrument was used either to help establish validity and reliability in the study or to answer the research questions in order to determine the value of dual enrollment (Gall, Gall, & Borg, 2007).

The formative and summative panels were established to identify criteria for evaluating perceptions and determining the value of dual enrollment as well as to provide appropriateness, reliability, and validity to the established criteria. The formative panel consisted of one marketing expert, one acceleration-mechanism expert, and one contact with interviewing experience. The summative panel consisted of two marketing experts and two acceleration-mechanism experts. Summative panel members were used to validate the questions for the one-on-one interview guide and the definitions for SWOT analysis evaluation form and Porter's model form. With the assistance of the formative and summative panels, the researcher was able to develop research questions for the one-on-one interview guide for each group in order to establish reliability and validity for this portion of the study.

The one-on-one interviews were organized to follow a semistructured interview model. The rationale for using a semistructured interview model was the desire to obtain in-depth knowledge of key stakeholders' perceptions about dual enrollment and the other acceleration mechanisms. The next research instrument used was the SWOT analysis

evaluation form. The final instrument utilized for the study was the Porter's model analysis form.

### **Research Procedures**

The researcher obtained data from various sources ranging from articles to interviews to serve as the basis for both the SWOT analysis and Porter's model to make a recommendation for the dual enrollment program. These procedures were utilized to gain "an indepth understanding of the case by collecting multiple forms of data" (Creswell, 2008, p. 477). The researcher pilot tested the research questions with three individuals who had familiarity with acceleration mechanisms. The purpose of pilot testing the interview process was so the researcher gained experience in interviewing and refined the process (Seidman, 1998). In addition, the researcher used pilot-testing research questions as a chance to role play with participants in order to get an accurate idea of timing for an interview (Kvale, 1996).

**Procedure 1.** The researcher contacted and requested marketing materials from the central U.S. office or appropriate representative of AP, IB, AICE, and CLEP. Dual enrollment does not have a national office or state offices, so the researcher requested dual enrollment marketing materials from the neighboring community or state colleges. In addition, the researcher requested information from each of the high schools in the three public school districts about the acceleration mechanisms in order to see how the high schools' personnel marketed AP, IB, AICE, and dual enrollment.

The researcher compared the marketing materials from the central offices of AP, IB, AICE and CLEP to the high schools' marketing materials of these acceleration mechanisms to determine if any differences existed. In addition, the researcher studied the dual enrollment marketing material from community and state colleges and the state

material about dual enrollment to discover if any differences existed. The researcher discussed the findings in terms of what the educational objectives were for each of the acceleration mechanism and how each acceleration mechanism was marketed. This procedure addressed Research Questions 1 and 2 regarding educational objectives and market positioning.

**Procedure 2.** In this procedure, the researcher developed a letter explaining the purpose of the study, as well as requesting participation in the study from vendors of acceleration mechanisms, state officials, district personnel, high school representatives, and college representatives. The researcher sent the letter in the mail or through e-mail to the vendors of acceleration mechanisms, state officials, district personnel, high school representatives, and college representatives. The vendors consisted of all of the acceleration mechanisms except for dual enrollment. The state officials were from the Florida Department of Education and had knowledge of acceleration mechanisms. The district personnel represented three public school districts that were being studied. In addition, the high school representatives were from the participating three public school districts. The college representatives were from nearby community colleges, state colleges, state universities, and private universities. This procedure addressed Research Questions 1, 3, 4, 5, and 6.

**Procedure 3.** The researcher interviewed the participants who agreed to contribute to the study. The participants were representatives of the vendor group, state officials, public school district personnel, high school representatives, state university representatives, private university representatives, and community college or state college representatives. Before the scheduled one-on-one interview, the researcher e-mailed the

participants the questions that were asked in the interview. The questions were open ended, and participants were encouraged to share their experiences and perspective about AP, IB, AICE, dual enrollment, and CLEP.

The 60-minute interviews were conducted either in person or by telephone. The researcher transcribed and proofread the notes from the interviews that had been conducted by phone or in person. After the interview notes were transcribed, the researcher e-mailed each interviewee the notes from his or her interview as a courtesy and to give the participants a chance to clarify, modify, or edit any of their responses. This step was taken to ensure accuracy of the interviewees' comments because the researcher did not record the interviews. If interviewees decided to answer the questions by e-mail, the researcher followed up with an e-mail message to the interviewees asking them to clarify their responses.

The researcher had the option to follow-up with participants after the interview at a later time. Any comments shown in quotation marks were statements made by the interviewees who had an opportunity to review their interview notes, as well as the chance to modify their comments. In addition, other comments were made based on the interviewees' observations. Interviewees were arbitrarily assigned numbers in order to protect their identities and provide clarity when referencing their comments. This procedure addressed Research Questions 1, 3, 4, 5, and 6.

**Procedure 4.** The researcher utilized information collected from vendors' marketing materials, community and state colleges' dual enrollment programs, and the interviews to perform a SWOT analysis and a Porter model analysis. The researcher placed the information obtained in the SWOT analysis and Porter's model frameworks, or templates, as well as discussed the findings. If the information obtained could be used in

a perceptual map, the researcher elected to develop a perceptual map. This procedure addressed Research Question 7.

**Procedure 5.** The researcher examined the policies of other states about AP, dual enrollment, IB, AICE, and CLEP by studying national reports covering the subject area to make comparisons between the state's policies and those of other states and determine if recommendations could be made from this analysis. In addition, the researcher examined all of the information from the marketing materials obtained from the vendors, community and state colleges, interviews, SWOT analyses, and Porter's model to make overall recommendations to improve the competitive positioning of dual enrollment programs in Florida. This procedure addressed Research Question 8.

### **Data Analysis**

In order to produce a quality analysis of acceleration mechanisms, the researcher followed four principles recommended by Yin (2009). The first principle was that the researcher investigated and sought the answers to the research questions in a comprehensive manner. The second principle explored any contradictory or challenging theories or findings that differed from the researcher's findings. The third principle concentrated on the major issues in the case study and avoided detractions by minor questions or matters. The fourth principle was for the researcher to use her knowledge of the subject matter to report recent events, findings, challenges, and so forth.

In terms of case-study analysis, two phases existed. The first phase was referred to as within-case analysis (Merriam, 2009). This analysis phase meant that the researcher treated each acceleration mechanism as its own case. This examination was comprehensive so the researcher had an indepth understanding of each acceleration

mechanism. The second part of the case-study analysis was the cross-case analysis, which entailed that generalizations across the acceleration mechanisms were constructed.

Merriam (2009) stated, “The level of analysis can result in a unified description across cases; it can lead to categories, themes, or typologies that conceptualize the data from all the cases” (p. 204).

**Audit trail.** The researcher increased reliability of the study by constructing an audit trail, which “describes in detail how data were collected, how categories were derived, and how decisions were made throughout the inquiry” (Merriam, 2009, p. 223). Part of the purpose of an audit trail was to assist others in retracing the steps of the researcher and how the researcher reached the conclusions (Savenye & Robinson, 2005). The audit trail consisted of the raw data, written notes, field notes, memos, development of categories, findings, process notes, and interpretations (Leech & Onwuegbuzie, 2007, 2008). The researcher kept a running log of the details of conducting the study, as well as the thoughts and reflections of the researcher (Merriam, 2009). The end result was that an observer could understand how the researcher derived at the conclusions made and reported in the findings section.

**Memos.** The researcher wrote memos throughout the research process, especially during the analysis stage. These memos contained the researcher’s thoughts, questions, reflections, and ideas about the study’s main issues as well as the conclusions derived from this analysis (Merriam, 2009). The researcher included these memos as part of the study’s audit trail.

**Field notes.** The researcher wrote field notes after each interview in order to capture the researcher’s perceptions and thoughts about the participants’ comments

(Johnson & Napper-Owen, 2011). These field notes were expressively descriptive and detailed enough for an observer to get an impression of the interviewees' thoughts and perceptions (Merriam, 2009). The field notes were included in the audit trail.

**Member checking.** The researcher used member checking, also known as descriptive triangulation, in order to ensure that the researcher's interpretation was correct (Leech & Onwuegbuzie, 2007). Stake (2010) stated, "Member checking is presenting a recording or draft copy of an observation or interview to the persons providing the information and asking for correction and comment" (p. 126). In addition, member checking, also known as respondent validation or informant feedback, was a major tool in establishing a study's credibility (Merriam, 2009; Onwuegbuzie & Leech, 2007). By member checking, the researcher safeguarded against bias and misinterpretation by asking the interviewee to verify or clarify the researcher's interpretations of the interviewee's comments.

In this study, the researcher conducted a member check on all interviews as quickly as possible after the interview (Stake, 2010). The emphasis in conducting the member check was on the critical parts of the data. In addition, the researcher kept a record of the results of the member in a form of a table to illustrate if any action had to be made based on the member check (Merriam, 2009). By retaining a record of the membercheck results, the researcher identified if a pattern of bias and misinterpretation existed. In addition, the researcher evaluated the member-check results to see if a pattern or patterns existed on member checking.

**Data managing.** The main method of managing data was to create a case-study database, which brought all of the case's information together in one place from field

notes to interview notes to memos to documents (Merriam, 2009). One purpose of the case-study database was to provide a formal database so an independent researcher could examine the evidence of the study. As a result, the study's reliability was increased due to the transparency of the case-study database (Yin, 2009). The main component of the database was the researcher's notes that consisted of interview notes and document notes. These notes were organized by subject matter and were made as complete as practical. In addition, key phrases and themes from the memos of the researcher were used in building the database (Creswell, 2007). The case-study database was categorized and organized in a manner that the information was easily retrievable for analysis purposes.

**Data coding.** The analysis process started with determining what a unit was from the material that the researcher was analyzing (Merriam, 2009). For this study, the researcher employed Lincoln and Guba's (1985) criteria for defining a unit or category. The first principle was that the unit should be heuristic in that the code was relevant to the study and made the researcher ponder deeper lines of questioning about the subject matter. The second principle was that the unit could stand by itself without explanation if a person was familiar with the subject matter. This process was the beginning of coding. In the beginning of the coding process, the categories needed to be treated as brainstorming, and then later the categories were narrowed down as much as possible when the themes began to emerge. This method of coding that the researcher applied in the study was referred to as open coding. After assigning codes, the researcher grouped similar codes to assemble categories or themes, which denoted axial or analytical coding. Subsequently, the researcher kept a list of all the codes and categories to ascertain themes of the research.

**Categories.** The researcher adhered to prescribed standards to the formation of categories or themes in the research. The first standard in categories was that the categories related to the purpose of the research (Merriam, 2009). Second, the researcher employed the standard of the categories being exhaustive in the fact that all pertinent data from the research were categorized. The next principle was that the data were suitable to only one category, and, if the data were suitable to multiple categories, then the researcher examined the categories until the data appropriately fit into one category. The fourth standard was the sensitizing of data, which meant that the naming of categories was as true and specific as possible to the data being described. The final standard of categories was that “the same level of abstraction should characterize all categories at the same level” (Merriam, 2009, p. 186).

**Triangulation.** In this study, the researcher followed established rules of triangulation and discussed the three methods of triangulation applied in this study: data triangulation, theory triangulation, and methodological triangulation. The purpose of triangulation was to provide corroboration by employing different sources, methods, theories, and perspectives to alleviate bias and chance associations (Onwuegbuzie & Leech, 2007). In terms of the triangulation rules, the researcher adhered to four rules (Stake, 2010). The first rule involved determining if the data needed to be triangulated or if the data were too trivial and not related to the research questions. The second rule addressed the fact that, when the data or description had some relevance but could be disputed, the information required a minor level of triangulation. The third rule focused on when the evidence was a foremost assertion of research, which necessitated a major need of triangulation. The final rule concentrated on the fact that a person’s interpretation did not require triangulation because the statements were a personal opinion.

In regard to data triangulation, the researcher utilized different sources in the study as a means to provide indepth presentation of the various views of acceleration mechanisms (Leech & Onwuegbuzie, 2007; Merriam, 2009; Onwuegbuzie & Leech, 2007). In this study, the researcher interviewed participants representing the acceleration mechanisms, state education, colleges and universities, school district personnel, and high schools. As a result, these participants were able to depict different perspectives of acceleration mechanisms. Another area that provided different sources was in the area of documents because various sources of documents employed.

The next method of triangulation to be discussed was theory triangulation, which means the “use of multiple perspectives to interpret the results of a study” (Onwuegbuzie & Leech, 2007, p. 240). The Porter’s model analysis and the SWOT analysis were the primary basis of the theoretical framework for this study, and Porter’s (1996) value-chain analysis was supplementary. By applying this framework, the study had various perspectives represented in the analysis.

According to Onwuegbuzie and Leech (2007), the final type of triangulation was methodological triangulation that necessitated the application of multiple uses of sources (see Appendix G). Primarily, interviews were the main type of data collection. In addition, documents from various sources were utilized in the study. By applying different types of sources, the researcher was able to report from different perspectives, which enhanced the credibility of the study.

## **Chapter 4: Results**

### **Introduction**

Chapter 4 details (a) the findings of one-on-one interviews with key participants and (b) document analysis of marketing materials and other secondary sources or

published documents of this multicase, qualitative study to discover if dual enrollment was viable when compared to other acceleration mechanisms (i.e., AP, IB, and AICE). The interviews and document analysis were categorized by type of acceleration mechanism to discern themes about dual enrollment's positioning. This chapter includes the research questions, participants' demographic information, findings to research questions, and summary of the discovery of dual enrollment's viability. Eight research subquestions guided this applied dissertation to answer the central question: How viable is dual enrollment as a product versus other acceleration mechanisms for Florida high school students, the colleges that participate in the program, and the state of Florida? The subquestions were as follows:

1. What are the stated educational objectives of acceleration mechanisms?
2. How are acceleration mechanisms positioned in the market?
3. What are the benefits of acceleration mechanisms to colleges and universities?
4. What are the benefits of acceleration mechanisms to high school students?
5. What are the benefits of acceleration mechanisms to the state of Florida?
6. What factors influence the selection process and program success of acceleration mechanisms?
7. How does dual enrollment compare to the other acceleration mechanisms?
8. What recommendations can be made to improve the competitive positioning of dual enrollment programs in Florida?

The researcher interviewed people in Florida who had a minimum of 3 years of experience with acceleration mechanisms. The participants came from the following groups: (a) vendors of acceleration mechanisms, (b) state education officials, (c) district personnel from the three participating school districts, (d) high school personnel, and (e) higher education representatives from independent colleges and universities of Florida (ICUF), representatives of the state university system of Florida (SUSF), and state college representatives. To increase the study's validity and reliability, the researcher included the interviewees' notes (see Appendix H). In addition, the researcher utilized literature pertaining to acceleration mechanisms.

### **Participant Demographic Information**

The researcher e-mailed a letter requesting participation in the study to participants in the five groups. Concerning the vendor group, the researcher contacted the U.S. representatives for the organization as well as the researcher's contact. Only one representative from the vendor group elected to participate. The researcher communicated with state education officials who had experience with acceleration mechanisms. Three participants with state education affiliation consented to be interviewed. In regard to district personnel, the researcher contacted an individual who had a minimum of 3 years of experience from each of the three schools districts targeted. All of these individuals participated in the study.

Pertaining to high school representatives, the researcher asked high school personnel who met the requirements in School District A to be interviewed in the study. Two people from School District A were interviewed about their experiences. Both of these people represented the same high school, but School District A had only three high schools. The researcher e-mailed a letter to the appropriate personnel from six of the

seven high schools in School District B. Eight people from School District B participated in the study. In terms of School District C, the researcher worked with school district personnel to identify appropriate personnel to interview for the study. The result was three people who represented two of the six high schools in School District C.

The final group being interviewed were individuals who worked in higher education: SUSF representatives, ICUF representatives, and state college representatives. The researcher interviewed 10 higher education personnel who represented seven of the 11 SUSF institutions. From the ICUF sector, two people participated in the study from two of the 31 ICUF schools. Finally, the researcher interviewed six people from six of the 28 state colleges.

### **Results for Research Question 1**

What are the stated educational objectives of acceleration mechanisms? The intent of the question was to analyze the mission of the acceleration mechanisms in order to discover the purpose of each acceleration mechanism. To answer the research question, the researcher relied on the marketing materials provided for each acceleration mechanism, as well as published organizational documents that were retrieved from the websites of the acceleration mechanisms. In addition, the researcher conducted research searches to obtain academic research articles that addressed the educational objectives of acceleration mechanisms. One vendor of acceleration mechanisms consented to participate in the research study.

**Advanced placement.** In regard to AP, one vendor commented, “AP was established in 1955, pioneered by three prep schools and three universities for the purpose of allowing high school seniors the opportunity to demonstrate college level learning and earn college credit.” The program’s educational objectives have progressed to include

promoting opportunity for underserved students to have access to the AP course work in order to encourage college readiness. The AP is one of the programs of the College Board, which compartmentalizes its work into three areas: college readiness, college connection and success, and advocacy (College Board, 2013d).

College readiness is the category that AP falls into within the College Board because the intent of AP is providing rigorous course work that is comparable to introductory courses at colleges and universities. The central tenet of AP is to deliver an academically challenging course work that will prepare students for higher education. Besides college preparation of students as a main objective of AP, the program also awards college credit that would go toward earning a college degree (Barnard-Brak, McGaha-Garnett, & Burley, 2011). Originally, AP emerged as a means to keep high school students, who already consumed all of their high school course offerings, engaged in learning while having a possibility of earning college credit before their high school graduations (Klopfenstein & Lively, 2012).

**International baccalaureate.** On the IB website, the first part of the mission statement is as follows: “The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect” (International Baccalaureate Organization, 2013b, para. 4). The main thrust of the IB program has been to develop students into global citizens who have an intercultural understanding (Bunnell, 2008). The IB program responded to the global economy by placing focus on students fostering their own perspectives of international mindedness, while educating the whole student (Resnik, 2012).

In developing international mindedness and educating the whole student, IB

fleshed out a central tenet of its values and vision for the 21st century by producing the IB learner profile that detailed the 10 domain learning outcomes (Cambridge, 2010; International Baccalaureate Organization, 2008b). The IB learner profile has served as a guidepost to all educators associated with the organization in their daily interactions in representing the organization. The driving force of the IB learner profile is to have a guide that illustrates the skills of the international mindedness student to aid the student in becoming a global worker and a global citizen.

**Advanced international certificate of education.** Cambridge International Examinations is part of the Cambridge Assessment Group, which is a nonprofit organization and part of the University of Cambridge (Cambridge International Examinations, 2013a, 2013b). Because AICE does not have its own mission and is a program of the Cambridge International Examinations, then the mission of Cambridge International Examinations is the one presented in this discussion. Its mission focuses on providing a quality international education through the areas of curricula, assessment, and services to students worldwide.

In addition, the Cambridge International Examinations group is dedicated to supplying superior education across the global to students, as well as buttressing financial support to those countries that it works with on a national level. The core belief of Cambridge International Examinations focuses on excellence through the measure of cultivating successful students. This means that Cambridge develops successful students by emphasizing learning through an inquiry-based and learner-centered approach, which in turn promotes critical thinking and problem solving (Shaw & Bailey, 2011).

**Dual enrollment.** Because dual enrollment lacks a national governing body that accounts for the quality of the program on the college campuses and high school sites,

dual enrollment does not have a formal mission statement. As a result, the mission or goals stated for dual enrollment were derived from the Florida state statutes. The Florida Department of Education (2011) stated the following as goals for articulated acceleration, which also includes dual enrollment:

It is intended that articulated acceleration serve to shorten the time necessary for a student to complete the requirements associated with the conference of a high school diploma and a postsecondary degree, broaden the scope of curricular options available to students, or increase the depth of study for a particular subject. (p. 1)

Lewis (2009) and Robinson (2011) both cited the above-mentioned goals for articulated acceleration as the goals or aims of the dual enrollment program. An additional driving principle of dual enrollment was to ease student transition from high school to college, while getting students started early on their college education (Klopfenstein & Lively, 2012; Ulate, 2011).

## **Results for Research Question 2**

How are acceleration mechanisms positioned in the market? The reason for the second question was to help determine the viability of dual enrollment. To answer Research Question 2, the researcher applied interviewees' comments and research articles to ascertain the positioning of each acceleration mechanisms. In addition, the researcher provided interviewees' comments about their perceptions of the positioning of acceleration mechanisms.

**Advanced placement.** The positioning of AP centers on its long-standing reputation, as well as its market share of high school student participation. The AP program is the nation's most widespread acceleration mechanism and oldest acceleration mechanism in the United States, with an existence of over 50 years (Shaw, 2011;

Wakelyn, 2009). Without a nationalized high school curriculum in the United States, AP occupies that gap and has served as a means for comparison of students across the nation in terms of rigor and college preparation (O'Brien & Dervarics, 2012).

In fact, SUSF Representative 4 commented, "AP has been around forever and so entrenched," and SUSF Representative 2 stated, "AP has the largest number of students." In terms of the high school perspective, High School Representative 4 declared, "AP is very accessible." High School Representative 12 remarked, "AP is more established, and colleges recognized it. AP is entrenched and here to stay." The AP program has a presence in the majority of the nation's high schools, with a third of these high schools permitting students who have any interest in AP being allowed to participate in the program (King, 2010). In terms of Florida, State Education Official 2 affirmed, "AP is the largest acceleration mechanism in the state."

The AP program has been a means of bringing equitability to education and fortifying the alignment of curriculum from middle school to college (Kutchner, 2012; Lipp, 2011). Furthermore, AP emphasizes promoting access to underserved students and students from low-income families (Kutchner, 2012), and this increased exposure to these students can improve their ability to attend college. Government agencies have supported AP's efforts in targeting minority students and students from low-income families by funding millions of dollars to the organization and its program. The majority of the nation's budget for AP is received from state financing that offsets testing fees paid by individual students.

These government and education entities have championed AP as an instrument in advocating educational equity and social mobility. As a result, AP has been a strong influence on many educational policies (Klopfenstein & Lively, 2012). However, many

critics of AP's open-access policies object to this egalitarian approach. One interviewee, ICUF Representative 1, indicated, "IB and AP will be continued to be watered down because high schools are pushing students into these two programs." Another higher education interviewee, State College Representative 1, stated, "High school administrators are overloading AP for the numbers rather than looking at the academic level of students."

From a reputation perspective, the College Board and other researchers who have studied AP have found it to be an excellent primer for students in their transition from high school to college (King, 2010). Moreover, students do benefit from just having AP courses on their academic record when applying to selective colleges (Klopfenstein & Lively, 2012). High School Representative 1 declared, "Students choose AP because of prestige, and it is a heavily researched program." Even gifted high school students felt that, to be considered conscientious college-bound students, they had to take multiple AP courses concurrently (Milburn, 2011).

High School Representative 1 continued by stating, "Students and universities know what is going on in these programs." Universities not only use AP as a standard for college admissions, but also as a measure for determining scholarship recipients (Buice, 2012). High School Representative 10 commented, "As a whole, AP is rigorous, and it is only for the top 20% of the student body." High School Representatives 3 and 7 both recommended that, if a student wants to attend a college or university out of state, these competitive schools typically prefer AP course completion from applicants. As a result, AP has developed an entrenched position as the market share leader in the accelerationmechanism industry.

**International baccalaureate.** The positioning of IB is reflected in some of the descriptors of the program, such as being the “Cadillac of College Prep” (Culross & Tarver, 2011, p. 232) and the “Gold Standard” (Resnik, 2012, p. 252). The IB program has been transformed into a globally branded product that signals internationalism and multiculturalism. The development of the IB learner profile marked the transition of IB as an organization into a global brand (Bunnell, 2011a). Additionally, IB has been recognized by universities worldwide as a credential in the vein of a rigorous college preparation modeled after the classic liberal arts curriculum (Shaunessy & Suldo, 2010; Wells, 2011). To add to IB’s clout, after researching the program, the U.S. National Association for Gifted Children endorsed IB as a suitable option for gifted learners (Culross & Tarver, 2011).

Subsequently, the importance of high school rankings based on the rigorous academics offered has increased, and one of the measures of academic quality in high schools has been the IB program, which helped fortify IB’s positioning (Shaunessy & Suldo, 2010). The IB program has relied heavily on its brand, reputation, and image as well as its stakeholders’ word-of-mouth recommendations (Bunnell, 2011b). As a result, IB safeguards its reputation by providing protocols and provisions to its schools while offering adaptability to serve national needs of a country and its students that met IB’s approval (Resnik, 2012).

Higher education’s perspective of IB has been pertinent to the perception of IB by high school students as well as other educational groups. For example, students who desired admission into the nation’s most selective universities chose to participate in IB in order to be competitive in college admissions (Culross & Tarver, 2011). The top colleges and universities actively recruit IB students who earn the IB diploma. District

Official 2 reiterated the positioning of IB carrying considerable weight with colleges in terms of admissions. In addition, District Official 2 stated, “Every college knows IB, and its target students were considered to be highly motivated and focused students. Another statement from the district viewpoint came from District Official 3, who declared IB to be the most rigorous of the acceleration mechanisms.

This view of IB being the most esteemed of the acceleration mechanisms was shared by ICUF Representative 1, who commented that IB was viewed as a top program because, in all courses, students were handling rigor at the college level. The high school perspective imparted the same perspective as both the district personnel and higher education personnel. High School Representative 7 remarked, “Students were crosscurricular and highest in academics.” High School Representative 10 noted, “IB students were top-notch students, and High School Representative 11 declared, “IB was the most prestigious diploma to seek.” The prestige of the IB program enhanced its positioning in the acceleration-mechanism industry.

**Advanced international certificate of education.** The affiliation with Cambridge and the program curriculum affects AICE’s positioning in the accelerationmechanism industry, as well as its relatively newness. The Cambridge International Examinations group’s reputation as a global leader in curriculum development “reflects not only its ability to anticipate and respond to the diverse needs of education systems around the world, but also its capacity to influence the curricula of many countries” (Lim, 2011, p. 787). Shaw (2011), principal researcher for the Cambridge International Examinations group, gathered perceptions from AICE’s various stakeholders. One perception presented was that AICE was more adjustable when compared to AP and IB.

The AICE is viewed as being more stimulating than the other acceleration mechanisms because its structure promotes indepth knowledge of subject via teamwork and hands-on learning.

In addition, AICE highlighted future career direction for students and endorsed advanced study or courses that promoted a more versed choice of courses rendered by students. High School Representative 11 reinforced the idea of customized curriculum by AICE students by stating that, with AICE, “Students can tailor curriculum toward their college major.” Further, High School Representative 11 commented, “AICE is in between the acceleration mechanisms in terms of having more flexibility.” Another interviewee, High School Representative 2, stated, “AICE is just as competitive as IB, but the program is more flexible than IB in terms of students being able to select courses or a track. In AICE, students get to select electives.”

The awareness of AICE has been mixed because of its lack of familiarity and size as well as its infancy. For example, District Official 2 declared, “In regard to AICE, the program is gaining more momentum as colleges become much more aware of the program, which is relatively new because it is only 10 to 12 years old.” High School Representative 8 asserted, “The AICE program is more recognized outside the United States.” Furthermore, High School Representative 10 affirmed the position of AICE’s recognition by proclaiming, “AICE does not have the same recognition as IB and AP.” From higher education’s perspective, SUSF Representative 2 stated, “In terms of number of students, AICE has a smaller number and is growing,” and SUSF Representative 3 proclaimed, “AICE is not particularly significant due to the smaller number.” In addition, ICUF Representative 1 announced, “The stage of the AICE is at more of a wait-and-see

phase.” Then, ICUF Representative 1 stated, “Currently, the AICE program is the best one out there in terms of the acceleration mechanisms.”

When comparing AICE and IB, SUSF Representative 4 commented, “AICE and IB have similarities in terms of the level of rigor.” Then SUSF Representative 5 proclaimed, “AICE and IB magnet programs have a prescribed curriculum and students have a prescribed curriculum, and students take all advanced courses which may only be suitable for a student who is gifted in all subjects.” Interviewees expressed different opinions about the comparability about AICE and IB in terms of perception of the programs. For instance, High School Representative 10 stated, “AICE does not have the recognition as IB and AP. It is a comprehensive program, but it is not equal to IB.” On the other hand, High School Representative 11 pronounced, “AICE is equal to IB from a state perception.”

The AICE students participated in the program for various reasons, which strengthened the positioning of AICE. High School Representative 7 declared, “In terms of AICE, the student is a different kind of student,” and continued by stating, “These students could be intrinsic. In general, the AICE student is the highest academic student and not as well rounded.” Another high school interviewee, High School Representative 8, stated, “Students participate in AICE because it challenges them and is a way to stand out in college admissions. In addition, students want to excel in school and maximize their learning.” An additional high school interviewee, High School Representative 3, discussed AICE by declaring, “For students who want to challenge themselves, but socialization is important to them, the AICE program is a good option for these students. The AICE curriculum is based on the European perspective.” Because of the program’s newness and lack of research articles on AICE, as well as the lack of participation by

their vendor, interviewees' comments became a significant part in establishing the positioning of the AICE program.

**Dual enrollment.** The positioning of dual enrollment was answered by the utilization of academic articles and interviewees' comments. Students' characteristics and motivation, along with the criticism of dual enrollment, has been investigated in order to establish the positioning of dual enrollment.

In the area of students' characteristics and motivation, these students were varied in these areas for participating in dual enrollment. Robinson (2011) discovered in his research that marginalized students benefited from dual enrollment in terms of college readiness and persistence. Klopfenstein and Lively (2012) conducted research in Texas that compared AP students to dual enrollment students. They discovered that, markedly, dual enrollment students were from rural areas and low-income families and that the students qualified for either free or reduced lunch programs. Likewise, dual enrollment students were more apt to work while attending college. From an academic standpoint, dual enrollment students earned lower grades in high school and college, as well as lower scores on the Scholastic Achievement Test. Dual enrollment provides students from low-income families with access to a college, which can later embolden them to pursue a college degree (Speroni, 2011b).

Then SUSF Representative 3 declared, "Dual enrollment's niche is first-generation students," and SUSF Representative 9 commented, "Dual enrollment students generally are more lower to middle class, minority, and urban students." State College Representative 3 stated, "The profile of dual enrollment students is high-achieving high school students in 10th, 11th, and 12th grade." In terms of college selection, dual enrollment students entered into 2-year colleges over 4-year colleges (Speroni, 2011a).

Some dual enrollment students decided to participate in the program because they enrolled in all of the AP courses available to them at their high school. State College Representative 6 commented, “Students who became disenchanted with IB tended to apply for dual enrollment.” In addition, SUSF Representative 4 declared, “Dual enrollment goes across the board and can be appropriate if high school does not offer advanced courses.” From the high school perspective, High School Representative 11 avowed, “Dual enrollment is not the best option for top-notch students.”

Dual enrollment has critics who view the program negatively or with discernment. Numerous highly selective colleges and universities awarded lesser weight to dual enrollment than exam-based acceleration mechanisms (Hill, 2011). These colleges and universities regarded the quality of dual enrollment as being dependent on the teachers as well as the location of dual enrollment (Robinson, 2011). To support the notion of quality dependent upon the location of the dual enrollment program, State College Representative 6 remarked, “It has been my experience that universities are not happy when dual enrollment is offered on a high school site because, typically, a high school instructor teaches the college course.”

Then SUSF Representative 4 noted, “Dual enrollment is a mixed bag. Dual enrollment is growing like wildfire, and it is easy to get credit.” Furthermore, SUSF Representative 4 cited, “Some dual enrollment courses are just as good as other acceleration mechanisms, but the quality of the courses depends on faculty.” In addition, SUSF Representative 6 declared, “Dual enrollment is riskiest of the four options because, with the other acceleration mechanisms, students do not earn college grades,” and SUSF

Representative 9 affirmed, “Dual enrollment has more questions about it.” Finally, SUSF Representative 10 stated, “The question remains if dual enrollment better prepares them and remains questionable. Not all state college are comparable to universities.”

**Comparison of acceleration mechanisms.** The interviewees compared the acceleration mechanisms and placed them in a hierarchy. The ranking of acceleration mechanisms was based on the interviewees’ perceptions of a program’s level of rigor. In addition, several interviewees contrasted AICE and IB.

In regard to hierarchical order, District Official 3 stated, “In the town of the district, the perception of the acceleration mechanisms is as follows from most rigorouschallenging to least rigorous-challenging: IB, AICE, AP, and dual enrollment.”

The

SUSF Representative 9 declared, “A pecking order of acceleration mechanisms exists: IB, AP, AICE because not enough schools have the program, and dual enrollment—the stepchild or less loved.” Yet, SUSF Representative 10 lumped AP, IB, and AICE together. Furthermore, ICUF Representative 1 noted, “Students who participate in AP, IB, and AICE are doing more for educational purposes.” The ICUF Representative 2 remarked, “AP, IB, and AICE are probably stronger than dual enrollment.”

In addition, SUSF Representative 2 avowed, “AP, IB, and AICE are recognized all over the country, whereas dual enrollment might not be as easily transferable.”

District Official 2 pointed out, “AP, IB, and AICE have accountability because of their end-of-course exam and standards, and these programs can be compared nationally and even globally.” High School Representative 11 observed, “AICE, IB, and AP have more similarities than differences. Higher education values AP, IB, and AICE. Data are real

clear that IB, AICE, and AP students fare better in their first year of college than dual enrollment freshman.” High School Representative 2 declared the following:

Universities see a difference in the programs: IB, AICE, AP, and dual enrollment. Yet, they would not say publicly, but the flagships of the Florida State University System would rank the programs as follows: IB, AICE, AP, and dual enrollment.

Yet, High School Representative 10 stated, “AICE does not have the same recognition as IB and AP.” High School Representative 7 asserted, “In regard to IB and AICE, these programs attract higher levels of students than AP and dual enrollment due to nature of the program.” Furthermore, AICE and IB have commonalities that cause these two programs often to be grouped together (see Appendix I). Due to the lack of information about AICE, the researcher thought that listing the similarities in a table form would be beneficial to interested parties.

### **Results for Research Question 3**

What are the benefits of acceleration mechanisms to colleges and universities? To answer the question, the researcher relied on interviewees’ comments and document analysis of published sources that identified the gains of acceleration mechanisms for colleges. For this question, the interviewees’ comments were predominantly from the higher education sector. The rationale for this query was to unearth the strengths of acceleration mechanisms in order to furnish a comprehensive depiction.

Colleges and universities profited from acceleration mechanisms in a myriad of ways. One of the main benefits of acceleration mechanisms to colleges and universities was that students who participated in these programs were better prepared for the rigors of college. The sole voice from the secondary sector was from District Official 2, who commented, “Colleges want high school students to take college-ready courses, and these courses need to be complementary to ones offered on college campuses.” In addition,

ICUF Representative 1 stated, “Colleges and universities use acceleration mechanisms for students’ preparation for the next level of achievement.”

Furthermore, ICUF Representative 2 added another dimension by declaring, “Colleges and universities use acceleration mechanisms as an indicator of college preparedness and readiness to compete at the next level.” In fact, SUSF Representative 6 commented, “Participation in acceleration mechanisms is a lot more reliable in predicting college success than standardized test scores.” Furthermore, ICUF Representative 2 claimed, “In addition, colleges and universities use acceleration mechanisms for placement into the next class.” In another closely related comment, SUSF Representative 1 stated, “Colleges and universities utilize acceleration mechanisms to assess preparation because they tend to be measures of rigor in general of secondary preparation.”

Another benefit of acceleration mechanisms to colleges and universities is in the area of recruitment. In regard to dual enrollment, State Education Official 1 affirmed, “Dual enrollment benefits the college because it can potentially recruit dual enrollment students to continue their education into degree programs at their institution.” State College Representative 5 reiterated, “The college looks at dual enrollment students to recruit them, which means that students are converted from dual enrollment to regular status.” Additionally, State College Representative 2 stated, “Colleges and universities use dual enrollment as a recruitment tool to showcase programs, financial aid, and admissions.”

Dual enrollment’s program structure encourages collaboration between high schools and colleges that involves college access and success, which is beneficial to both parties (Hofmann & Voloch, 2012). Some colleges and universities actively recruit

students with an IB diploma (Culross & Tarver, 2011). In terms of all acceleration mechanisms, colleges and universities benefit from acceleration mechanisms by increasing the diversification of the student bodies (Lewis, 2009). Colleges and universities are able to engage in recruiting students who have participated in these programs.

Subsequently, acceleration mechanisms can assist in the transition from high school to college, as well as shorten the time to degree. By raising the academic level, students are better prepared for college and can shorten their time to degree by being granted college credit (Klopfenstein & Lively, 2012). Dual enrollment students better understand their academic level and whether it is comparable to being college ready (Speroni, 2011a). In addition, dual enrollment students are able to try on a college to see if they want to continue being associated with it after high school graduation. This initial experience with the college may foster a better relationship with the college and student, which could result in a higher retention rate. Dual enrollment students taking courses at the college also gain a better comprehension of college behaviors and expectations that translates into a smoother transition from secondary to postsecondary (Karp, 2012). As a result, these students improve their chances of college access and degree attainment (Robinson, 2011).

In terms of shorter time to degree, State Education Official 1 stated, “Another benefit for the college is that these students may receive target advising that will allow these students to be pulled through the degree in a more direct way than regular college students.” For example, SUSF Representative 7 commented, “Freshman students with acceleration-mechanism credit at early registration can sit down and plan a degree in 3 years with a program of study.” In addition, SUSF Representative 7 pointed out,

“Acceleration mechanisms can decrease time to degree.” Then State College Representative 5 declared, “Acceleration mechanisms eliminate the duplication of courses.”

All acceleration mechanisms offer similar benefits to college and universities. Students who have participated in these programs are attractive candidates for admission to these colleges and universities because they are identified as being prepared for college, which is a key factor in retention and degree completion. As a result, colleges and universities may actively recruit these students. Because they earn college credit before entering a college, these students can shorten their time to degree. The only difference among the acceleration mechanisms is that dual enrollment students actually take classes at the college campus and will experience the college environment directly before graduating high school.

#### **Results for Research Question 4**

What are the benefits of acceleration mechanisms to high school students? The researcher examined interviewees’ comments from the one-on-one interviews and document analysis of published sources to answer the question. Numerous benefits of acceleration mechanisms existed for high school students. In fact, the benefits were categorized into the following groups: college, high school, and self.

For the college category, several benefits exist for students who participate in acceleration mechanisms, such as gaining advantage in college admissions, experiencing college environment, earning college credit, receiving scholarship opportunities, minimizing the cost of college tuition, reducing time to degree, and increasing chance to degree attainment. For clarity purposes, these benefits, along with the supporting evidence, are listed in Appendix J. Each benefit has a minimum of two benefits

associated with it. The benefit of college admissions generated the most specifics.

Regarding the category of high school, the benefits for the students include being associated with like-minded students, raising high school grade point averages and class ranking, receiving higher quality instruction by the best teachers in the high school, and comparing themselves against comparable students across the nation.

Students enrolled in all acceleration mechanisms appreciate the association with students who had similar objectives and goals for their learning experience. High School Representative 11 commented, “Magnet programs such as IB and AICE attract likeminded students. As a result, the students are a part of a smaller community with the resources of a large high school.” In terms of AP and dual enrollment, High School

Representative 4 declared, “Other reasons students participate in dual enrollment or AP is because they like to be in classes with other studious students who can accomplish more academically.”

Acceleration mechanisms directly affect class ranking and high school grade point average, resulting in a significant advantage for students participating in these programs. High School Representative 6 declared, “Acceleration mechanisms affect class ranking in big time because, at the interviewee’s high school, to be a valedictorian or salutatorian, the student has to be an AICE student.” High School Representative 4 addressed the gain in high school grade point average by stating, “The students increase the grade point average when taking AP classes, which are weighted the same as dual enrollment.” Furthermore, the researcher would clarify that IB and AICE receive the same weight as AP and dual enrollment.

An additional benefit of acceleration mechanisms to students is that the best teachers are allocated to instruct students in acceleration mechanisms programs. Two high school representatives interviewed supported this point. First, High School Representative 6 stated, “The high school’s best teachers are AP, AICE, and dual enrollment.” Then, High School Representative 11 affirmed, “The best teachers teach in these acceleration mechanisms.” The researcher believes that IB also has the best teachers, even though it was not directly stated. These programs either require additional credentials for participating teachers, or the acceleration mechanism programs have regularly scheduled professional training for participating teachers.

A final minor benefit that is associated with the category of high school is the ability to make comparisons at the national or global level. High School Representative 3 stated, “In terms of AP, teachers and students can be compared on the national level.” The assessment of acceleration mechanisms is structured to allow students, teachers, and high schools to assess their performance in comparison to others who participate in these programs.

The last category of benefits to students is in the area of self, which covers a wide array of benefits, ranging from course rigor and college recruitment to the relationship to real-world application. From the interviews and document review, it appears that the most significant benefit to students is the rigor or academic challenge that students receive by being involved in acceleration mechanisms, which is something that keeps the students actively engaged as learners in high school.

All stakeholders interviewed felt that acceleration mechanisms of all types do effectively prepare students for the rigors of college. In addition, academic sources touted the challenging and rigorous curriculum that acceleration mechanisms provide to

students. From a state perspective, State Education Official 2 stated, “IB and AICE are good options. These programs are a focused couple-year curriculum and highly rigorous.” In addition, the vendor indicated, “The College Board prepares AP students to succeed in college and progress efficiently toward college completion.” District Official 1 cited, “Another important reason that high schools choose to offer acceleration mechanisms is for students to have the opportunity to be challenged instead of only being able to take a standard class in which the students might be bored.” In addition, SUSF Representative 3 declared, “In regard to dual enrollment, students can prove that they can be successful in a rigorous academic environment.”

High School Representative 3 avowed, “The high school promotes exposure to academic rigor through these acceleration mechanisms because the students will experience the rigor later in their education.” In regard to AICE, students take a rigorous curriculum that trains them for their postsecondary studies (Shaw, 2011). The IB program strengthens the range and extent of knowledge in the subject matter (Culross & Tarver, 2011). Furthermore, AP affords students a strong academic basis to build upon their postsecondary career (Lipp, 2011). Lastly, dual enrollment has been found to prime and enrich the students’ undergraduate education by exposing them to rigorous curriculum (Lewis, 2009; Lipp, 2011; O’Brien & Dervarics, 2012; Robinson, 2011).

The next benefit of acceleration mechanisms is the realization that students are not ready for college. By having students learn about college early, they can discover if they are at college level of learning, which will reduce the need for remediation or the number of remedial courses taken (Lewis, 2009; Lipp, 2011). Consequently, students may realize that they need to improve their skills in certain subject areas before considering college (Speroni, 2011b). High School Representative 3 stated, “As a result, the student will

realize that he or she is not ready for the next level. The interviewee states that good can happen from the exposure to the course is hard.” In summary, students participating in any acceleration mechanism can determine their weaknesses before graduating high school, so that they can better prepare for their transition to college.

Another student advantage of acceleration mechanisms in the category of self is the variety of courses and how these courses correlate to a student’s future educational. Dual enrollment programs offer a wide assortment of courses that include academic and technical courses, which can assist students in choosing and developing their future educational or career path (Caradona, 2012; O’Brien & Dervarics, 2012). In addition, AP courses have an extensive course offering from which students may select (King, 2010), High School Representative 5 stated, “Dual enrollment program meets students’ academic needs when high school does not have the allocation to offer courses, especially the range of courses that dual enrollment can.”

An additional category-of-self benefit is the flexibility and freedom that students can experience when joining acceleration mechanism programs. For example, SUSF Representative 5 stated, “Students want the freedom of choosing college classes and having the guarantee of earning college credit upon successful completion of the course.” In addition, State College Representative 6 described, “High schools are unable to provide flexible scheduling and cannot provide such a wide selection of courses.” High School Representative 12 added another perspective to the freedom benefit by stating, “Dual enrollment is a stress reducer for students who are full time at the college. These students get off the rat race because they get out of the high school calendar and on to the college calendar.” The AP and dual enrollment programs offer the most variety of

courses, and dual enrollment provides the most flexibility because it presents the option for students to take classes at the college campus and possibly at the high school site.

Students gain from their participation in acceleration mechanisms by how it increases their self-esteem and pride from knowing they are taking on the additional academic challenges of these programs. Both AP and IB have found their programs helpful in advancing a student's self-esteem by pushing the student beyond his or her preconceived limits (Hill, 2011). From the high school perspective, High School Representative 12 cited, "Students are attracted to acceleration mechanisms because they want the status and the challenge associated with the programs." In addition, High School Representative 8 added, "The positives with AICE are a sense of accomplishment, sense of being a part of something, really being able to achieve, and preparation for the future." From another high school perspective, High School Representative 3 identified, "Students pride themselves in being able to participate in acceleration mechanisms because they are set apart from their classmates." All acceleration mechanisms can boost self-esteem by challenging students to stretch themselves academically.

A minor advantage for students enrolled in acceleration mechanisms is that they can be recruited by colleges and universities. For example, elite colleges and universities actively pursue students who have graduated with an IB diploma to apply to their specific college (Culross & Tarver, 2011). Another example of the recruiting benefit came from SUSF Representative 6 when he stated the following:

Students are taking exams earlier in their academic career (i.e., 7th, 8th, 9th, and 10th grades). Colleges and universities can purchase names from the College Board of students who passed exams or students who have taken AP in earlier grades. As a result, this ability can be used as a recruiting tool.

By enrolling in acceleration mechanisms, students benefit by acquiring a sense of higher responsibility. Specific to dual enrollment, State College Representative 6 stated, “Dual enrollment offers high school students a more mature environment and a chance to accelerate in the areas where they scored at college level.” These students become immersed into the college environment that requires students to take more ownership in their education.

Acceleration mechanisms provide students opportunities for improved college access, more informed career selection and entry, and concentration on their specific interest. Acceleration mechanisms make college more accessible for students by getting them prepared for college and the chance to earn college credit (Lipp, 2011). In addition, acceleration mechanisms make available courses ordinarily unavailable to them that allow students to concentrate on a specific discipline (Shaw, 2011). By giving students an opportunity to earn college credit before high school graduation, students can finish college earlier, which allows them to start their careers sooner (Klopfenstein & Lively, 2012). State College Representative 2 declared, “The whole acceleration mechanism offers a good opportunity for students and is an equalizer in terms of interests and backgrounds (i.e., 4-year and technical degree).”

A supplementary benefit for students being involved in acceleration mechanisms is that these programs develop their critical thinking and communication skills. Specifically for AICE, students are exposed to a curriculum that encourages and improves their analytical and communication skills through debate and writing learning activities (Shaw, 2011). In addition, IB’s curriculum enhances a student’s critical thinking and writing skills (Culross & Tarver, 2011). The IB curriculum actively promotes students’ activities in researching, analyzing, and communicating their

academic thinking and learning (Finkel, 2012).

Another advantage of acceleration mechanisms is that the curriculum promotes real-world application of subject knowledge, while providing a hands-on approach to learning. The AICE encourages students to apply knowledge gained to real-world applications, thereby increasing the quality of student learning (Shaw, 2011), such that AICE provides hands-on learning opportunities to increase student engagement.

The final benefit of acceleration mechanisms to students is the exposure to the international perspective that can prepare them to become more competitive in the global marketplace. The IB curriculum is steeped in the international mindset that gives students exposure to different points of view, such that their learning has a wider context (Culross & Tarver, 2011). As such, IB bridges the local curriculum to the global mindset, and, effectively in a similar way, AICE also introduces students to international perspectives to develop their global perspectives (Finkel, 2012).

### **Results for Research Question 5**

What are the benefits of acceleration mechanisms to the state of Florida? The researcher answered the question by applying the appropriate comments of the one-on-one interview with key participants, as well as including a document analysis on the topic from published sources. These responses concentrated primarily on financial factors either directly or indirectly as being the principal benefits to the state of Florida.

Because of budgetary shortages and concerns, state governments are increasingly relying on acceleration mechanisms as a means for students to earn college credit to shorten their time to earning a bachelor's degree and decrease their time in the state's educational system, which is something that would allow more students to participate

(Speroni, 2011a). In addition, High School Representative 11 stated, “The state’s mission is to get students through as quickly as possible. It costs a lot of money to educate students.” Also, SUSF Representative 4 declared, “In regard to the Florida state university system, acceleration mechanisms are used as accelerated degree programs.” Furthermore, SUSF Representative 4 directed, “Acceleration mechanisms are most valuable at boosting public education, which is the majority of high schools.” State College Representative 3 declared, “Acceleration mechanisms offer high school students both financial and career opportunities they may never have had.” State Education Official 1 cited, “In regard to the state, dual enrollment gives students an opportunity or better chance at attaining their college degree.”

In terms of AP, students who took both course and exam enhanced their chances of shortening their time to degree, when compared to their peers who did not participate in AP (Wakelyn, 2009). Subsequently, Klepfer and Hull (2012) discovered that, in both 2-year and 4-year institutions, students from a low socioeconomic background and previous low achievement who took an AP or IB class had a greater chance in persisting in college than did high socioeconomic status and prior high achievement students who were not involved in AP or IB. In addition, AP students have been determined to have higher bachelor’s completion rates and grade point averages than students of similar ability who did not participate in the program (King, 2010).

In terms of dual enrollment, previous research studies have shown that dual enrollment students increase their likelihood of college attendance and enhance their first-year retention (Lewis, 2009; O’Brien & Devarics, 2012). As a result, acceleration mechanisms save the state money by improving a student’s likelihood of attending college and graduating with a bachelor’s degree.

### **Results for Research Question 6**

For Research Question 6, the researcher explored the reasons that students selected specific acceleration mechanisms. In addition, the reasons for program success of these acceleration mechanisms were appraised. Research Question 6 asked the following: What factors influence the selection process and program success of acceleration mechanisms? The researcher responded to the question by making use of the comments of the one-on-one key participants' interviews and the document analysis of published sources. Several factors of the selection of acceleration mechanisms and its success were unearthed during the research process. These factors ranged from high school and student characteristics to proximity to finances.

There are six factors affecting the selection process and program success: (a) location or convenience, (b) school profile, (c) individual student characteristics or factors, (d) program, (e) competition, and (f) money. These factors have some overlap and work jointly to influence both selection success and program success. For example, as District Official 2 stated, "In summary, money, allocations, class size, and the number of high level students at a high school are factors in determining the number of acceleration programs and the type of acceleration programs offered at a particular high school." Yet, State College Representative 2 declared, "Prevalence of acceleration mechanisms is determined by location of high school, size of high school, financial incentives, and geographical area of the United States." As a result, many factors and combination of these factors determine the acceleration mechanisms offered at a high school.

The main factor prompting the selection process and program success of acceleration mechanisms seems to relate to the location and sub factors pertaining to the

high school's location. As SUSF Representative 10 avowed, "Some dual enrollments are just doing what is available in their community." In a research study conducted by Klopfenstein and Lively (2012), dual enrollment students were significantly found to be from rural areas. A possible explanation was that dual enrollment courses were affiliated with community colleges, which are more geographically dispersed to serve rural areas. In addition, minority and rural students often do not have access to AP courses (Lipp, 2011). Yet, High School Representative 4 declared, "AP is very accessible."

Logistical considerations can factor into the selection of acceleration mechanisms by students (see Appendix K). These considerations have been grouped into the areas of transportation, college schedule, and high school schedule as influencing the decision of students participating in acceleration mechanisms, primarily with a focus on dual enrollment. In terms of AP, AICE, and IB, students may not have the option to select these acceleration mechanisms, depending on the high school's offerings. For example, State College Representative 2 stated, "IB and AICE were offered on a more limited basis because they were not available everywhere." Consequently, State College Representative 1 cited, "They will select an acceleration mechanism based on the ones that their zoned high school offers." As a result, students' selection often depends on the offerings made available by the high school. State Education Official 2 declared, "The advantages of AP, IB, and AICE could be that the scheduling is all at the high school." By having the option of taking accelerated classes at the high school, students do not then have the transportation concerns, while needing to work around their high school schedules.

A high school's profile or characteristics directly influences the acceleration mechanisms offered because it is highly dependent on credentials of teachers, number of

high level students, size of high school, level of socioeconomics, type of recruitment, and culture of school. Teachers also affect the high school's ability to have acceleration mechanisms. For example, District Official 2 stated, "If a principal loses an AP teacher, then the principal needs to assess the school's teachers to see if anyone has the teaching skills, intellect, work ethics, and training to replace the retiring teacher." Then, District Official 2 further commented, "Two of the main challenges in implementing acceleration mechanisms are allocations and teacher credentials or certifications."

The number and quality of teachers regulated the high school's offerings of acceleration mechanisms even more than the number of high-academic-level students at the high school (Iatarola, Conger, & Long, 2011). Yet, a high school must have a significant number of high-level students, which can be determined by the students' eighth-grade reading-level scores, before having the needed demand for offering acceleration mechanisms to students. In addition, the school must have students with the desire and the ability to succeed through their participation in acceleration mechanisms.

High school size and socioeconomic status seem to affect the concentration and intensity of acceleration mechanisms provided by the high school. For instance, the high schools that had a wide variety of AP courses and number of AP course sections also had a higher socioeconomic level, which is something usually associated with large suburban high schools (Klopfenstein & Lively, 2012). A closely related subfactor to the school's size and socioeconomic status of the students' families involved the school's resources. If a high school does not have the lab or facilities, then the college may not approve dual enrollment courses to be offered at the high school (OPPAGA, 2011). For IB and AICE programs, similar reasons existed for the decision of high school administrators to offer

both of these programs (see Appendix L). Both of these programs require additional funding because of the programs' fees for required site visits and accreditation, not including other costs associated with each program.

It also appears that the high school's recruitment programs influenced the selection process and program success of acceleration mechanisms. Each high school approached the recruitment of students to participate in acceleration mechanisms differently, and this seemed to directly relate to the school's specific philosophy of acceleration mechanisms. Some high schools permitted any interested students to participate in AP, which would affect the school's approach to recruitment. The research has shown that open access to AP is not problematic, but guidelines should require teacher recommendations and current grade point averages (King, 2010). Moreover, the National Governors Association influenced high schools to decrease the usage of course prerequisites in favor of using a criterion for assessing AP potential (Wakelyn, 2009).

Although teachers had been limiting students being allowed to take AP courses, High School Representative 10 declared, "Teachers push acceleration mechanisms."

Other methods have been cited to encourage participation in acceleration mechanisms.

For instance, High School Representative 5 acknowledged the following:

Acceleration mechanisms are promoted at the interview's high school by the following: an AP parent night, curriculum guide, interviewee encourages students, word of mouth from other students, teachers promoting acceleration mechanisms, offer students opportunities to take placement test at the high school, and have an open door policy for parents and students to inquire about acceleration mechanism.

Most schools applied these mentioned recruitment activities. Teacher encouragement has been found to be influential in inspiring students to participate in AP courses, especially for Latino students (Walker & Pearsall, 2012). In addition, school and college outreach efforts have positively affected the recruitment of minority students. These outreach

methods were made primarily through public relations, via printed information in newspapers, publications, and course catalogs (Lipp, 2011). As such, recruitment practices do play an important part in the selection and success of acceleration mechanisms at the high school.

Finally, in the category of school profile or characteristics, a high school's culture was shown to influence the selection and success of acceleration mechanisms. For example, SUSF Representative 3 stated, "Parents are driving schools to offer acceleration mechanisms because of expectations of high schools." Students have elected to become involved with AP courses because the school created high expectations for its students (Wakelyn, 2009). Another factor associated with a school's culture was how the school was graded. District Official 1 cited, "High schools choose to offer AP, IB, AICE, and dual enrollment because of a school grade." High school personnel have been impacted because of the school grade. In fact, State College Representative 5 affirmed, "All of the high school's personnel have the pressure to perform well so students may be encouraged to place students in acceleration mechanisms that would not have been encouraged to participate before the changes to school grade." All of the mentioned school profiles or characteristics greatly affected the selection and success of the acceleration mechanisms.

Numerous factors influenced students' selection of acceleration mechanisms and the decision to participate (see Appendix M). The factors ranged widely among people affecting the decision, extracurricular needs and commitments, desire of association, and achievement. Regarding students' characteristics or factors, influence was found to be a major factor in the selection and success of acceleration mechanisms by students. A major guidance to students was their parents. High School Representative 2 stated,

“Students participate in acceleration mechanisms due to their parents’ influence and involvement. These parents encourage their children to be productive members of society.” In addition, High School Representative 1 reiterated, “The biggest reason for AP student participation is parent involvement. Sometimes, parents push kids even though their child is not ready.” Yet, friends played a more significant role in motivating students choosing to participate in IB than even parents (Culross & Tarver, 2011).

Siblings also influence the decision to participate in acceleration mechanisms. High School Representative 12 declared, “The influence of friends and siblings affects the desire of students wanting to participate in acceleration mechanisms along with going to get in a good college.” As a result, another influence factor on students’ participation in acceleration mechanisms was the college admission process, as well as the desire to be prepared for college (Milburn, 2011). The need for socialization also factored into the selection of acceleration mechanisms. Students desired to be with their friends, as well as be competitive in the college admissions process. For example, High School Representative 12 stated, “Often students are interested in acceleration mechanisms because they want to hang around certain people, go to a certain high school, earn college placement, apply to certain universities, and attend a certain university.” Students viewed acceleration mechanisms as a means to an end.

Perceived status also swayed students’ participation choices for acceleration mechanisms. For instance, High School Representative 13 suggested, “These students are in AICE because they have pride and want to be in the top group with other smart kids.” Furthermore, High School Representative 6 affirmed, “In terms of AICE, the students like the program because it is a model program and elite.” Students often selected a specific acceleration mechanism based on its perceived status at the high schools. For

example, State College Representative 6 stated, “The students decide to not dual enroll because they want the status of being registered in an AP class.” Subsequently, High School Representative 1 declared, “Students choose AP because of prestige, and it is a heavily researched program.” Finally, SUSF Representative 1 declared, “An IB student says, ‘I’m an IB student.’” Students felt a sense of pride when being associated with certain acceleration mechanisms.

Academic preparation and other academic reasons also factored into a student’s decision to participate in acceleration mechanisms. High School Representative 8 stated, “Students are attracted to acceleration mechanisms because of the rigorous curriculum and the international perspective.” Another academic reason for participating in acceleration mechanisms was because of the increased weight added to a student’s grade point average. For example, High School Representative 4 cited that the students increase the grade point average when taking AP courses, which are weighted the same as dual enrollment. In the state of Florida, AP, IB, AICE, and dual enrollment courses were weighted an additional full point, which means that students taking acceleration mechanisms earn 5.0 points when earning an A rather than 4.0. The final academic reason was the desire to earn educational credentials. Wealthy parents encouraged their children to be involved with acceleration mechanisms as preparation to compete in the global marketplace (Resnik, 2012).

For dual enrollment, the selection and success in the program have been dependent on the characteristics of participating students. For example, students’ experiences with other acceleration mechanisms also affected their selection of dual enrollment. As SUSF Representative 1 stated, “If the student as a junior is struggling in IB, then as a senior the student may take a little IB or AP or go completely with dual

enrollment.” Dual enrollment students’ characteristics differed from those of IB students, as mentioned by SUSF Representative 9, who commented, “Traditionally, IB students are more affluent and academically inclined whereas dual enrollment is more urban.” Dual enrollment students had different motivations than students participating in other acceleration mechanisms. For instance, ICUF Representative 2 explained, “Dual enrollment students are strong students, but their end goal is getting their degree sooner.”

Yet, dual enrollment students took into account their obligations before committing to their participation. High School Representative 12 suggested, “Some dual enrollment and AP students need to look at their whole life to assess to see if they have the time to participate in acceleration mechanisms.” In summary, these students’ characteristics, previous experiences, and time commitments influenced the selection of acceleration mechanisms as well as their level of commitment to the acceleration mechanism.

The program characteristics of acceleration mechanisms directly influenced a student’s decision in selecting an acceleration mechanism. For IB, students and parents elected the program because its curriculum has been proven through research to prepare students better to compete globally in their future careers (Resnik, 2012). In addition, IB offers an international credential instead of solely a state certification. Another characteristic of IB is the curriculum and its rigor. For example, SUSF Representative 4 stated, “AICE and IB magnet programs have a prescribed curriculum, and students take all advanced courses, which may be only suitable for a student who is gifted in all subjects.”

Students in IB as well as AICE must be admitted into the program, and part of the selection process involved students' academic ability. Students in these programs typically have strong academic histories across all subjects. High School Representative 11 affirmed, "Cambridge and IB students are in the 85% and above group in standardized tests, which is a baseline for the program." The final characteristic that IB, AICE, and AP had in common was the fact that each program's courses were considered to be secondary courses until the student earned a passing score on the standardized exams. As SUSF Representative 2 stated, "In regard to AP, IB, and AICE, students challenge themselves, but if they do not pass an exam, then they do not get college credit and no risk is involved."

The AP and dual enrollment programs have commonalities that attract students to selecting these programs. One of the main characteristics of AP and dual enrollment is the variety of courses from which students can choose. District Official 2 cited, "AP and dual enrollment offer students more freedom because these programs allow students to choose a class. These two acceleration mechanisms do not have a set curriculum." High School Representative 1 reiterated this sentiment by declaring, "Students are attracted to dual enrollment and AP because these programs open up a variety of courses to take and they experience classes that they want to take for future educational and career plans." Students were drawn to these programs because students do not have to be strong in all subjects, so they can choose courses based on their academic strengths. High School Representative 10 stated, "In regard to AP, students gear courses toward their academic strengths. Dual enrollment is the same as AP in that the student gears their course selections toward their academic strengths." A comparison of the various acceleration mechanisms, according to each category, is shown in Appendix N.

Yet, AP and dual enrollment have differences in their programs that influence student selection. For example, AP and AICE have exams at the end of the year or course. As a result, students have the pressure of the test, so some students choose dual enrollment because they do not want the stress of the end-of-course exams. Dissimilarity between the programs is in the area of instruction. High School Representative 5 affirmed, “Students do well in dual enrollment because they are accustomed to the type of instruction of dual enrollment teachers: ‘This is what I want you to know.’” The final differentiation between AP and dual enrollment is in the area of resources and support. Most of the dual enrollment programs were housed by community colleges that do not have the resources of the College Board. For all high schools that have AP, the College Board provides support in terms of information, publications, and other resources (Lipp, 2011). As a result, AP has more standardization that can be attractive to students depending on their educational goals and interests.

In the category of competition, information was divided into the subcategories of high school related and admissions. In terms of high school related, perceptions varied greatly regarding the pressure that high school personnel felt to compete against other high schools to attract high-level academic students. A major driving force for high schools was being compared to other high schools. As a result, High School Representative 4 stated, “The mentality is how the high school looks compared to other high schools.” The high schools use acceleration mechanisms to attract top-notch students. For example, SUSF Representative 8 explained the high school’s decision to select acceleration mechanisms by affirming, “High schools choose to offer AP, IB,

AICE, and dual enrollment because of the following reasons: the demand for courses and college credit opportunity and competition between the high schools.”

Often high schools compete against other high schools in their district. District Official 2 cited, “If a school district has an IB program, then the other schools have to find something to keep their high-level students at their home high schools.” One interviewee’s high schools significantly increased the numbers of high-level students by implementing the AICE program. For instance, High School Representative 11 declared, “Before the Cambridge program, the high school had 15 to 20 top-notch students. Now, in the AICE’s ninth year at high school, it has 123 top-notch students who earn about \$8,000 to \$10,000 based on their performance on exams.”

In addition, acceleration mechanisms assist high schools in their school rank or grade. For example, High School Representative 6 pronounced, “The number of AP courses and AICE courses along with the success rate in these courses helped the high school’s rank.” Competition and high school rank drove the focus of acceleration mechanisms and students’ participation to the forefront of high school personnel. As a result, High School Representative 4 avowed, “Teachers and guidance counselors feel pressure to increase numbers in AP and dual enrollment for the purpose of school grade.” Although the nature of competition varied, competition propels high schools to utilize acceleration mechanisms and to embed them in their high school’s culture.

On the subject of college admissions, the selection and success of acceleration mechanisms could be influenced by how the program could improve the student’s academic profile. College admissions criteria were influential to a student’s decision to choose a specific acceleration mechanism. Often colleges and universities have a limited

number of spaces available to admit freshman students, but the institutions have an abundance of applicants, so students were driven to set themselves apart from others (Shaw, 2011). As a result, High School Representative 11 stated, “Students participate in AP, IB, AICE, and dual enrollment so that they can be competitive.” Some students treated acceptance into colleges and universities as a status symbol. As ICUF Representative 2 avowed, “AP, IB, and AICE students see how elite an institution is that they can get admitted in.” In particular, a reason for students selecting IB or AICE was to earn the program’s diploma, which assisted students in the admissions process. In referencing IB and AICE, District Official 2 asserted, “Both programs offer independent diplomas that carry considerable weight with college in terms of admission.”

Another college admissions factor was the student’s decision on the type of colleges applied to for admissions, which affected the selection of acceleration mechanisms. If a student desired to attend a 2-year college, then a student was more likely to select dual enrollment (Speroni, 2011a). On the other hand, students chose AP when they planned on attending a selective 4-year university because of its preference for AP over dual enrollment. College admissions criteria were a powerful force for determining how students selected their participation in acceleration mechanisms.

Money, funding, and incentives also influence the selection and success of acceleration mechanisms. For AP, federal and state funding and incentives affected student participation in the program. For instance, after the No Child Left Behind law was implemented in 2001, federal subsidies were used for professional development of teachers, as well as to cover the cost of exam fees for students from low-income families (Klopfenstein & Lively, 2012). Other federal legislation included AP incentive and AP fee-reduction programs (Lipp, 2011). Sixteen states devoted funding or monetary

incentives to encourage minority and low-income student participation in AP, especially in the form of lowering the expense of AP exam fees (Barnard-Brak et al., 2011).

Because of the economic downturn in 2008, students were attracted to AP and the possibility of earning college credit by earning a passing score on the AP exam. Financial considerations stimulated participation in acceleration mechanisms.

In terms of financial incentives, AP, IB, and AICE were often grouped together because of the similarities of incentives associated with these programs. High School Representative 11 proclaimed, “IB, AICE, and AP bring a lot of money to the high school.” Furthermore, State Education Official 2 stated, “When the student passes AP, IB, and AICE, the school and the teachers get incentive funding.” With budgetary constraints, high schools sought additional funding so these programs that have incentives tied to them are attractive to these schools.

Dual enrollment has more indirect funding affiliated with it. High schools do not receive direct funding for dual enrollment; instead, the funding goes directly to the district. Students experience the majority of the financial benefit of dual enrollment with the exemption of tuition, registration fees, and lab fees, as well as free textbooks for public school dual enrollment students (Speroni, 2011b). As a result, parents were interested in the program. As SUSF Representative 1 stated, “Dual enrollment parents are looking at the financial aspect.” The economy shaped parental interest in the dual enrollment program. State College Representative 6 pronounced, “Because of the economy, parents seem to be more interested in dual enrollment.” Yet, the composition of the school district’s tax base and financial resources shaped the selection of acceleration mechanisms because the district has to be able to afford offering acceleration mechanisms. District Official 2 affirmed the following:

How viable is it to offer acceleration mechanisms? A school district's tax base comes into play because most school districts have to monitor numbers and budget and may have to take back allocations, whereas richer school districts look to their tax base.

As a result, the school district has to sometimes make decisions to scale back the level of acceleration mechanisms or the number of acceleration mechanisms offered. As SUSF Representative 3 stated, "If school districts can afford it (expense) and have need for it, then acceleration mechanisms offers a great opportunity to stretch students intellectually." Money, along with several factors mentioned previously, affects the selection and success of acceleration mechanisms.

### **Results for Research Question 7**

Research Question 7 was established to contrast dual enrollment against the other acceleration mechanisms. Understanding the differences and similarities of dual enrollment and the other acceleration mechanisms is imperative in establishing the positioning of dual enrollment in the acceleration mechanism industry, as well as evaluating its short-term and long-term viability. Research Question 7 asked the following: How does dual enrollment compare to the other acceleration mechanisms? The comments of the one-on-one key participants' interviews and document analysis of published sources were applied by the researcher to answer Research Question 7.

In addition, SWOT analysis comparisons were used to detail each acceleration mechanism's strengths and weakness, as well as the opportunities and threats that applied to all of the acceleration mechanisms as a whole. The researcher provided a comprehensive SWOT analysis for AP, IB, AICE, and dual enrollment (see Appendix O). Finally, Porter's model was used to identify the specifics of each force placing pressure on dual enrollment. The specific forces reviewed were the power, vigor, and competence

of existing competitors, complementors (i.e., government), customers (i.e., parents and students), and suppliers (i.e., colleges and high schools). This process includes the possibility that what the organization is now doing can be done in a different way, while considering the power, vigor, and competence of current or potential competitors. Each force of Porter's model was scrutinized separately depending on the effect that it had on dual enrollment.

**Strengths.** Each acceleration mechanism is examined separately for its strengths. The researcher has highlighted the noteworthy strengths of each acceleration mechanism, which are detailed in Appendix O:

1. Advanced placement. The strengths associated with AP were centered on the acceleration mechanism's reputation of providing quality curriculum in terms of alignment and standardization, along with the resources that the College Board, AP's governing body, delivers to its participating schools and teachers. One of the main strengths is that AP has been solidly entrenched in the market of acceleration mechanisms from the beginning. The AP program has been in existence in the United States for over 50 years and remains the most popular acceleration mechanism (Shaw, 2011). As a result, AP has established a durable reputation and has firmly established its reach in the market.

Prominent strengths of AP concentrate on the program's curriculum. The AP program was viewed favorably because its courses and syllabi were developed by teachers, its exams were scored by external parties, and AP's incentives structures positioned students and teachers on the same side (Wakelyn, 2009). Another benefit associated with AP's curriculum is the fact that its curriculum is standardized, which can be regarded as a benchmark of quality (Speroni, 2011a). The vendor stated, "AP

curriculum revisions are more focused on advancing 21st-century knowledge and skills through global perspectives, interdisciplinary, and applied learning.”

The AP program responded to changes dictated by its stakeholders, the market, and the industry. Related to AP’s longevity and prominence, AP has influenced curriculum alignment from middle schools and high school to higher education (Lipp, 2011). Furthermore, AP curriculum expanded its product line to include pre-AP courses known as Springboard, which was mentioned by High School Representative 5 as a program that helps students to become better prepared for AP courses when they had participated in Springboard.

The final strength of AP to be highlighted is the College Board, the governing body of AP, and its resources. The College Board provides training to its teachers and school personnel via professional-development training opportunities at the national, state, and local levels by hosting conferences, workshops, and summer institutes (Hill, 2011; Lipp, 2011). In addition, AP schools receive extensive support from the College Board in terms of publications, information, and resources (Lipp, 2011). In summary, AP has benefited from its association with the College Board because of the resources and support it has been able to dispense to its schools, teachers, and students.

2. International baccalaureate. The strengths of IB are similar to AP because most were concentrated on its governing organization, which is the International Baccalaureate Organization. Yet, a distinguishing strength of IB is the IB exam passage rate being over 80% in the 2009-2010 school year (Florida Department of Education, 2011). The IB’s governing body is the central organization of IB, directing a worldwide network of schools that use comparable curriculum and textbooks and operating under related missions and standards established by the organization (Resnik, 2012). The IB has

been viewed as the gold standard in education throughout the world, and IB has harnessed this image through various organizational activities, such as (a) ensuring quality control of IB schools via accreditation process, (b) increasing the number of college and universities that acknowledge the IB diploma, (c) unremitting curricular and pedagogical development, (d) judging student's learning by external assessments, and (e) adapting to diverse national curricula and educational traditions.

In addition, IB has three programs that start in elementary school and conclude in high school. Recently, IB developed the IB learner profile, which contains expected student outcomes from participation in the program. To make this profile more effective, IB delivers support and resources to schools and teachers, helping them employ the IB learner profile more effectively (Bunnell, 2011a; Wells, 2011). These resources include the IB's online curriculum center that allows teachers to pose questions or share observations. The IBO's resources produced the significant strengths and program consistencies associated with the program.

Other strengths of IB include its international perspective that the program cultivates in its students through focused standards, curricula, and projects. District Official 2 stated, "IB has the same standards worldwide, and student or individual IB programs can be compared globally." In addition, High School Representative 10 commented, "IB students have to do international projects. As a result, they are more aware of the world around them because they are forced out of the box due to international projects." Furthermore, High School Representative 10 stated, "IB promotes international skills so students require a fluency in a foreign language." These international strengths are an essential part of its sustainable competitive advantage.

3. Advanced international certificate of education. Similar to AP and IB, the

AICE program has a prominent governing body, the University of Cambridge International Examinations, which lends credibility to the program. As a result, a main strength of the AICE program resides with its affiliation of the University of Cambridge International Examinations, the leading supplier of international qualifications for teenagers ranging from 14 to 19 years old (Lim, 2011). The University of Cambridge International Examinations, because of its reputation as an international frontrunner in curriculum development, has significantly influenced curricula in many countries throughout the world, while effectively responding to the different needs of these educational systems. For example, SUSF Representative 4 affirmed the importance of AICE's governing body by commenting, "Cambridge is not going away." Similarly, High School Representative 11 addressed the entrenchment associated with the AICE's curriculum by remarking, "Internationally, AICE is the most popular curriculum," which may be interconnected with Cambridge's reputation.

In terms of the AICE program, other strengths were associated with the program's emphasis and curriculum. The AICE has been more flexible than other acceleration mechanisms because AICE's intent is to allow students to concentrate on obtaining and comprehending a specific subject or discipline chosen by the student (Shaw, 2011). The AICE program focuses on additional study and the future career goals of its students. The AICE and IB programs have similarities that District Official 2 commented on by stating, "AICE requires research." Both programs focus more on research and have classes that cross several disciplines, creating a broader knowledge base for students. A course unique to AICE is its Thinking Skills course that concentrates on "solving problems, critical thinking, and reasoning" (Lim, 2011, p. 787). Furthermore, High School Representative 13 declared, "AICE promotes application, analysis, and critical-thinking skills." These

strengths of the AICE program were the factors that differentiate it from the other acceleration mechanisms.

4. Dual enrollment. The strengths associated with the dual enrollment were predominantly connected with higher education. By participating in dual enrollment, students acquired an indication of their college readiness, as well as better understanding their areas of weaknesses that need reinforcing (Speroni, 2011b). Dual enrollment has various strengths that include improved academic and student preparation for college, reduced time in attaining a bachelor's degree, and accelerated entry into a career (Klopfenstein & Lively, 2012). Subsequently, High School Representative 3 stated a related benefit by commenting, "Dual enrollment is more personalized, and students learn what to expect from college."

Other strengths of dual enrollment were related to its passage rates, as well as how the program benefited the high schools involved in the program. In terms of dual enrollment passage rates, State Education Official 2 stated, "The advantage of dual enrollment is that the student is involved in an entire college course and is much more likely to pass the course." The dual enrollment passage rate in Florida for the 2009-2010 school year was approximately 94% (Florida Department of Education, 2011). Nationally, dual enrollment's passage rates for public school students in academic courses were 93% for the 2010-2011 school year (Thomas, Marken, Gray, & Lewis, 2013).

From the high school perspective, dual enrollment benefits high schools by increasing the range of courses offered to the students. High School Representative 5 stated, "Dual enrollment program meets students' academic needs when high school does not have the allocation to offer courses, especially the range of courses that dual

enrollment can.” From the high school perspective, dual enrollment aided in student engagement by offering a rigorous curriculum that advanced the school’s image, as well as enhancing students’ high school graduation rates and enrollment rates in college (Robinson, 2011).

Primarily, dual enrollment programs were most accepted by high schools in rural areas and small towns. These geographic areas have higher dual enrollment participation rates because of local community demographics and support was more consistent with the benefits of the program (Thomas et al., 2013). Ultimately, the strengths of dual enrollment are its direct college relationships, the high passage rates, and direct high school benefits.

**Weaknesses.** Each acceleration mechanism was scrutinized for its weaknesses, and the major weaknesses are detailed in this section. Appendix O contains an extensive listing of the detailed weaknesses for each acceleration mechanism:

1. Advanced placement. The weaknesses of AP were categorized by the low passage rates, advising conflicts, and minority and location biases. In regard to the AP passage rates, State Education Official 3 stated, “The AP exam does not have a good passage rate.” In fact, the AP passage rate in Florida for the 2009-2010 school year was 41% (Florida Department of Education, 2011). A related weakness was the apprehension of open access for permitting any student interested in taking AP courses. Similarly, AP teachers voiced concern about the effect of AP expansion on the classroom performance and on the AP passage rates (Wakelyn, 2009).

Another area of weakness is that college advisors recommended that students take college classes, even though those students had successfully passed the AP exam for that

class. Concerning the advice to take standardized class at college for which the AP credits had been awarded, SUSF Representative 10 stated, “Even though students may pass an AP exam and are awarded college credit, universities may recommend that the student take the course because of analysis about success in subsequent course work.”

Another advising concern was that universities did not have the most accurate students’ academic history to ensure that students were counseled properly in terms of course work and educational goals. For example, SUSF Representative 6 stated the following:

The downside of these programs is from a college credit and advising standpoint because colleges and universities do not know credit a student is going to receive until the student gets to college, and colleges may not have scores back in time to advise properly.

As a result of both of these factors, students faced difficult decisions in deciding their schedules, especially in their first semester of college.

Additional weaknesses dealt with the location of AP courses and minority barriers or biases. Variances in AP enrollments and programs have been discovered between poor rural school districts and suburban school (Barnard-Brak et al., 2011). In addition, school’s ethnicity and socioeconomic status affects AP access and course offerings. Minority students encountered barriers, such as (a) high school personnel biases in recommending students, (b) feeling isolated, (c) sensing unpreparedness when compared to other students, (d) accentuating the program’s standardized assessment, and (e) achievement to identifying the students via the school system’s early tracking system (Barnard-Brak et al., 2011; Walker & Pearsall, 2012).

Other weaknesses related to minorities were the low passage rates of the AP exam, even though AP made immense strides in participation rates. In fact, SUSF

Representative 9 affirmed this fact by declaring, “In regard to AP 2010, the most African Americans and Hispanics took the AP exams than ever before. Although the participation rate is higher than ever, how many minorities are passing the exam?” Equity gaps in AP participation and success exist for underserved minorities. African American graduates make up 14.5% of the overall student population, and they represent 9.2% of the AP exam-taker population but only 4.4% of the population scoring a 3 or better (College Board, 2012). The primary weaknesses of the AP program include underrepresentation and participation rates by minorities.

2. International baccalaureate. The program’s weaknesses were grouped into the consequences of growth on IB and student-related issues. The IB’s growth has instigated apprehension in the areas of organizational culture, individual school concerns, and program restrictions. In fact, the growth of IB has caused concerns in the areas of the level of diversity and the altering of the organizational culture, as well as the integrity of assessments (Bunnell, 2011b). The expansion of IB affected the program by developing into a methodical system and being measured from a statistical standpoint as a normal means of operation, instead of the individual school’s voice being noted. The IB encountered growing pains that brought about concerns of maintaining the elevated eminence of the IB brand (Resnik, 2012). As a result, the International Baccalaureate Organization assigned certain restrictions in the provision and content of the program that placed limitations on how progressive and innovative the individual schools can be.

The weaknesses of IB associated with students were (a) student academic abilities, (b) stress, and (c) fatigue. High School Representative 9 declared, “In regard to IB, the curriculum is so regimented that few students can perform in all areas.” Students conveyed that their participation in IB caused them to have amplified stress due to the

program's demanding academic workload and the stress to succeed in the program (Hill, 2011). The final weakness connected to student participation in IB was the fatigue associated with the program. For example, SUSF Representative 4 affirmed the student weariness situation by stating, "The disadvantage of these programs is the burnout factor and the limited social and academic interactions with their mainstream peer group."

3. Advanced international certificate of education. The AICE program's main weaknesses were associated with name recognition and concerns about the well-being of students. The principal limitation to the AICE program was the dearth of academic research and nonresearch articles. The few articles located by the researcher had affiliation with Cambridge University, University of Cambridge International Examinations, or the AICE program directly. A closely related weakness that had a strong correlation to the scant research was the lack of name recognition of the AICE program. High School Representative 8 declared, "The AICE program is more recognized outside of the United States."

Another connected drawback of the program was the minor scope of the AICE program, which can be attributed to the lack of name recognition and the insufficient amount of independent research conducted about the program. For example, SUSF Representative 3 stated, "AICE is not particularly significant due to small numbers." The lack of independent research, insufficient name recognition, and insignificant number of participating schools and students contributed to the overall weaknesses of the program.

Other notable weaknesses of the AICE program were student related in terms of amount of work, structured life, and possible extreme lifestyle. These weaknesses were cited by High School Representative 11, who had extensive working knowledge of the acceleration mechanisms and its outcomes on students: "The amount of work of AP, IB,

and AICE affect the students because it limits their social life to a degree. Students perform their extracurricular activities and do their work. These programs put them in a very structured life.” Furthermore, High School Representative 11 also declared the following:

The IB and AICE programs are really strong academics and are really extreme. In regard to mental health wise, these programs may not be great. Parents are trying to pull students back, in terms of loading up on accelerated classes. Yet, students are pushing themselves.

Students sacrifice by participating in the program because of the extensive academic rigor, which can cause students to limit their extracurricular activities and personal selfdirection.

4. Dual enrollment. The foremost weaknesses of dual enrollment include (a) the lack of a governing board and advocacy group, (b) the lack of standards, (c) inconsistency among dual enrollment programs, (d) prevalence of funding issues, and (e) maturity of students to earn high grades in the program. When considering these weaknesses, the pronounced deficiency associated with dual enrollment was the lack of quality standards among all of the colleges that participated in the dual enrollment program (Speroni, 2011a).

Another criticism of the dual enrollment program was the questioning of the college-level rigor along with no standardization of curriculum for the dual enrollment program. As SUSF Representative 4 cited, “Due to no standards, a person cannot be certain of the value of the course.” No federal standards existed for dual enrollment (Caradona, 2012). As a result, states take different approaches to establishing and operating dual enrollment programs. Subsequently, District Official 2 affirmed the following:

Dual enrollment does not have the same comparability due to the structure of the program. Is dual enrollment rigorous enough? Are the courses not rigorous enough or does grade inflation cause the course to be perceived as not rigorous enough?

Another weakness complementary to the deficiency in standards was the variation among state colleges. As SUSF Representative 10 stated, “Dual enrollment depends on the state college. The question remains whether dual enrollment is effective or consistent. Not all state colleges are comparable to universities. I prefer working with test credit than dual enrollment because inconsistency among state colleges.” Comparability of dual enrollment courses, teachers, and students, along with the variation among dual enrollment programs, causes significant reservations about the dual enrollment program quality and consistent outcomes. In addition, lack of standards affects the perception of the quality of dual enrollment program.

Another weakness associated with dual enrollment concerned funding of the program. The apprehension of dual enrollment centered on the program’s funding issues or financial issues (Lewis, 2009). For example, State Education Official 1 stated, “Dual enrollment has no incentive funding associated with it. College is losing money by offering dual enrollment courses.” As a result, state colleges have discussed with the state legislature about changing the funding for dual enrollment. In addition, dual enrollment costs the school districts increasing amounts of money for textbooks and instructional materials, all at a time when the school districts have insufficient funding to cover these mounting costs.

From the high school’s perspective, dual enrollment does not earn the school or the teachers any additional money for successful completion of a dual enrollment courses, unlike the other acceleration mechanisms that generate incentive funding based on successful passage of the associated exam. In addition, the money received from the state

for the dual enrollment program was distributed back to the school district instead of the individual high school, creating a disconnect between funding and actual expenses of the program.

The final vulnerability of the dual enrollment program was the possible impact of the dual enrollment on a student's future educational and career goals. For example, the SUSF Representative 7 affirmed the following:

Dual enrollment grade point average can hurt them in their quest to get their major. One semester can screw up their life plans. They must make the right choices early to get their major or have to go to third or fourth choice of major.

If students did not comprehend the seriousness of being successful in dual enrollment, then the students harm their chances of pursuing their educational goals. For example, High School Representative 4 stated, "Often, parents and students do not understand the impact on the college transcript." The interviewee worried about students earning a D in dual enrollment courses because these grades can impact the student's future, especially when applying to graduate school. As a result, students must comprehend the consequences of being unsuccessful in the dual enrollment program before they begin participation.

**Opportunities.** In terms of opportunities, acceleration mechanisms were examined as an industry instead of by each acceleration mechanism because opportunities were factors that were external to acceleration mechanisms in nature and were considered available to all acceleration programs. Opportunities were identified as possibly coming from the following categories: market developments, partnerships, agencies, distribution, new technologies, services, ideas, economy, and legislative and political effects.

A possible opportunity detected was if acceleration mechanisms employed massively open online courses (MOOC) along with their standard courses to connect

students worldwide, especially with students in rural communities and small towns that do not have the resources of cities and suburbs (Skiba, 2012). If acceleration mechanisms directed their development efforts toward reaching high school students outside of the traditional high school, then another opportunity has been identified to reach new prospective students that are qualified and interested. Another correlated opportunity to reach a new student population consisted of fostering a shorter online course that would permit students to attempt a course to determine if the students are interested in participating in acceleration mechanisms.

An additional prospect for reaching additional students was to deliver courses that were concentrated more on careers or vocations. As District Official 3 stated, “The definition of acceleration mechanisms should be broadened and the focus to include career and technical education. The need for promoting technical skills in acceleration mechanisms existed, in order for students to compete in the marketplace.” Yet, IB has developed career certificate programs that they are beginning to implement; however, this career focus was just beginning.

Increasing focus has been placed on developing the 21st-century workplace skills in order for students to be able to compete in the global marketplace. For example, the vendor declared, “A concern from higher education relates to AP course specificity and the emerging needs for knowledge and skills for the 21st-century workplace.” These skills have been identified, and, if acceleration mechanisms can provide courses that impart these proficiencies to a wide array of students, then a new market opportunity would emerge.

Finally, the state of the economy has an effect on possible opportunities for acceleration mechanisms. High School Representative 6 stated, “In regard to dual

enrollment, parents and students are more interested in dual enrollment when the economy is down, due to the high passage rate of dual enrollment.” Parents were more interested in their students participating in acceleration mechanisms because of the state of the economy and rising college tuition costs. Acceleration mechanisms must be able to adapt to the market forces, as well as any potential changes to high school education and higher education. Technology developments, market developments, partnerships, agencies, distribution, ideas, economy, and legislative and political effects will present new opportunities for acceleration mechanisms.

**Threats.** Acceleration mechanisms faced threats in their growth and possible existence if a paradigm shift occurred in high school education or in higher education. Similar to opportunities, threats were ascertained as possibly coming from the following categories: market developments, partnerships, agencies, distribution, new technologies, services, ideas, economy, and legislative and political effects. Yet, the threats discussed have come from financial impact, changes in higher education, and alternative product to acceleration mechanisms.

In terms of financial impact, funding has been a major threat for acceleration mechanisms, which depend on state funding as well as incentives to promote the programs. State College Representative 2 stated, “The state gives so much money to the school districts for AP and dual enrollment, which may cause these acceleration mechanisms to be more affected by budgetary factors.” Yet, SUSF Representative 4 declared, “I have concerns about AICE and IB because it takes extra funding for AICE and IB and a little bit for AP.” On the other hand, District Official 2 affirmed, “Allocations and increased state regulations affect the acceleration mechanisms.” Although the previous interviewees mentioned the impact of state funding on acceleration

mechanisms, District Official 2 mentioned the effect of the school district's tax base by avowing, "How viable is it to offer acceleration mechanisms? A school district's tax base comes into play because most school districts have to take back allocations, whereas richer school districts look to their tax base."

With the condition of the economy and the rise of college tuition, funding is becoming more of an issue, especially with state funding. For example, based on Colorado's decreased investment in higher education, the state is projected to reach zero funding for its public higher education institutions by 2022, which would make it the first state to attain this mark of no funding (Mortenson, 2012). Reduced state funding for higher education would possibly affect dual enrollment because states, such as Florida, pay tuition for the students. As a result, colleges and universities would depend more on tuition and could not afford to participate in programs that cost them money, such as dual enrollment.

Changes in higher education alter the usage of acceleration mechanisms. Schejbal (2012) stated, "Technology, capitalism, the culture of the United States, federal and state laws, politics, and money are all converging to change the higher education paradigm (p. 385). Transformations of the higher education system would cause a reaction by acceleration mechanisms. High School Representative 11 declared, "High school system reacts to higher education." For example, some colleges are considering not awarding credit for the passage of the AP exam. In addition, some colleges do not award credit to passage of any acceleration mechanism or college credit via dual enrollment. If colleges and universities modified or restricted the awarding of college credit for acceleration mechanisms, the programs would not be as attractive to some students. In addition, if colleges and universities altered their utilization of acceleration mechanisms in the

selection process of college admissions, then acceleration mechanisms would more than likely decrease in popularity.

The final threat was composed of alternative products to acceleration mechanisms. One substitute for acceleration mechanisms would be the creation of a national standard curriculum of eminence. Pockets of excellence exist in high schools, which allow students attending these high schools the ability to not participate in acceleration mechanisms. For example, SUSF Representative 4 stated, “Look at the top U.S. secondary schools. Bronx High School of Science has faculty-designed courses that can be stronger than AP, AICE, IB, and dual enrollment.” As a result, if high schools of excellence increased without the use of acceleration mechanisms, this development would be a threat to acceleration mechanisms. An additional alternative has been the MOOCs. According to Rivard (2003), “Agarwal [President of EdX] and Ng [cofounder of Coursera] said, ‘Precocious high school students use MOOCs to try to boost their college applications’” (p. 23).

More specifically, small numbers of high school students are using MOOCs to enhance their college applications. If these students have success in being granted admission to the college of their choice, then more students may consider enrolling in MOOCs instead of acceleration mechanisms, or they may reduce the number of accelerated courses taken. If students had other means to demonstrate challenging themselves academically than participating in acceleration mechanisms, then the significance or prestige of acceleration mechanisms would change. For instance, if college or universities accepted MOOCs or activity on Khan Academy (Finn, 2012), then students would be more interested in pursuing this alternative means of validating their readiness for college.

Another possibility would be the creation of MOOCs developed by universities for the purpose of assessing prospective high school students for admissions instead of placing weight of participation in acceleration mechanisms. This alternative would lessen the need of participating in acceleration mechanisms for students seeking admission to colleges and universities. Of course, MOOCs are still in the infancy stages of development, so many issues need to be addressed or resolved before they become a serious threat to acceleration mechanisms.

**Porter's forces model.** The researcher utilized Porter's model to conduct an examination about the pressure exerted by the forces on dual enrollment. The six forces are (a) the power, vigor, and competence of existing competitors; (b) the power, vigor, and competence of complementors (i.e., government); (c) the power, vigor, and competence of customers (parents and students); (d) the power, vigor, and competence of suppliers (i.e., high schools and colleges); (e) the possibility that what the business is doing can be done in a different way; and (f) the power, vigor, and competence of potential competitors. Interviewees' comments and articles were applied to each of the six forces in order to differentiate dual enrollment from the other acceleration mechanisms. The analysis was synthesis in Porter's model in order to provide clarity and highlight the significant points (see Appendix P):

1. Power, vigor, and competence of existing competitors. Dual enrollment's competitors were defined as AP, IB, and AICE. These acceleration mechanisms have significant differences from dual enrollment, and the main difference focused on the college credit being awarded based on the passage of standardized exams, and students participating in dual enrollment earn college credit by the successful completion of the course. As a result, SUSF Representative 6 stated, "Dual enrollment is a great tool, but it

is the most dangerous in terms of risk and reward factor.” With the other acceleration mechanisms, if a student did not pass the course or the exam, then the student was not as negatively affected. Yet, if a student failed a dual enrollment course, then the student encountered negative consequences, such as the rescinding of admission to universities and the possibility of losing scholarships and financial aid.

Another difference between dual enrollment and exam-based acceleration mechanisms involved the acknowledgment of these programs by universities. For example, SUSF Representative 2 avowed, “AP, IB, and AICE recognized all over the country, whereas dual enrollment might not be as easily transferable.” In fact, IB has been accepted by approximately 2,765 universities worldwide (Resnik, 2012). Cambridge International qualifications were recognized worldwide and, in 2008, were acknowledged by over 400 U.S. colleges and universities (Cambridge International Examinations, 2008). In 2011, there were 3,300 colleges and universities that received AP exam scores to be evaluated for credit (Advanced Placement Higher Education, 2013).

For dual enrollment, the program’s acceptance by colleges and universities was difficult to determine because of the absence of an organization that governs the program. Subsequently, a central difference of exam-based acceleration mechanisms versus dual enrollment that enhanced the prestige of these mechanisms was the comparability of the programs. District Official 2 proclaimed, “AP, IB, and AICE have accountability because of their end-of-course exam and standards, and these programs can be compared nationally and globally.”

Additionally, these exam-based acceleration mechanisms reacted to the needs and demands of its students, as well as the marketplace. All of these programs have introduced new courses or tracks. For example, the vendor stated, “In Fall 2012, AP is

piloting a course that involves a partnership between Cambridge and AP to develop a capstone program.” In regard to IB, the organization has initiated an IB career certificate program that was aimed at extending its product to a new group of students (Finkel, 2012). This product has some of the same characteristics of the IB program with the added focus on careers and technical skills. In terms of AP, the vendor declared, “The evolution of College Board’s AP curriculum framework has changed over the years in response to the needs of students and college level expectations.” These responses to the marketplace have furthered the standing of these acceleration mechanisms in the marketplace. On the other hand, dual enrollment programs relied on developments made by the individual colleges and universities offering dual enrollment.

From a financial perspective, these exam-based acceleration mechanisms have a substantial comparative advantage over dual enrollment. In regard to incentive funding, State Education Official 3 declared, “AP, IB, and AICE receives incentive funding.” On the other hand, State Education Official 1 stated, “Dual enrollment has no incentive funding associated with it.” As a result, these exam-based acceleration mechanisms were more profitable to high schools than dual enrollment. Moreover, these exam-based acceleration mechanisms obtained funding to stimulate expansion of these programs from private entities and the government. For example, federal and state policy makers, College Board, and private foundations have implemented initiatives to target the extension of IB and AP offerings and high school students, especially from underserved students to take the AP and IB courses and exams (Iatarola et al., 2011).

In terms of a private entity promoting an exam based acceleration mechanism, Google bestowed a \$5 million grant to AP to advance the expansion of AP

sciencetechnology-engineering-math courses to underrepresented minority and female high school students (College Board, 2013b). As a result, these acceleration mechanisms have the means to expand their reach to potential students as well as the capability to persuade educational policy and its stakeholders.

2. Power, vigor, and competence of complementors (i.e., government). The government influenced acceleration mechanisms through the means of money and policy. From a financial perspective, state and federal governments supplied acceleration mechanisms funding. State College Representative 2 addressed state funding by stating, “The state gives so much money to the school districts for AP and dual enrollment, which may cause these acceleration mechanisms to be more affected by budgetary factors.” In regard to dual enrollment, State Education Official 3 avowed, “The state colleges waive tuition for dual enrollment students, used to the state provided 75% of the tuition to the colleges. Now, the state provided 50% of the tuition to the colleges.”

As a result, of the growth of the dual enrollment program and the decrease in state funding to state colleges, the state college system is seeking additional funding from the state legislature during this year’s legislative session, and funding was approved in the means of school districts having to pay the state college’s standard tuition rate for courses taken at the college campus and administrative fees for courses taken at the high school site. State College Representative 1 declared, “The state will need to address dual enrollment funding in terms of textbooks and tuition.”

In Florida, the dual enrollment students do not pay tuition or for textbooks because the state college waives tuition, and the school district pays for textbooks. In terms of AP, for the last 13 years, the AP incentive program funded by the federal government has awarded approximately \$191 million to 140 school districts throughout

the nation to expand access and promote success in the AP program for underrepresented students (Wakelyn, 2009). These examples demonstrate the impact that government funding has on the promotion and continuance of acceleration mechanisms.

The policy created and executed by legislators impacted acceleration mechanisms in terms of its prominence. For example, SUSF Representative 7 stated, “In regard to dual enrollment, legislators are pushing more on high school sites, but it is harder for students to get a college feel when taking dual enrollment courses at the high school site.” By including participation and success in acceleration mechanisms as part of the high school’s grade, legislators fostered the participation of acceleration mechanisms. As a result, dual enrollment became appealing to high school administrators because of its high passage rates. Yet, policy makers have voiced concerns about dual enrollment standards and the level of rigor of the courses (Caradona, 2012).

Furthermore, state legislators have addressed concerns of consistency and the level of rigor of the high school curriculum by introducing and implementing common core standards that were formulated by the National Governors Association in conjunction with the Council of Chief State School Officers (Klopfenstein & Lively, 2012). Common core state standards could be the beginning foundational piece toward a nationally rigorous curriculum geared toward high school students. The effect of the common core state standards on acceleration mechanisms has yet to be determined. The implementation of the standards could help students prepare to participate as well as be successful in acceleration mechanisms.

3. Power, vigor, and competence of customers (i.e., parents and students). Dual enrollment customers consisted of parents and students, and their participation in the program was contingent on the tuition and textbooks remaining free for students. For

example, SUSF Representative 5 avowed, “The growth of the dual enrollment programs may only continue as long as free books and full tuition reimbursement remain part of the program.” Similarly, State College Representative 4 declared, “Dual enrollment is a wonderful opportunity for parents and students so the state would face a lot of pressure from constituency if changes were made to the program.

When considering dual enrollment, the students’ characteristics, attitudes, and motivations varied and differed from the exam-based acceleration mechanisms. In terms of students’ characteristics, dual enrollment students were more likely to be White students than the general population (Estacion, Cotner, D’Souza, Smith, & Borman, 2011). In addition, compared to the other acceleration mechanisms, dual enrollment students were less likely to be Hispanic and economically disadvantaged. When contrasting AP and dual enrollment, AP-only students have stronger academic skills or preparation than dual enrollment students when applying the measure of 10th-grade scores on Florida’s standardized exam (Speroni, 2011a).

Equally important, when evaluating dual enrollment and AP students after isolating student and high school characteristics, dual enrollment students were more likely to attend college than AP students, but the dual enrollment students predominantly enrolled in 2-year colleges, whereas AP students registered at 4-year universities. When differentiating dual enrollment students from participants in other acceleration mechanisms, High School Representative 10 declared, “These dual enrollment students may not be ready for AP, IB, and AICE as ninth graders.”

In terms of motivation and attitudes, dual enrollment students were impelled to participate in the program for various reasons. High School Representative 10 stated,

“Sometimes, IB students go to dual enrollment and leave IB because of the foreign language requirement.” Yet, dual enrollment students have different attitudes than other students involved in other acceleration mechanisms. For instance, ICUF Representative 2 stated, “The dual enrollment students are more interested in getting a degree than education.” Accordingly, State College Representative 2 commented, “These students need to be more focused and have more maturity because by earning a bad grade their transcript will be affected.” Dual enrollment students desired to participate in the program because of its structure and their mindset toward attaining a college degree.

4. Power, vigor, and competence of suppliers (i.e., colleges and high schools). The nature of dual enrollment programs causes colleges and high schools to collaborate, and both serve as suppliers of the program because each entity has the ability to offer dual enrollment courses. The foremost pressures of the suppliers could be related to funding and academic integrity.

Funding of dual enrollment was a dominant issue for its suppliers due to the funding arrangement in Florida because colleges waived tuition and school districts paid for the students’ textbooks. Yet, the 2013 Florida legislature changed the dual enrollment funding structure by approving school districts to pay the colleges for courses taken at the college campus as well as an administrative fee for courses taken at the high school site. Representing a college’s perspective, State College Representative 2 declared, “From a financial standpoint, dual enrollment is not an effective program. As a result, community colleges are not interested in growth of dual enrollment, due to financial implications.”

Another state college interviewee, State College Representative 6, commented, “The unfortunate piece of dual enrollment is that colleges are not getting reimbursed at a reasonable rate for the services and courses they provide to the high school students who

dual enroll.” The funding of dual enrollment did not cover all of the expenses incurred by the colleges. For example, State Education Official 3 stated, “The college’s funding is backward funding with the college receiving funds based on the previous’ years amounts of students. The waiving of tuition is a loss of money for college.” Dual enrollment strained the colleges’ resources, in terms of financial and seating availability.

Furthermore, State Education Official 3 avowed, “Now, whole classes at the college are filled up with dual enrollment students and are a big chunk of the population of the college’s student body. Yet, colleges are not funded at full amount.”

In regard to seating availability, when high school facilities were utilized, colleges were able to free up space for regular fee-paying students (Robinson, 2011). Although dual enrollment programs presented challenges for colleges, the programs assisted in producing a positive image and brand for the college. State College Representative 1 commented that the challenge of dual enrollment was “funding programs because fine line between recruiting dual enrollment students and have less class availability for regular fee-paying students at the local college.” Funding has been a major challenge in dual enrollment that state colleges were forced to address the issue with the state’s legislature.

In terms of dual enrollment funding, school districts and high schools experienced funding issues mainly related to textbooks. For example, High School Representative 5 stated, “One of the main cost challenges to dual enrollment is the fact that textbooks change so frequently, and the textbook funding does not adequately fund for the growth of the program. Furthermore, State College Representative 6 provided more detail about the challenges of textbooks by making the following comment:

The textbook situation with the constant changes in textbooks, rise in cost of textbooks, and rise in the use of access codes is costing school districts a considerable amount of money, and they do not have the state funding to pay for these increased costs.

The funding of textbooks increasingly has become more of an issue in recent years because of the above-mentioned reasons.

Another significant pressure placed on the suppliers of dual enrollment involved the reservations of academic integrity of the dual enrollment program. The rigor of dual enrollment has been questioned in regard to the high school dual enrollment providing a college experience and the possible dilution of education at the college campus by allowing dual enrollment students to enroll in courses (Speroni, 2011b). For example, ICUF Representative 1 declared the following:

The fear with the increase offering of dual enrollment at the high school site is the dual enrollment courses keep their academic integrity. The key for dual enrollment will be to develop more consistency in being managed as the same as the ones on the college campus.

Furthermore, SUSF Representative 10 affirmed the issue of consistency by stating, “I prefer to work with test credit than dual enrollment because inconsistency among state colleges.” The questioning of dual enrollment’s academic integrity has the possibility of being an issue that plagues the program because of the program’s structure.

5. Possibility that what the business is doing can be done in a different way. Dual enrollment programs have difficulty in innovating because of its connections to colleges and universities. For dual enrollment to conduct business in a different manner, colleges and universities would have to transform. The main disparagement against the dual enrollment centered on lack of standardization and assessment. With dual enrollment’s structure of each college and university operating the program,

transformation would be very unlikely because the whole system of higher education would need to be able to impart assessment and standardization.

On the other hand, an innovation that is related to standardization and assessment does exist in higher education in a restricted manner. Competency-based education would be the innovation that would lessen the criticism of dual enrollment not having rigor, standards, and assessment. In regard to competency-based education, students are permitted to work at their own pace as well as assessed on their learning (Fain, 2013). The emphasis of this course structure is determining that the students have mastered the learning outcomes of the individual course. If dual enrollment courses were competency based, then students could have the opportunity to demonstrate their knowledge of course material as well as having an assessment to provide to universities to substantiate the rigor of the course taken. In summary, the structure of dual enrollment precludes the program from being innovative because of its dependency on colleges and universities.

6. Power, vigor, and competence of potential competitors. Dual enrollment and other acceleration mechanisms faced potential competition if alternative methods of proving a student's academic preparation for higher education. In the United States, only a few high schools have the reputation of providing a quality secondary education minus acceleration mechanisms. For example, SUSF Representative 4 stated, "The Bronx High School of Science has faculty-designed courses that can be stronger than AP, AICE, IB, and dual enrollment."

Another possible alternative to dual enrollment and acceleration mechanisms involves the emergence of MOOCs. Small numbers of high school students are utilizing MOOCs to strengthen their college admissions application. In addition, some colleges are awarding college credit for successful completion of MOOCs (Lederman, 2013). The

final manner in which MOOCs could diminish dual enrollment and the other acceleration mechanisms would be if prestigious high schools offered MOOCs, which would open access to rigorous course work to a wide variety of students. As a result, the power of the acceleration mechanisms would be challenged because students desire to participate in acceleration mechanisms to validate their academic preparedness for their college application, to challenge themselves intellectually, and to earn college credit. This dynamic competitive option has yet to be formalized and validated as a long-term alternative that will receive broad acceptance in academic circles.

### **Results for Research Question 8**

Finally, Research Question 8 analyzed how dual enrollment could be enhanced in order to contend in the acceleration mechanisms' market by asking the following: What recommendations can be made to improve the competitive positioning of dual enrollment programs in Florida? The recommendations for enriching the competitive positioning of dual enrollment focused on addressing the main criticisms of the program discovered when conducting the SWOT analysis and Porter's model from the information obtained in answering Research Question 7. The main criticisms of dual enrollment were determined to be apprehensions about the quality of the program as a whole. These concerns consisted of lack of rigor at high school site, deficiency of standardization, inconsistency among state colleges, and students not understanding the cause and effect of participating in the dual enrollment program.

In regard to the rigor of the high school site dual enrollment, a recommendation needed to be made that would strengthen the level of rigor. Although all criticisms of high school dual enrollment cannot be minimized, a recommendation can be made to address the central issue of rigor at the high school site. The recommendation would be to

promote ongoing collaboration between high school site dual enrollment and full-time faculty to make sure that the same content matter and academic standards are similar to college campuses. The statement of standards of dual enrollment requires that dual enrollment teachers have mentors and are evaluated by college faculty.

Yet, most of the time, college faculty members are requiring items from dual enrollment faculty instead of fostering a relationship. Colleges need to provide opportunities for professional development for dual enrollment faculty to learn the academic standards and grading that colleges expect. In addition, colleges need to work with high school administration so these personnel have an understanding of the expectations and requirements of the dual enrollment teachers. Although the high school site dual enrollment may never be able to fully provide the college environment and experience in the high school setting, the fostering of relationships between college and dual enrollment faculty will assist in ensuring that the course content, rigor, and academic standards are comparable.

Another criticism of the dual enrollment program was that students and parents do not understand how participation in dual enrollment can affect their future. If a student earns poor grades in dual enrollment, the student would have to change their major and career choice. A student may have to change the major a couple of times. Yet, students can face long-term consequences by earning average to below-average grades because they may not be competitive when applying to graduate school. Another consequence of dual enrollment participation was that students, when entering into university, have accumulated so many hours that, if they have one poor academic semester, then they will be on academic probation. The recommendation would be to provide more quality

information that presents the rewards and risks of dual enrollment as well as information emphasizing researching career and major.

Although information alone will not prevent students from earning bad grades, maybe students would make wiser choice in terms of course selection and course load. In addition, students would have the means to understand the competitiveness of graduate school as well as the preparation entailed to become a viable candidate. If planned acceleration were stressed instead of random acceleration, students would be encouraged to research careers and possible majors before accumulating abundant college hours. Hopefully, quality of information can assist students to make more appropriate decisions in regard to their education and futures.

The final recommendation would be to conduct more quality research on dual enrollment in order to validate the program. The dual enrollment program should involved more research that examines dual enrollment students' educational achievement after high school graduation in terms of their success in subsequent course work, grades in university, and time to degree. By studying dual enrollment extensively, participating colleges and universities can utilize the information to make improvements to the program. In addition, by having more research, the determination of the quality of the program can be made. Although these recommendations will not completely curtail the criticism, they should help to strengthen the outcome of the dual enrollment program. These recommendations addressed the main areas of criticism about the dual enrollment program.

### **Summary**

To answer the research questions, the researcher utilized the key participants' one-on-one interview comments and document analysis of published organizational

documents, marketing materials, and other secondary sources or published sources. After interviewing the key participants, the researcher e-mailed the participants the notes from the interview in order for the participants to have an opportunity to edit, modify, or clarify their comments. Then the researcher combined interviewees' comments and notes from the selected documents in a spreadsheet so that the comments could be sorted and categorized. Thus, the researcher applied the appropriate interviewees' comments and documents' notes to answer the eight research subquestions.

In addition, for Research Question 7 and Research Question 8, the researcher made use of the SWOT analysis and Porter's model. The researcher discovered that the main concerns of dual enrollment involved the lack of rigor at high school site, deficiency of standardization, inconsistency among state colleges, and students not understanding the cause and effect of participating in the program. One recommendation concerned the need to strengthen the level of rigor, and another recommendation would be to provide more quality information that presents the rewards and risks of dual enrollment as well as information emphasizing researching career and major. The final recommendation involved conducting more quality research on dual enrollment to validate the program.

## **Chapter 5: Discussion**

### **Introduction**

This section of the study details the viability of dual enrollment and its position in the acceleration mechanisms' market. Chapter 5 offers an overview of the qualitative research study, as well as summarizes the study's findings from one-on-one interviews and document analysis covered in Chapter 4. The summarization of the study's findings will offer insights into the similarities and the differences of acceleration mechanisms. In addition, the conclusions and implications for each of the eight research questions will be

discussed in order for the stakeholders to be presented a comprehensive narrative of the acceleration mechanisms industry, as well as the usefulness of the dual enrollment program.

Subsequently, the research study's limitations will be specified in detail in terms of the study's problems during the implementation of the study. The last section of the chapter will concentrate of the recommendations for the positioning of dual enrollment and the recommendations for further research study on dual enrollment and acceleration mechanisms as a whole. Finally, the chapter will conclude as the researcher summarizes the qualitative, cross-case study that examined the acceleration-mechanism industry and, more specifically, the positioning of dual enrollment.

### **Overview of the Applied Research Study**

The qualitative, cross-case research study examined the acceleration-mechanism industry and the positioning of dual enrollment as well as its vitality. The problem statement of the research study was to discover the viability of dual enrollment as a product versus other acceleration mechanisms for Florida high school students, the colleges that participated in the program, and the state of Florida given the accessibility of the other acceleration mechanisms. The purpose of the study was to discover if dual enrollment was viable when compared to the other acceleration mechanisms.

In terms of the literature review, marketing concepts were discussed, with emphasis being placed on Porter's model and SWOT analysis. In addition, acceleration mechanisms were defined and examined during this section of the research study. The next part of the literature review were the State of Nation and State of Florida that detailed the participation rates of acceleration mechanisms and addressed dual enrollment policies and funding in the section called State of Nation. In regard to the State of Florida,

participation rates of acceleration mechanisms in Florida were itemized as well as the changes in policies that affect acceleration mechanisms.

The next section addressed the research questions that were derived from the study's theoretical framework of SWOT analysis and Porter's model. The central question of the research study scrutinized the value of dual enrollment as a product in comparison to the other acceleration mechanisms from the viewpoint of the selected stakeholders such as Florida high school students, Florida colleges and universities, and the state of Florida. The study's eight research subquestions were as follows:

1. What are the stated educational objectives of acceleration mechanisms?
2. How are acceleration mechanisms positioned in the market?
3. What are the benefits of acceleration mechanisms to colleges and universities?
4. What are the benefits of acceleration mechanisms to high school students?
5. What are the benefits of acceleration mechanisms to the state of Florida?
6. What factors influence the selection process and program success of acceleration mechanisms?
7. How does dual enrollment compare to the other acceleration mechanisms?
8. What recommendations can be made to improve the competitive positioning of dual enrollment programs in Florida?

The methodology section detailed the aim of the study, participants, procedures, strategies of inquiry, data collection, school districts, instruments, research procedures, and data analysis. The aim of the study was to determine the value of dual enrollment in comparison to the other acceleration mechanisms as well as establishing the positioning

of dual enrollment. The research study's end product was a comprehensive analysis of the acceleration-mechanism industry. The participants of the study consisted of five groups: vendors of acceleration mechanisms, state education officials, district officials, high school representatives from the participating school district, and higher education SUSF, ICUF, and state college representatives. In regard to the strategies of inquiry, the research study's design was constructed as a qualitative, cross-case or multicase study because the research analyzed each acceleration mechanism individually and then compared the acceleration mechanisms to each other.

In terms of the research study's data collection and procedures, the researcher delineated the school districts and types of data collection as well as the instruments utilized in the procedure section. The three school districts were differentiated by examining the areas of the districts' population, median household income, per capita income, racial ethnicity, and educational attainment. The types of data collection applied in the study were one-on-one semistructured interviews and documents. The instruments developed were the one-on-one interview guide that the formative and summative panels assisted in developing the research questions for each group, the SWOT analysis evaluation, and the Porter's model.

In the research procedure section, the research study had five procedures detailed that directed the researcher in investigating the acceleration mechanisms' industry as well as the positioning of the dual enrollment in this industry. Procedure 1 consisted of requesting marketing materials from the vendors of acceleration mechanisms and the state colleges and community colleges. In Procedure 2, the researcher e-mailed letters to prospective participants from each of the research study's five groups. For Procedure 3, the researcher interviewed the participants who elected to partake in the research study.

Another portion of Procedure 3 was that the researcher e-mailed the research participants their respective interview notes in order for the participants to make any clarifications, edits, or modifications of the notes that would be utilized in the research study. Procedure 4 consisted of applying the information collected from marketing materials, secondary sources, and interviews to complete the SWOT analysis and the Porter's model. In Procedure 5, the researcher examined other states' policies to gather information from marketing materials and secondary documents in order to make recommendations for improving the position of dual enrollment.

In concluding the methodology section, the researcher detailed the data-analysis portion of the research study by describing the steps to be taken by the researcher. The data-analysis section entailed the following: audit trail, memos, field notes, member checking, data coding, categories, and triangulation. Memos and field notes were elements of forming the audit trail. Member checking or descriptive triangulation consisted of having the interviewees verify that their comments were represented accurately and to make changes if the comments need to be modified in order to be truthful of the interviewees' intent.

In terms of data managing, the research built a case-study database or spreadsheet in an effort to augment the study's reliability, and then the researcher determined the question that each line in the spreadsheet answered as the first part of the data code. Subsequently, the researcher labeled each line as the acceleration mechanism or acceleration mechanisms that applied to the information. The next step was to mark each line as a strength, weakness, opportunity, or threat if appropriate. Categories and themes emerged as similar information was grouped together in the category phase of the research study.

The last part of the methodology section involved the specification of the triangulation that was applied to the research study. The first triangulation method, data triangulation, detailed that the research study applied different sources, which were representatives of acceleration mechanisms, state education, colleges and universities, school districts, and high schools. The second triangulation method was theory triangulation that meant various theories were used and, in this research study, Porter's model and SWOT analysis with value-chain analysis being supplementary were applied as the theoretical framework of the study. The final triangulation method utilized was methodological triangulation, which meant that multiple sources were applied. This study used documents and interviews to satisfy the methodological triangulation.

### **Summary of the Findings**

The researcher interviewed 38 participants from the five groups and utilized marketing materials and secondary sources to answer the eight research questions. Each of the acceleration mechanisms had a specific educational objective that varied from the others. The participants had various views of acceleration mechanisms depending on their professional and personal experiences with acceleration mechanisms. As a result, several of the interviewees had a ranking of acceleration mechanisms based upon the perceptions of the rigor of the acceleration mechanisms. Most of the interviewees who had a ranking of acceleration mechanisms placed IB at the top and dual enrollment at the bottom, and AP and AICE were in the middle based upon the level of experience and opinion of the significance of the AICE program.

From the interviews and document analysis, the researcher determined that colleges and universities benefited from acceleration mechanisms by students participating in these programs. One of the main benefits revealed that students became

better prepared for the rigors of college. Another benefit of acceleration mechanisms related to the area of admissions because participating students were more attractive candidates for admission. As a result, some colleges and universities recruited these students. In addition, students who participated in acceleration mechanisms completed the transition from high school to college with more ease. Furthermore, these students with accelerated credit shortened their time to degree.

Students gained from their participation in acceleration mechanisms in the areas of college, high school, and self. In regard to college, students gained an advantage in the area of college admissions as well as being exposed to college environment or being introduced to college. Furthermore, partaking in acceleration mechanisms allowed students the possibility of earning college credit as well as assisting students with the college transition. In addition, a student's involvement in acceleration mechanisms facilitated shorter time to degree and a better chance of degree attainment.

From the high school perspective, participation in acceleration mechanisms enabled students to be grouped with like-minded students in terms of having comparable objectives and educational goals. Moreover, interviewees believed that the high schools' best teachers instructed students in acceleration mechanisms.

In terms of self, students in acceleration mechanisms experienced various benefits related to their individual self, from possibly realizing that they were not college ready to enrolling in courses that were connected to their future educational goals to promoting real world application of subject knowledge. Moreover, students experienced freedom and flexibility with their participation in acceleration mechanisms. Students felt increased self-esteem and pride by being successful in challenging themselves academically via their participation in these programs. In addition, students augmented their criticalthinking skills and communication skills.

The state of Florida profited from students participating in acceleration mechanisms because these programs permitted students to shorten their time to earning a bachelor's degree. Subsequently, these programs afforded the students an enhanced probability of earning a degree. Numerous factors affected the selection process and program success of acceleration mechanisms. These factors were related to location, convenience, school profile, and individual student characteristics, as well as program characteristics, money and funding incentives, recruitment, and college admissions.

The next part of the research study detailed the strengths and weaknesses of each acceleration mechanism in order to assist in the comparison of dual enrollment to the other acceleration mechanisms. Subsequently, the research discovered opportunities and threats that applied to all of the acceleration mechanisms as a whole. In regard to Porter's model, each force was studied to establish the pressure or impact that placed pressure on dual enrollment. Funding was associated with more than one force. As a result, funding significantly impacts dual enrollment directly or indirectly by either promoting dual enrollment or encouraging the other acceleration mechanisms.

The researcher discovered that the participants had concerns about the rigor and quality of dual enrollment as well as parents and students not understanding full the possible effects of participating in the dual enrollment program. As a result, the researcher developed recommendations that would address these issues. The first recommendation was to promote ongoing collaboration between high school site dual enrollment faculty and full-time college faculty in order to ensure that the high school site courses were being taught at a comparable level. The second recommendation entailed that colleges would provide more quality information that presented the rewards and risks

of dual enrollment as well as information emphasizing career and major. The final recommendation addressed the need to conduct more quality research on dual enrollment.

In the next section, the researcher discussed the conclusions and implications of the eight research questions separately. One-on-one interviewees and document analysis furnished the foundations from which the conclusions and implications were derived from for the research study. Each of the questions supplemented the establishment of the study's recommendation as well as augmented the understanding of the acceleration mechanisms' industry. In addition, the answering of the research questions as well as discussing the conclusions and implications aided in resolving the research study's central question of dual enrollment's vitality. The implications concerned high schools' personnel, dual enrollment personnel, and parents and students.

### **Conclusions and Implications for Research Question 1**

Research Question 1 examined the mission statements of each of the acceleration mechanisms: What are the stated educational objectives of acceleration mechanisms? The researcher answered the question by utilizing the vendor comments, accelerationmechanism websites, and research articles.

**Conclusions.** The conclusions drawn from the answer to Research Question 1 were that each acceleration mechanism's mission or educational objective is as unique and different as the acceleration mechanism represented. The educational objectives range from highly pragmatic with dual enrollment's objectives set forth by legislation to highly idealistic with IB's mission derived from the International Baccalaureate Organization to develop students into global citizens. The researcher believes AP to be more pragmatic because the College Board concentrates on more concrete objectives with college readiness and preparation as well as providing opportunity to underserved

students. Although AP provides courses globally and responds to market demands by changing the curriculum, the organization's intent does not promote internationalism in the manner that AICE and IB do.

The next acceleration mechanism above AP would be AICE, with the mission statement of the University of Cambridge International Examinations because AICE does not have its own. The intent of AICE was in the development of critical-thinking and problem-solving skills in their students with the scope being on an international education. Finally, IB has idealistic goals that hinge on the whole student developing international mindedness. An illustration of the mission statements' spectrum from pragmatic to idealistic can be found in the mission statement analysis model in Appendix Q.

**Implication.** Mission statements illustrate the significant objectives of organizations; however, educators and students probably do not realize the importance of the mission statement, which represents the goals and intentions of each acceleration mechanism. In addition, mission statements express the organization's identity as well as the direction setting, which can lead to the creation of a competitive advantage (Peyrefitte, 2012). In regard to IB, the mission statement defines its identity and purpose. The first part of the mission statement asserts the following: "to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect" (International Baccalaureate Organization, 2013b, para. 4).

Subsequently, IB's mission statement indicates the direction and strategy of the organization. Although the second part of the mission statement details the entities that IB will work with to provide rigorous international curriculum and assessments, the third

partition stated, “These programmes encourage students across the world to become active, compassionate, and lifelong learners who understand that other people, with their differences, can also be right” (International Baccalaureate Organization, 2013b, para. 6). In regard to IB, the mission statement establishes the desire to educate the whole person as well as to encourage the student to adapt to his or her surroundings (Duarte, 2013). As a result, the researcher believes that IB’s mission statement assists in creating a competitive advantage for the organization (Peyrefitte, 2012).

In regard to AICE, the mission statement focuses on providing a quality international education through the means of learner-based approaches with the desired end result being successful students that strived for excellence. The AICE does not have a mission specific to its program. The researcher used the mission of its affiliation with the division of Cambridge in terms of governing.

The College Board’s mission was applied because AP does not have its own mission specific to its program, and it is the governing body of AP. The College Board, a not-for-profit membership organization, offered additional services besides AP and its associated products. The purpose of AP courses have evolved from offering stronger curriculum for elite private school students to reduce the need for introductory college courses to providing encouragement to challenge all interested students academically in preparation for college.

Dual enrollment’s mission was taken from the state statutes that outlined the purpose of all acceleration mechanisms offered in the state. In regard to dual enrollment, the nature and structure influenced the direction and objectives of the program to a certain degree because no governing body exists for the program. In addition, in the state of Florida, all state colleges must offer the dual enrollment program and operate the program

based on the needs of their local school districts. From a national perspective, each state formed its own policies and operational procedures that influenced the participation of the program as well as its objectives. Yet, the three objectives applied were general enough to be pertinent to the dual enrollment program nationally.

The mission statements and objectives of acceleration mechanisms illustrated the differences among the programs as well as the directive assigned to the individual programs. The individuality of the acceleration mechanisms was exemplified from an examination of their educational objectives and missions. For example, IB's mission has an exacting nature that signaled the program's prescribed structured curriculum. In addition, the International Baccalaureate Organization was formed for the sole existence of being the governing body of IB, and the other acceleration mechanisms' governing bodies have additional educational objectives or services. In regard to dual enrollment's governing body, each college and university has a much broader mission and educational objectives than dual enrollment. The researcher believes that the entity affiliated with the individual acceleration mechanism impacted the idealistic or pragmatic nature of the acceleration mechanism.

## **Conclusions and Implications for Research Question 2**

Research Question 2 delved into the positioning of the acceleration mechanisms: How are acceleration mechanisms positioned in the market? The researcher answered the question by scrutinizing the interviewees' comments and research articles.

**Conclusion.** The main conclusion derived from the research about Research Question 2 was that a perceived ranking subsisted in the interviewees' opinions. To a certain degree, the ranking varied in terms of the placement of AICE and AP, which occurred mainly because of the newness of the AICE program as well as the small scope

of the program. The positioning of the acceleration mechanisms stemmed primarily from the interviewees' comments, which represented various educational entities associated with the public education in the state of Florida.

**Implication 1.** Understanding that the perceived positioning of acceleration mechanisms may not necessarily be negative because each acceleration mechanism has a role to play in strengthening the education available to high school students. To illustrate the positioning and the functioning role of acceleration mechanisms, the researcher characterized each acceleration mechanism as a member of medieval society. The researcher selected the medieval society because of the differing levels of members in society and the fact that each member had a specific role in society.

In regard to IB, the noble class signified the positioning of the program because of its esteemed reputation as well as being able to be exposed to the differing international perspectives. In addition, nobles view the world from a broader view and in idealistic terms. The AICE would be depicted as the scholars in the analogy because of their association with the well-regarded Cambridge University while not having the premier positioning in the upper class due to the infancy of the program.

Similar to IB, AICE as a scholar has a more global outlook obtained through its studies. In contrast to the noble, scholars have more flexibility in the role as scholar because nobles are regulated to specified norms and standards. Accordingly, the craftsman symbolizes AP because its positioning is typically not as eminent as IB and AICE. The craftsman is intent on learning the trade, which embodies AP because students have the flexibility to select courses to study much like the craftsman decides the trade.

Finally, the farmer portrays the role of dual enrollment in comparison to the other acceleration mechanisms. In medieval society, the farmer is at the lowest end of the

spectrum, although he or she provides for the needs of others. In comparison to the craftsman, the farmer is part of the working class and has the flexibility of the craftsman although the farmer is limited by the types of crops grown due to the land and region. In a like manner, a farmer depends on rain just as dual enrollment is reliant on financial funding from the state for its survival. As a consequence, the farmer relies on the success of the crop based on the quality of the land, the conditions of growing, the selection of crops to be planted, and the amount of rain. In terms of dual enrollment, the program varies depending on the college or university as well as the quality of instruction at these educational entities along with the student's course selection plus the commitment of funding by the state and the educational entity.

In terms of the interaction between the acceleration mechanisms, the purchasing of goods and services denotes this interaction. In regard to this analogy, a noble (i.e., IB) can purchase goods from the craftsman (i.e., AP) and farmer (i.e., dual enrollment), but the noble would have no interest in the services of the scholar (i.e., AICE). In terms of the scholar, the craftsman and the farmer both have goods that interest the scholar, depending on the needs. The craftsman sells goods to the noble, scholar, and farmer, but the craftsman may elect to purchase produce from the farmer. In summary, the farmer sells produce to the noble, scholar, and craftsman, while electing to buy from the craftsman when appropriate. An appropriate conclusion from the analogy is that the craftsman and farmer have the most interaction and flexibility, which appropriately reflects the programs of AP and dual enrollment.

**Implication 2.** The research study represented the examination of acceleration mechanisms in Florida, which has a prolific acceleration mechanisms industry in that the state supports a variety of programs. As a result, the findings of this research study reflect

the environment of acceleration mechanisms in the Florida, which differs from other states due to the state's policies, incentives, and promotion of acceleration mechanisms. For instance, two research studies (Daly, 2012; Hood, 2012) on IB in Virginia and Oklahoma presented a differing view of IB than the one posed in this study. The researchers discovered that people had no knowledge to limited knowledge of IB, but the interviewees' views of IB were that the program was premier in its positioning in comparison to the other acceleration mechanisms.

In addition, Chodl (2012) examined the impact of AP and IB programs in the area of college admissions with the emphasis on selective colleges and universities. Chodl's study affirmed this research study's findings in the fact that colleges and universities expected students to take the most academically challenging or rigorous curriculum available to them at their high school. Yet, the differing factors of the two studies were that in this research study colleges and universities had a preference of IB over AP, which was reflected in the positioning of acceleration mechanisms derived primarily by interviewees' comments. Although colleges and universities did not put students at a disadvantage if their high school did not have acceleration mechanisms, the colleges and universities had the expectation that the students were challenging themselves as much as possible given the high school's course offerings. As SUSF Representative 2 stated, "In fact, at the interviewee's university, almost all students have acceleration mechanisms, and it is rare to admit someone without acceleration mechanisms."

Chodl's (2012) findings indicated that high schools that did not offer acceleration mechanisms were not at a disadvantage. On the other hand, this study's findings depicted the notion that high schools utilized acceleration mechanisms to compete against other high schools, as well as to entice high-level students to their school. As a result, students

were attracted to high schools that offered acceleration mechanisms because these Florida high school students were interested in participating in acceleration mechanisms so they could be more competitive in college admissions.

**Implication 3.** Perceived rigor dictates positioning, which is determined by the standardization as well as the structure of the program. For instance, Flores (2012) researched the dual enrollment grades earned by students in math and English and their learning experiences in comparison between high school site dual enrollment and college dual enrollment. Flores's research confirmed this study's results in that the concerns with dual enrollment are related to its variability in eligibility requirements, state policies, and program rigor. These concerns can be compartmentalized as lack of standardization and structure because dual enrollment programs do not have a national governing body. As a result, dual enrollment is viewed as less rigorous than the other acceleration mechanisms.

In summary, a positioning of acceleration mechanisms endures due to various factors, but the primary factors concern rigor, standardization, and governing body. The importance of positioning is dependent on the stakeholders' needs. To illustrate the perceived positioning of acceleration mechanisms, perceptual maps were utilized to demonstrate the positioning in terms of standardization versus rigor and governing body versus rigor (see Appendix R).

### **Conclusions and Implications for Research Question 3**

Research Question 3 identified the advantages of acceleration mechanisms for colleges and universities. The researcher examined the interviewees' comments about the gains colleges and universities derived from students participating in acceleration mechanisms as well as secondary sources about the subject.

**Conclusion.** After the analyzing the comments and secondary sources about the value that acceleration mechanisms added to colleges and universities, the researcher concluded that the programs provided pertinent information to be applied in the college admissions process. A correlated benefit to college admissions was that acceleration mechanisms as a whole are noted to better prepare students for the demands of college, which is the rationale for factoring in participation and grades earned in acceleration mechanisms in the college admissions process. A supplementary advantage to colleges and universities was the easing of the high school to college transition. The final benefit of acceleration mechanisms is that students can shorten their time to degree, which increases the likelihood of earning a bachelor's degree.

**Implication.** Colleges are partial to acceleration mechanisms in the selection process of college admissions but are wary of college credit granted through the means of acceleration mechanisms. Based on the interviewees' comments, higher education representatives were concerned about students accelerating too fast as well as being correctly placed in courses. In the state of Florida, the state university system and state colleges are required to accept dual enrollment as well as award credit for successfully passing exam based acceleration mechanisms. Yet, most higher education representatives interviewed would raise the passing scores of exam-based acceleration mechanisms, or some participants would prefer not awarding college credit for all acceleration mechanisms. In fact, OPPAGA (2009c) discovered that students majoring in math and science often retook courses in which they were awarded credit via the means of acceleration mechanisms; however, these colleges and universities preferred acceleration mechanisms in the college admissions process.

Accordingly, Tarver (2010) confirmed the research findings of colleges' apprehension of awarding college credit based on performance in acceleration mechanisms. Tarver discovered that correct placement in courses was a primary concern, and several colleges and universities award credit only toward general education or elective credit. In fact, some colleges and universities are raising the exam score that students must earn to receive college credit (Liekar, 2012). Recently, Dartmouth has implemented a policy commencing with the class of 2018 (Bauerlein, 2013) that will no longer reward course credit for AP and IB because the institution wanted its students to completely take advantage of the Dartmouth experience (DiMaria, 2013). In fact, SUSF Representative 1 stated, "The awarding of college credit by acceleration mechanisms has taken away the 'XYZ' university degree and what it means to earn it from that 'XYZ' university." In summary, research and current policy by Dartmouth gives confirmation of the research study's findings of acceleration mechanisms favored in the aspect of admissions while being discerning in the awarding of college credit.

On the other hand, some researchers discovered instances of colleges and universities being more accepting of the awarding of college credit. In Anderson and Messner's (2010) research of dual enrollment in Wyoming, the findings were that dual enrollment students had minimal problems with transferring dual credit with some or all courses counting at the transfer college. In Pennsylvania, students were motivated to take AP courses for college admissions purposes, and the colleges in the study were found to be generous in the acceptance of college credit (Liekar, 2012).

Although the acceptance of college credit was prevalent, Liekar (2012) questioned whether the credit awarding policies would change from budget constraints that are elevated by the loss of revenue when awarding college credit because of AP exams. The

policies of the awarding of college credit through the means of acceleration mechanisms will have a direct effect on the benefit of shortening the time to degree, thus reducing the revenue generated to the institution by those students. Furthermore, many students earning AP credits use this advantage by reducing their respective course loads each semester, thus allowing them to apply more effort to fewer classes. As such, this strategy was revenue neutral to institutions.

#### **Conclusions and Implications for Research Question 4**

The researcher explored the advantages for students who decided to participate in acceleration mechanisms: What are the benefits of acceleration mechanisms to high school students? Interviewees' comments and secondary sources were applied to answer Research Question 4.

**Conclusions.** The researcher discovered that many benefits existed for students participating in acceleration mechanisms. Then the researcher grouped the benefits into three categories consisting of college, high school, and self. One of the prominent benefits of student participation in acceleration mechanisms was the distinction in the college admissions process. Other related college benefits included assisting students in the college transition to earn college credit, profiting financially in terms of scholarships and reduction of college tuition, and lessening time to degree to improve the chance of earning a bachelor's degree.

In the high school category, students acquired several advantages from their participation in acceleration mechanisms. A main advantage for students was the association with like-minded students who had the same academic goals and educational aspirations as well as receiving quality instruction from high school teachers. In addition, students become aware of their academic strengths and weaknesses and possibly the fact

that they may not be college ready academically. Subsequently, students gained from being able to enroll in a variety of courses related to their educational and career goals through the means of acceleration mechanisms. In addition, students in acceleration mechanisms can compare themselves to students nationally and globally.

In regard to self, the student experiences several benefits from their participation in acceleration mechanisms. College and universities actively recruit students who have excelled in acceleration mechanisms. In addition, students acquire a sense of higher responsibility by having to manage their time and keeping up with their rigorous course work. Students experience course work in their area of interest that can prepare them for their career and increase their access to college. Acceleration mechanisms augment students' critical thinking skills and communication skills. Some of the acceleration mechanisms engage students in hands-on learning and real-world application of subject matter. Finally, students are exposed to an international perspective.

**Implication.** For the majority of students, the predominant approach to demonstrate college preparedness and academic rigor is participating in acceleration mechanisms. Students gained several advantages for participating in acceleration mechanisms; however, students viewed their participation in acceleration mechanisms as necessary for them to be competitive in the college admissions process. Although colleges and universities will not view a student whose high school did not have acceleration mechanisms in an unfavorable light, the expectation of students who have the opportunity to participate in acceleration mechanisms is to test themselves academically in order to prepare for the rigors of college.

Chodl's (2012) research of the effect of IB and AP on the admissions decision at selective colleges and universities in the United States revealed that involvement

enhanced their acceptance into these colleges and universities; however, Chodl's research discovered that students can receive acceptance into these selective colleges and universities without participating in these programs. Chodl's research results agreed with this research study; however, in Florida, most high schools offer at least one acceleration mechanism so students have access to acceleration mechanisms. On the other hand, colleges and universities desire to students to achieve a balance of overloading acceleration mechanisms versus earning good grades.

Although colleges and universities evaluate students based on the offerings of their high schools, students' main method of demonstrating college readiness was to participate in acceleration mechanisms. In Hood's (2012) research, students perceived that the IB program readied them for the challenges of collegiate course work. Hood's research affirmed this research's results in that IB is considered to be a strong preparation for college. In regard to AP, Westphal's (2012) study examined the opinions of college students and their professors on AP's preparation of students for the academic and personal challenges of college. The students viewed AP as providing a solid foundation for the stresses of college.

Although Westphal's (2012) study did not research the reasons for students participating in AP, Westphal's study results did concur with this research study's results about AP providing college preparation. Yet, Westphal's study results did raise questions about the future quality of AP in delivering college preparation, and the probability that individual students' characteristics impacted their college success overrode AP's influence on students' collegiate achievement.

Anderson and Messner's (2010) research showed that students sought more rigorous college preparation by being enrolled in dual enrollment, and the main attraction

of being involved in dual enrollment was the opportunity to enroll in college courses while in high school. A discrepancy exists between Anderson and Messner's research and this research study because Anderson and Messner's research does not detail college admissions as an influencer of participation in dual enrollment, whereas this research study found college acceptance to be a factor.

### **Conclusions and Implications for Research Question 5**

The researcher delved into determining the advantages gained by the student from acceleration mechanisms by evaluating interviewees' comments and secondary sources.

What are the benefits of acceleration mechanisms to the state of Florida?

**Conclusion.** The researcher assessed that the gains derived from acceleration mechanisms correlate to finances. The benefits ascertained by the researcher entailed students improving their chances of degree attainment, as well as with the earning of college credit that involved students reducing their time to degree. Both of these benefits were connected either directly or indirectly to financial advantages to the state. Stanislas' (2011) research investigated the success of the AP and dual enrollment programs in students' degree attainment and concluded that a significant relationship between a student's participation in these programs and degree attainment. In addition, Stanislas' findings supported the claim that acceleration mechanisms, specifically AP and dual enrollment, enable students to earn a college degree. Stanislas' research confirmed this study's finding of the acceleration mechanisms' benefit to the state.

**Implication.** The state could change its view of the value of acceleration mechanisms and the benefits gained by the state in regard to acceleration mechanisms. If the state decided that the benefits of acceleration mechanisms did not outweigh the cost

of these programs, the landscape of acceleration mechanisms in the state of Florida would change. Various participants made comments about the impact of state funding on acceleration mechanisms, especially dual enrollment that relies on state funding and the support of state colleges. In spring of 2013, the Florida House of Representatives proposed a bill that would change the funding policies related to the dual enrollment by requesting that the funding follow the student, which means that money would be diverted to state colleges instead of going to school districts (Ordway, 2013).

Although state colleges were supportive of the bill due to the revenue loss of \$58 million that higher educational institutions experienced because of the dual enrollment program, school districts were concerned that this possible policy change would harm the dual enrollment program and impact high school's grades because the school districts could not afford the loss of funding. The bill stalled in the house, but state colleges declared that, if the state legislature does not offer more funding for the dual enrollment program, these institutions might have to restrict dual enrollment programs by either raising eligibility requirements or limiting the maximum number of courses that can be taken each year. At the close of the 2013 Legislative session, SB 1514 changed dual enrollment funding by requiring school districts to pay colleges the standard tuition rate for courses taken at the college campus and cost reimbursement for administrative costs for courses taken at the high school site. In addition, SB 1514 eliminated any seating limitations that a college could place on the dual enrollment program.

### **Conclusions and Implications for Research Question 6**

The researcher investigated the influences or reasons that students decided to participate in acceleration mechanisms as well as the aspects that affected the success of

these programs. What factors influence the selection process and program success of acceleration mechanisms?

**Conclusions.** The conclusions were drawn from the interviewees' comments and secondary sources. The factors of the selection process and program success of acceleration mechanisms were numerous and varied. The high school's characteristics, resources, and culture, along with the respective school district's resources, impacted the high school's offerings of acceleration-mechanism programs and the success of these programs. For instance, high schools need to have enough high-level students who desired rigorous curriculum in order to justify the allocations and funding to support AICE and IB programs that have additional requirements, such as accreditation.

Pretlow and Wathington (2013) examined the availability of dual enrollment as well as the high schools' features that affected the dual enrollment program being offered as part of its curriculum. They discovered that dual enrollment was accessible in rural areas and other disregard areas. In addition, suburban areas and affluent areas presented dual enrollment in a minimal amount. Pretlow and Wathington constructed assumptions based on their findings by theorizing the reason for less dual enrollment in these areas was due to the likelihood that these school districts were opting to offer AP and IB over dual enrollment. Additionally, the researchers disclosed that another resource challenge for high schools presenting acceleration mechanisms was the credentials of teachers, especially for dual enrollment due to its requirement that teachers have a master's degree in the subject area. Pretlow and Wathington's research and theories supported this research study's findings that a high school's resources and location influenced the acceleration mechanisms offered.

Another researcher, Liekar (2012), studied the AP program in Pennsylvania and found that smaller high schools had a limited number of AP courses in its curriculum, which concurred this research study's findings of the high school's resources affected the acceleration mechanisms provided to its students. Subsequently, a high school's resources impacted the student's decision to participate in acceleration mechanisms due to the need or desire to supplement their education by taking courses that were not offered by their high schools through the means of dual enrollment. Anderson and Messner's (2010) research validated this study's finding that an influence of involvement in dual enrollment resulted from a high school not having the course variety that the student desired.

Another area affecting students' selection of acceleration mechanisms involved people who persuaded a student's participation in acceleration mechanisms. Anderson and Messner (2010) confirmed this research study's finding of parents and friends influence a student's decision to enroll in acceleration mechanisms. Yet, Anderson and Messner's study extended the circle of influence on the student's decision to partake in acceleration mechanisms to include guidance counselors. This research study had minimal mention of guidance counselors, but the researcher believes that guidance counselors can impact students' desire to embrace the challenge of acceleration mechanisms.

Other factors impacting acceleration mechanisms' selection and success consisted of financial reasons and competitiveness. Anderson and Messner's (2010) findings concluded that students enrolled in dual enrollment because of the desire to take college courses free of charge. Anderson and Messner's research supported these research findings in that dual enrollment's benefit of offering college courses free appealed to

parents due to the economy and the financial aspect of the dual enrollment program. In regard to competitiveness, Liekar's (2012) study revealed that being an attractive candidate in college admissions drove Pennsylvania students to select AP courses. In addition, Hood's (2012) research of the IB diploma discovered that students commenced their participation in the program to prepare for college and to increase their likelihood of gaining acceptance into the college of their choice. These studies' findings reinforced the results of this research study in the area of factors that impacted the selection and program success of acceleration mechanisms.

**Implication.** Stakeholders need to understand the motivations and needs of students to find the best fit in terms of acceleration mechanisms. Each student has individual reasons for selecting an acceleration mechanism. The student's motivations and needs for the selection and the participation of needs can be illustrated by adapting Maslow's hierarchy of needs, which "help marketers understand how various products fit into the plans, goals, and lives of consumers" (Kotler, 1999, p. 172). By modifying Maslow's hierarchy of needs, the researcher presents the theory in a relevant manner to stakeholders in order to provide understanding on the selection of acceleration mechanisms (see Appendix S).

The adapted model for acceleration mechanisms follows Maslow's hierarchy of needs in terms of the bottom level being the most basic need and the higher level representing the idealistic need of a student. In the modified Maslow's hierarchy of needs, the foundation is the curriculum that, in terms of acceleration mechanisms, provides basic needs. All acceleration mechanisms deliver curriculum that offer the student's basic academic need in preparing for college. The next level of need addresses the environment, which affords students security in their desire to be academically

challenged. The first two levels are the most basic needs that students must have before desiring to achieve the next level. Maslow's theory at the theory level addresses social needs that are defined as sense of belonging and love (Kotler, 1999).

In regard to the third level of the adapted model of Maslow's theory of need, the focus is on belonging, which entails being associated with like-minded students that desire comparable academic challenges and goals as well as being surrounded by their friends. Subsequently, the fourth level is about a student's self-esteem, which is similar to Maslow's theory that defines the fourth level as esteem needs (Kotler, 1999). In the modified theory, the student's self-esteem needs can be elevated by their success in acceleration mechanisms in terms of earning grades, college credit, IB and AICE diplomas, and college acceptance. Depending on the students' self-esteem needs dictate the longing of gaining self-esteem through acceleration mechanisms and the degree it must be achieved. Also, status with the association of acceleration mechanisms raises the student's self-esteem. The greater the need for self-esteem impacts the student's choice of acceleration mechanism as well as the level of their involvement.

The highest level of the modified version of Maslow's theory of need concentrates on the student's self-actualization, which encompasses a student's obtainment of high-level critical-thinking abilities and reasoning skills, along with the promotion of morality, creativity, and problem solving. A person's perspective of the differing acceleration mechanisms will determine the attainability of the highest level of modified version of Maslow's theory of need.

In examining the educational objectives and missions of the acceleration mechanisms compared to the modified theory, IB and AICE seem to desire students reaching the highest level, and the student's involvement in AP would dictate the

attainment of this level. Dual enrollment's objectives are more utilitarian and pragmatic in nature, which results in the focus being placed more at the lower levels of the modified version of Maslow's theory of needs. Yet, due to the variability of the dual enrollment program and courses enrolled in, students make reach the higher levels of this model. By educators understanding the needs and desires of students as well as the manner that acceleration mechanisms can meet these needs, students can make better decisions in choosing the acceleration mechanism to participate in; however, students' selection may be situational due to the offerings available at their high school plus other factors.

### **Conclusions and Implications for Research Question 7**

The researcher examined the acceleration mechanisms in order to assess dual enrollment's value when evaluating the program against the other acceleration mechanisms: How does dual enrollment compare to the other acceleration mechanisms? The researcher utilized interviewees' comments and secondary sources to compile a SWOT model for each acceleration mechanisms, as well as forming a Porter's model that illustrates the forces that impact the state of dual enrollment.

**Conclusions.** In the SWOT analysis, each acceleration mechanism had strengths and weaknesses that differentiated it in the acceleration mechanism industry. Opportunities and threats applied to the acceleration mechanisms as a whole. As a result, the researcher viewed the strengths and weaknesses as being the focus of the discussion, especially in comparing the acceleration mechanisms (see Appendix T).

When contrasting dual enrollment with the other acceleration mechanisms, the predominant strength and weakness of dual enrollment linked back to the program's structure of the program. In terms of the program's strength, students learned the norms of succeeding in college, which is indicative of the programs' structure because the dual

enrollment courses are college courses. Results for Anderson and Messner's (2010) study assented to this research study's findings that dual enrollment assisted students in learning standards, expectations, and norms of college life. Accordingly, the significant weakness of dual enrollment rested in the areas of assessments and standardization, especially when compared to the other acceleration mechanisms that have strong governing bodies and curriculum assessments.

In regard to AP and IB, their strengths identified by the researcher were associated with their standardization and assessments; however, Chodl (2012) ascertained the strengths of both AP and IB were as tools for colleges and universities in the admissions process to project the likelihood of students' success in higher education. Yet, the researcher did not identify these same factors as strengths because in this study all acceleration mechanisms were discovered to be beneficial in the college admissions process. In contrast, Chodl's research revealed that AP's and IB's weaknesses related to academic advising in terms of encouraging students who may not be academically prepared for these programs. Similarly, the researcher discerned the weaknesses of both programs to be related to the expansion of the program in terms of them being able to sustain the quality that made the programs known.

Conversely, Flores and Gomez (2011) detailed the practices that once implemented can improve the success of AP courses to underrepresented students, which dispels this research study's finding to a certain degree if the practices mentioned by Flores and Gomez are applied. In terms of AICE, the scant research and information about the program constrains any supporting or contrasting material to be presented in order to substantiate this study's findings. Accordingly, the deficiency of research about AICE was noted as a main weakness of the program.

In terms of the Porter's model, suppliers and government exerted the most pressure on dual enrollment with the power of existing competitors coming in third. Suppliers and government are closely correlated with the main tie being funding. Both forces wield pressure on dual enrollment through financial incentives and funding. Changes in funding from the government or suppliers have an impact on the dual enrollment program as well as the other acceleration mechanisms. Schefers (2012) examined the relationship between high schools and their postsecondary partners in the dual enrollment program, and he discovered that the funding arrangements between the entities played a role in the offering of dual enrollment. Wintermeyer's (2012) research study consisted of the examination of dual enrollment and college persistence at a California community college and remarked that budget constraints would limit the growth of the program.

**Implication.** Dual enrollment possesses value for students, but the program needs to be targeted to those for whom it meets specific educational objectives and goals. Dual enrollment has a defined target market that consists of first-generation students, along with students who have specific degree and career plans and who desire to shorten their time to degree completion. Loftin (2012) and An (2013) discovered that dual enrollment can have positive results on first-generation college students. In addition, students interested in supplementing their high schools' offerings or desire to reduce their college cost would elect to participate in dual enrollment. Another student group that would be interested in dual enrollment could be students who are not engaged in high school and desire to move on to a college setting. In conclusion, students interested in the pragmatic and utilitarian nature of dual enrollment are best served by the program.

### **Conclusions and Implications for Research Question 8**

The researcher analyzed the acceleration mechanisms' industry as a whole with the emphasis on dual enrollment in terms of concluding its value and its status in the marketplace: What recommendations can be made to improve the competitive positioning of dual enrollment programs in Florida? The researcher utilized the SWOT analysis and the Porter's model to formulate recommendations to suggest for the enhancement of the dual enrollment program.

**Conclusion.** From the research study's findings, the researcher concluded that apprehensions about the dual enrollment program as a whole exist. The concerns about the dual enrollment program in Florida centered on the following issues: lack of rigor at high school site, deficiency of standardization, inconsistency among state colleges, and students not understanding the cause and effect of participating in the dual enrollment program.

Anderson and Messner's (2010) study explored the familiar concern about the level of rigor of dual enrollment at the high school site. Dual enrollment students in the study believed they increased their academic skills that prepared them for their collegiate educational goals. In addition, these students felt that they benefited from their dual enrollment experience and the location of the courses did not matter. The study validated the concern that the researcher discovered about the misgivings about the dual enrollment program, especially the rigor of dual enrollment at the high school site. In order to alleviate the criticism of the high school site dual enrollment, the researcher proposed the promotion of ongoing collaboration between high school site dual enrollment and fulltime faculty in order to ensure that the level or rigor is being achieved.

Similarly, a common criticism of the high school site dual enrollment concerned the environment being conducive to the college experience. Yet, Flores (2012) stated, “Dual credit programs are not about students acquiring the college experience, but about generating more college graduates” (p. 72). This view is not commonly held because most perceive the college experience as an essential part of a student’s development in earning a college degree.

The next recommendation would be to provide more quality information that presents the rewards and risks of dual enrollment as well as information emphasizing researching career and major. The educators associated with the dual enrollment program need to present the positive outcomes as well as the consequences of poor performance in the program. In addition, these educators should encourage planned acceleration instead of random acceleration in that dual enrollment students should be encouraged to find their area of interest as well as learning the prerequisites for their intended major.

Promoting planned acceleration instead of random acceleration would be supplementary to the value of dual enrollment in that it could assist students in shortening their time to degree, which would increase degree attainment. The final recommendation would be to conduct more quality research on dual enrollment in order to validate the program. Additional research, preferably in the form of quantitative data, is needed to determine the worth of the program to all stakeholders, especially during times of budget constraints.

**Implication.** Dual enrollment is a complex issue, and the program’s structure lends itself to criticism that, unless paradigm shifts occur in higher education, these criticisms will always exist, especially when compared to the other acceleration mechanisms. The main criticism of dual enrollment is the lack of standardization in terms

of curriculum and assessment. Higher education as a whole is not structured to utilize the same textbooks or apply the same assessments to judge the students' mastery of learning outcomes due to academic freedom.

Yet, the other acceleration mechanisms in this study each answer to one governing body and offer one curriculum. At best, dual enrollment programs can minimize curriculum by ensuring that all of their courses are being taught at college level by encouraging collaboration between high school dual enrollment faculty and college faculty. In addition, dual enrollment students' progress needs to be measured in subsequent courses upon entry into the state university system and state colleges. By being able to judge to quantify dual enrollment students' success after graduating high school, all stakeholders can better assess the dual enrollment program.

### **Limitations**

The study's problems of implementations correlate to the limitations of the research study. One issue in the study was the lack of participation by vendors, with only one acceleration-mechanism vendor opting to participate. Furthermore, another limitation existed in that the lack of information about AICE program due to insufficient academic research and articles both by Cambridge and independent sources. Another constraint of the study concerned the small sample size of ICUF and state college representatives. Another limitation was the time and setting of the study, such that many factors that existed during the study may not exist at a later time. Finally, the last limitation was associated with the possibility of the study's generalization being deficient due to the Florida's unique approach to acceleration mechanisms because of the state's funding and policies.

## **Recommendations**

The first recommendation is for all of the state colleges to become accredited through the National Alliance of Concurrent Enrollment Partnerships in order to have an external agency assess the rigors of the dual enrollment courses at the high school site. Although the state of Florida adopted the Partnership's standards, being accredited by the organization could provide some validation of the dual enrollment courses offered at the high school site, even though the criticism more than likely will remain due to the program's nature and structure of the program. Yet, the state colleges may not want to spend resources in obtaining Partnership accreditation because the state of Florida's dual enrollment policies and rules are based on those standards.

The second recommendation entails providing more information to students and parents about the rewards and risks of the dual enrollment program. In addition, the information would address students selecting a major and the prerequisites that are required for that major. Furthermore, the dual enrollment program would emphasize planned acceleration instead of random acceleration. As a result, more career and college counseling would need to be provided. Ideally, each high school should have a staff member whose sole job would be focusing on acceleration mechanisms and career and college research. Subsequently, although adding a staffing position for each high school would be cost prohibitive, the researcher believes this addition would assist students in their transition after high school.

Recommendations for further study include the examining the effect of students who earn high school diplomas and associate degrees in their future persistence of degree attainment and time to degree, as well as if the students regretted accelerating their college career. In terms of dual enrollment, further research would be to conduct

quantitative research to assess dual enrollment students' performance after high school graduation and in subsequent course work, as well as if these students are able to shorten time to degree.

For the other acceleration mechanisms, the researcher suggests studies on the AICE program because of the insufficient research on this particular acceleration mechanism. An evaluation of the program would be a good foundation for the research as well as having quantitative and qualitative research studies about the outcomes and benefits of the programs.

Studies that compare acceleration mechanisms would be beneficial in assisting stakeholders in ascertaining the proper choice or choices for their constituency. Limited numbers of studies exist that contrast acceleration mechanisms, and often only two acceleration mechanisms are assessed against each other.

## **Conclusions**

As a whole, the acceleration-mechanism industry is a very complex and dynamic industry that is influenced by government and funding, especially the dual enrollment program. The educational entities often have a different perspective and value of acceleration mechanisms. Although all of these entities would agree that acceleration mechanisms offer rigorous curriculum that prepares students for the transition to college, these entities desire to protect their interest and funding. As a result, these educational entities' interests and strategies can often be at odds with the perspectives of students and parents as taxpayers. Because of differing viewpoints, policies of acceleration mechanisms are often piecemeal strategies that do not provide a cohesive strategy for acceleration mechanisms.

The funding issue for dual enrollment will be a powerful force on the program.

Each educational sector wants funding for the program; however, if both parties are being equally funded, then the value of dual enrollment becomes even more in question from a financial perspective. These educational sectors are the suppliers of the dual enrollment program, but if neither entity has a true desire to offer the program, then the quality issues and more investment in the program are not likely to occur.

All four of the acceleration mechanisms offer benefits to students, which allow students to choose from a variety of rigorous curriculum. As long as the standard high school curriculum is perceived as not being rigorous enough as a college preparatory curriculum, then a need for acceleration mechanisms will continue to exist. No simple answers exist because of the environment of the acceleration-mechanism industry, as well as the dynamic nature of education as a whole. The preparation of high school students and their future educational and career goals affect the nation's competitiveness in the global market.

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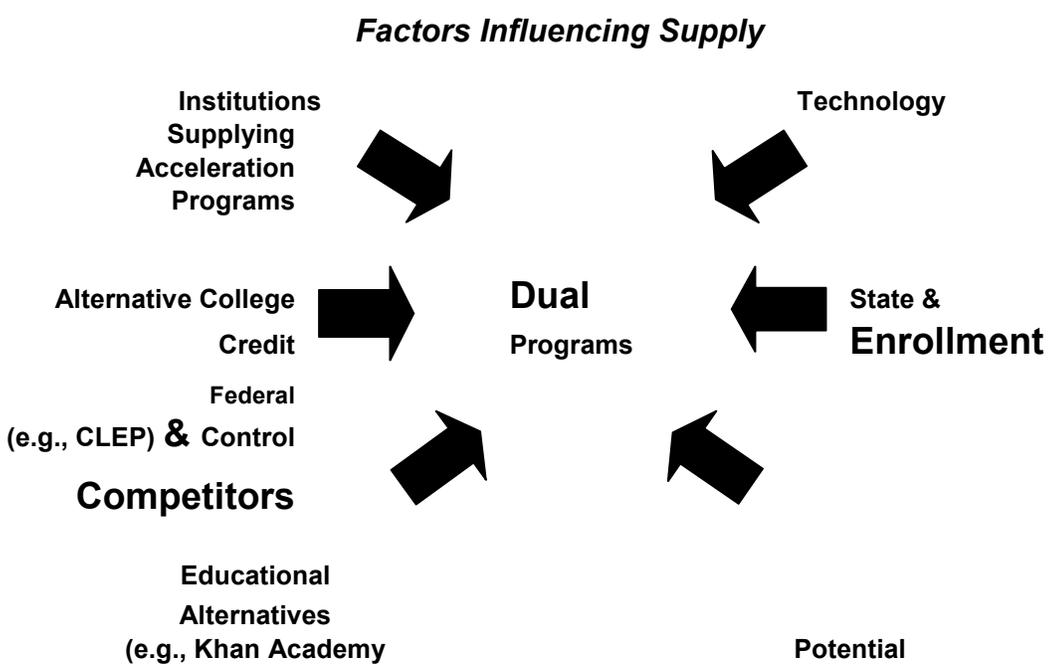
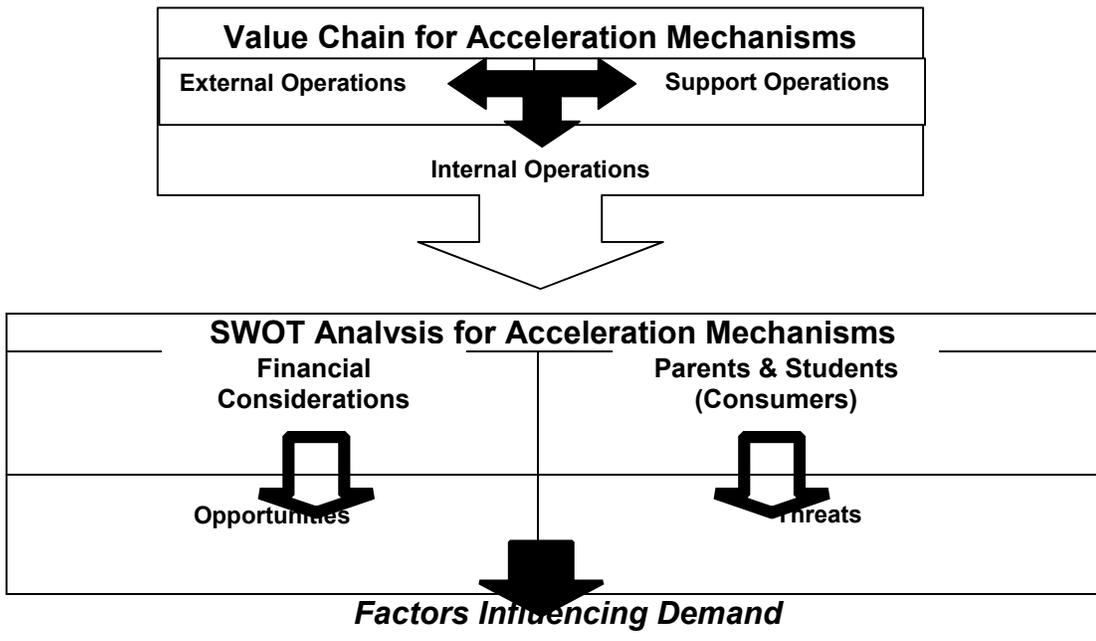
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Appendix A

Theoretical Framework for Dissertation

Theoretical Framework for Dissertation

The Theoretical Framework for Dissertation was developed to provide clarity and simplicity to the reader. This framework demonstrates the driving force of the study as well as the interaction of the marketing theories utilized in the study to develop recommendations.



**& MOOCs)**

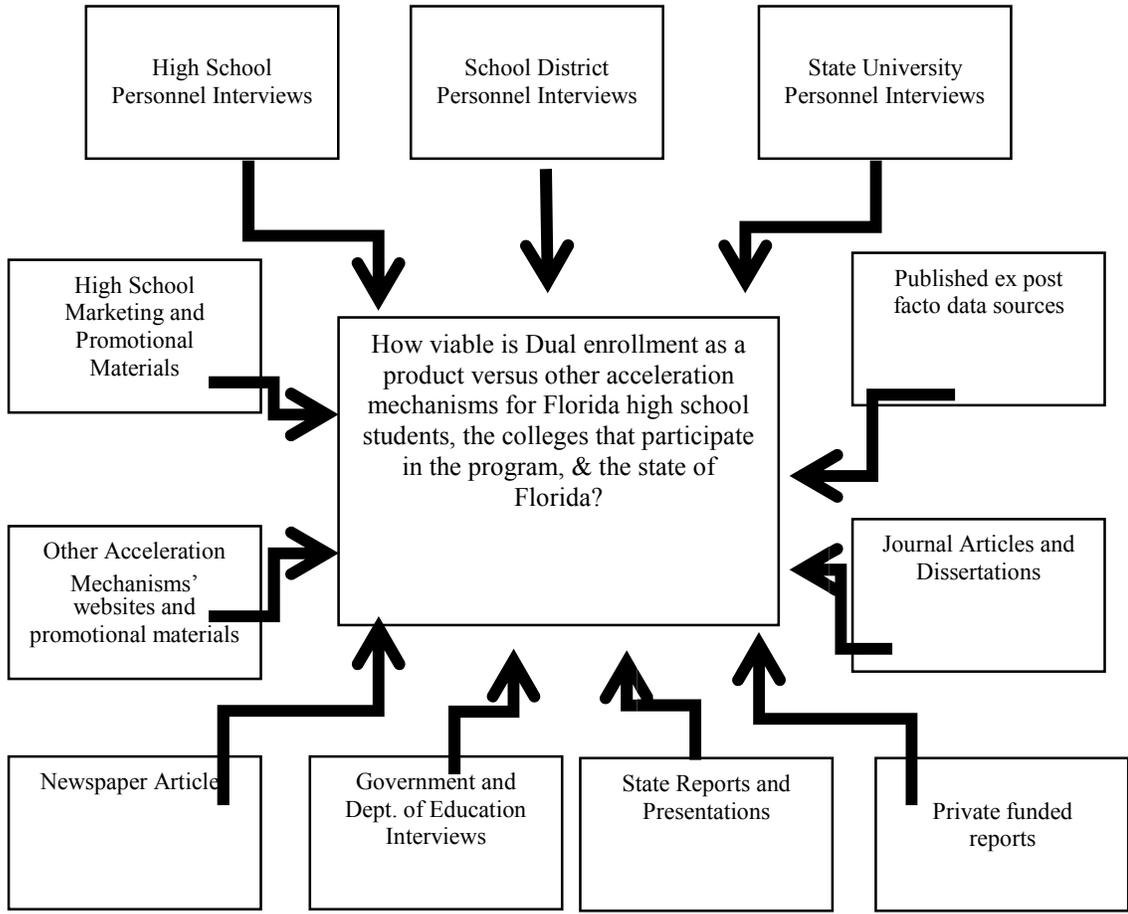
**Competitors**

Appendix B

Plan for Triangulated Data Collection

### Plan for Triangulated Data Collection

Because the study was qualitative, the researcher decided to increase the study's reliability and validity by demonstrating the use of data triangulation and methodological triangulation via the means of the below chart. Primarily, the chart attests to the application of various means of data applied in this research study. Secondary, the chart illustrates the usage of several sources within a methodological, which imparts different perspectives of the subject matter.



## Appendix C

### Formative and Summative Panels

## Formative and Summative Panels

The researcher supplied the information about formative and summative panels, in order to establish the reliability of the process in the development of interview questions for each of the groups. Each of the panel member's background information was provided to ascertain credibility. Subsequently, each panel member's suggestions were detailed so readers can come to a better understanding for the rationale concerning decision making.

### **Formative Panel**

The first panel member was selected because of his experience in marketing and knowledge of acceleration mechanisms. He has a Master's in Business Administration from a private university in Florida and an undergraduate degree in business from a state university in Florida. His business work experience consists of working in the marketing field and teaching business courses at the community college level. In addition, he participated in the dual enrollment program when he was in high school.

The second panel member was selected because of his work experience in secondary education and knowledge of acceleration mechanisms. He has managed the dual enrollment program for a school district for several years and worked as an advisor to high school students. As a result, he has worked extensively with school district personnel, high school guidance counselors, high school teachers, high school students, and parents. In addition, he has knowledge about college admissions in the state of Florida.

The third panel member was selected because of his advising and counseling experience at the community level in the state of Florida. Also, he has worked with school district personnel and high school guidance counselors in Florida for several years.

The first formative panel member suggested that the first sentence on the school representatives questions' interview guide be reword. The suggestion was to drop common characteristics and use traits.

The second formative panel member offered several suggestions on the interview guide. The first suggestion was on changing wording of the questions on the state education official. The second formative panel member suggested that common characteristics be substituted for typical student because typical student cannot be defined. Other change proposed for the state education official's questions was to change the phrasing of different acceleration mechanisms to each acceleration mechanisms. The panel member preferred advantages to benefits. The panel member advised changing the verbiage of question three and questions four on the district personnel interview guide. On question three, the wording was changed, and the word see was eliminated in favor of word perceptions. In addition, the member wanted the word perception used instead of the word view on the school representatives' questions interview guide. In regard to the college representatives interview guide. The final recommendation was to utilize a rating scale as a questionnaire, in order to improve the quality of the study.

The third formative panel member made several recommendations about the interview guide. In the introduction of the interview guide, the third member suggested defining the word positioning as well as wanting clarification of the competitive nature and value. In addition, the member proposed adding two questions to the vender portion of the interview guide: how do you think your product can be improved and how is the program's success measured. The panel member advised adding two questions to the district personnel guide: what are some challenges in implementing acceleration mechanisms and what issues have you encountered with acceleration mechanisms. In the area of school representatives, the member recommended changing question nine from how would you describe AP student, IB student, AICE student and dual enrollment student to what type of student would you discourage from AP, IB, AICE, and dual enrollment. The member made the suggestion because of the similarity to another question in this group.

### **Summative Panel**

The first member of the summative panel was selected because of his experience with acceleration mechanisms and his work experience at the high school level in one of the public school districts in Florida. The member has taught dual enrollment courses at the high school site, managed the dual enrollment program and academies at the public high school, served on IB accreditation team for a public high school, and has familiarity of the other acceleration programs. One of his experiences in managing the dual enrollment program was recruiting and promoting the program to high school students and parents. He worked with high school guidance counselors, high school administrators, and school district personnel when managing the dual enrollment program. In addition, his children participated in dual enrollment, IB, and AP in the state of Florida.

The second member of the summative panel was selected because of his thirty plus years of administrative experience in Florida higher education as well as overseeing an acceleration mechanism program. He has knowledge of the history of dual enrollment in the state of Florida. He worked with legislators and other senior administrators in the Florida community college system on promoting dual enrollment.

The third member of the summative panel is a marketing professor at the university in the southeastern United States. He was selected because of his marketing knowledge of the SWOT analysis and Porter's Five Forces.

The researcher visited with the first summative panel member about the interview questions as well as the models being used in the study. This member lacked familiarity with the Porter's Model and was not sure how it would be applied. In addition, the member questioned the use of the Porter's Model. Another point that the member made was about applying a cost/benefit analysis to the acceleration mechanisms. This panel member questioned about what the community college perspective would be, in regard to cost-benefit analysis. The last part of the feedback that this summative panel member gave was about the perception the various stakeholders had about the acceleration mechanisms.

The researcher discussed the study with the second summative panel member after he read the study, the interview guide, and examined the Porter's Model. The first comment that the second summative panel member made was questioning the exclusion of students and parents in the determination of the value of dual enrollment and other acceleration mechanisms. The second question raised was if the researcher planned on researching marketing for dual enrollment by examining the high school, the college, and the universities. The final question was how marketing will affect both the students and the parents.

Appendix D  
One-on-One Interview Guide

## One-on-One Interview Guide

The interview guides for each of the five groups were provided in order to deliver clarity to readers. The reason for having an individualized interview guide for each group is due to the differing nature of the groups. Interviewees were questioned based on their group affiliation.

### **I. Vendor**

Time of interview:

Date:

Position of interviewee:

1. What is your acceleration mechanism/program's original mission or purpose?
2. What is the program's current mission or purpose?
3. What is the program's target student population?
4. What new initiatives or programs have been implemented in the last five years?
5. What are your product's selling points?
6. How do you think your product can be improved?
7. How is the program's success measured?
8. What do you foresee as being future challenges?
9. Would you like to add anything else about your program to the discussion?
10. If you could change anything about your program, what would it be?

### **II. State Education Official**

Time of interview:

Date:

Position of interviewee:

1. What was the state of Florida's original purpose for promoting or establishing policies for acceleration mechanisms?
2. What is the state's current purpose for acceleration mechanisms?
3. What do you think is the future of acceleration mechanisms in the state of Florida?
4. How would you describe the differences between the acceleration mechanisms: AP, IB, AICE, and dual enrollment?
5. Why does the state of Florida promote four acceleration mechanisms?

6. How would you describe the common characteristics of students for each of the acceleration mechanisms?
7. What are the advantages of each of the acceleration mechanisms?
8. What are the disadvantages of each of the acceleration mechanisms?
9. How does the state measure success in each of the acceleration mechanisms?
10. Would you like to add anything else about acceleration mechanisms to the discussion?
  
11. If you could change anything about acceleration mechanisms, what would it be?

### **III. District Personnel**

Time of interview:

Date:

Position of interviewee:

1. Why do districts/high schools promote acceleration mechanisms?
2. Why do high schools choose to offer AP, IB, AICE, and dual enrollment?
3. What are your perceptions as the major differences between AP, IB, AICE, and dual enrollment?
4. How has participating in acceleration mechanisms affected the school district? (advantages/disadvantages)
5. What are some challenges in implementing acceleration mechanisms?
6. What issues have you encountered with acceleration mechanisms?
7. Would you like to add anything else about acceleration mechanisms to the discussion?
  
8. If you could change anything about acceleration mechanisms, what would it be?

#### **IV. School Representatives' Questions:**

Time of interview:

Date:

Position of interviewee:

1. What common characteristics or traits does a student possess who you would encourage to participate in AP, IB, AICE, or Dual enrollment?
2. Why do students participate in AP, IB, AICE, and dual enrollment?
3. What are your perceptions about accelerated mechanisms?
4. What are your perceptions about AP? IB? AICE? Dual enrollment?
5. How does AP, IB, AICE, or dual enrollment affect the school?
6. How does AP, IB, AICE, or dual enrollment affect the parents?
7. How does AP, IB, AICE, or dual enrollment affect the students?
8. How do you promote acceleration mechanisms? AP, IB, AICE, Dual enrollment?
9. What type of student would you discourage from AP, IB, AICE, Dual enrollment?
10. What attracts students to acceleration mechanisms? AP, IB, AICE, Dual enrollment?
11. What would you tell parents about acceleration mechanisms? AP, IB, AICE, Dual enrollment?
12. If you were a high school student what acceleration program(s) would you participate in and why?
13. Would you like to add anything else about acceleration mechanisms to the discussion?
14. If you could change anything about acceleration mechanisms, what would it be?

#### **V. College Representatives' Questions:**

Time of interview:

Date:

Position of interviewee:

1. How do colleges/universities use acceleration mechanisms?
2. What is a student profile for an AP student, IB student, AICE student, and dual enrollment student?
3. How have colleges and universities changed their use of acceleration mechanism?
4. What are your thoughts about acceleration mechanisms? AP? IB? AICE? Dual enrollment?
5. What do you see the future for acceleration mechanisms? AP? IB? AICE? Dual enrollment?
6. What would you tell students and parents about acceleration mechanisms? AP? IB? AICE? Dual enrollment?
7. Would you like to add anything else about acceleration mechanisms to the discussion?
8. If you could change anything about acceleration mechanisms, what would it be?

Appendix E

Analysis Evaluation Form for SWOT

### Analysis Evaluation Form for SWOT

The researcher selected the usage of the SWOT Analysis theory so that an environmental scanning can be conducted to determine the internal and external forces that would impact acceleration mechanisms. Individual SWOT Analysis Evaluation Form was completed for each of the acceleration mechanisms because of the study's cross-case design. All of the SWOT Analysis Evaluation Forms were identical in nature so that comparisons of the acceleration mechanisms can be made.

#### Advanced Placement

<b><u>Criteria Examples:</u></b>	<b><u>Strengths:</u></b>	<b><u>Weaknesses:</u></b>	<b><u>Criteria Examples:</u></b>
Competitive advantages Resources, assets, people Marketing – reach, distribution, and reputation  Financials: costs, funding Accreditations, qualifications, certifications known advantages			Lack of competitive strength Lack of resources, assets, people Marketing - reach, distribution and reputation Financials: costs, funding Accreditations: qualifications, certifications known vulnerabilities
<b><u>Criteria Examples:</u></b>	<b><u>Opportunities:</u></b>	<b><u>Threats:</u></b>	<b><u>Criteria Examples:</u></b>
Market developments Partnerships, agencies, distribution Industry or lifestyle trends New technologies, services, ideas Economy Legislative and political effects			Market developments Partnerships, agencies distribution Industry or lifestyle trends New technologies, services, ideas Economy Legislative and political effects

#### International Baccalaureate

<b><u>Criteria Examples:</u></b>	<b><u>Strengths:</u></b>	<b><u>Weaknesses:</u></b>	<b><u>Criteria Examples:</u></b>

<p>Competitive advantages Resources, assets, people Experience, knowledge, data Marketing – reach, distribution, and reputation</p> <p>Financials: cost, funding Accreditations, qualifications, certifications</p> <p>Known advantages</p>			<p>Lack of competitive strength Lack of resources, assets, people Marketing reach, distribution, and reputation Financials: cost, funding Accreditations, qualifications, certifications</p> <p>Known vulnerabilities</p>
<b><u>Criteria Examples:</u></b>	<b><u>Opportunities:</u></b>	<b><u>Threats:</u></b>	<b><u>Criteria Examples:</u></b>
<p>Market developments Partnerships, agencies, distribution Industry or lifestyle trends New technologies, services, ideas Economy Legislative and political effects</p>			<p>Market development Partnerships, agencies, distribution Industry or lifestyle trends New technologies, service, ideas Economy Legislative and political effects</p>

### Advanced International Certificate of Examination

<b><u>Criteria Examples:</u></b>	<b><u>Strengths:</u></b>	<b><u>Weaknesses:</u></b>	<b><u>Criteria Examples:</u></b>
<p>Competitive advantages Resources, assets, people Marketing reach, distribution, and reputation</p> <p>Financials: cost, funding Accreditations: qualifications, certifications Known advantages</p>			<p>Lack of competitive strength Lack of resources, assets, people Marketing reach, distribution, and reputation Financials: cost, funding Accreditations: qualifications, certifications Known vulnerabilities</p>

<b><u>Criteria Examples:</u></b>	<b><u>Opportunities:</u></b>	<b><u>Threats:</u></b>	<b><u>Criteria Examples:</u></b>
Market developments Partnerships, agencies, distribution Industry or lifestyle trends New technologies, services, ideas  Economy Legislative and political effects			Market developments Partnerships, agencies, distribution Industry or lifestyle trends New technologies, service, ideas Economy Legislative and political effects

### Dual Enrollment

<b><u>Criteria Examples:</u></b>	<b><u>Strengths:</u></b>	<b><u>Weaknesses:</u></b>	<b><u>Criteria Examples:</u></b>
Competitive advantages Resources, assets, people  Marketing – reach, distribution, reputation  Financials: cost, funding Accreditations, qualifications, certifications  Known advantages			Lack of competitive strength Lack of resources, assets, people Marketing reach, distribution, and reputation Financials: cost, funding Accreditations: qualifications, certifications Known vulnerabilities
<b><u>Criteria Examples:</u></b>	<b><u>Opportunities:</u></b>	<b><u>Threats:</u></b>	<b><u>Criteria Examples:</u></b>
Market developments Partnerships, agencies, distribution Industry or lifestyle trends New technologies, services, ideas Economy Legislative and political effects			Market developments Partnerships, agencies, distribution Industry or lifestyle trends New technologies, service, ideas Economy Legislative and political effects

## Appendix F

### Porter's Model: Industry Analysis of Acceleration Mechanisms

Porter’s Model: Industry Analysis of Acceleration Mechanisms

*Note.* Porter’s Models (1980, 2008) have been expanded to more specifically define the dual enrollment competitive marketplace and the dynamic interactions of both demand and supply factors. These interactions were used as the basis for this research, and this diagram represents how the research applied the various elements of Porter’s Models.

***Factors Influencing Demand***



***Factors Influencing Supply***



**Educational                      Alternatives                      Potential**

Appendix G

Triangulation Matrix for Value of Dual Enrollment Research Questions

### Triangulation Matrix for Value of Dual Enrollment Research Questions

The Triangulation Matrix for Value of Dual Enrollment Research Questions was developed as a means to provide evidence that the study utilized multiple sources to answer each research question. As a result, of the chart, the research increased the study's validity and reliability by demonstrating that methodological triangulation was applied in the study.

Research Question	Data Source #1	Data Source #2	Data Source #3
1. What are the stated educational objectives of acceleration mechanisms?	Market Researching Materials	Interviews	State Documents
2. How are acceleration mechanisms positioned in the marketplace?	Marketing Materials from other acceleration mechanisms	Interviews	Documents (articles, etc.)
3. What are the benefits of acceleration mechanisms to colleges and universities?	Interviews	Articles, Papers, Reports	State Reports
4. What are the benefits of acceleration mechanisms to high school students?	Interviews	Articles, Papers, Reports	State Reports
5. What are the benefits of acceleration mechanisms to the state of Florida?	Interviews	Articles, Papers, Reports	State Reports
6. What factors influence the selection process and program success of acceleration mechanisms?	Interviews	Articles, Papers, Reports	
7. How does dual enrollment compare to other acceleration mechanisms?	SWOT	Porter's Model	Interviews
8. What recommendations can be made to improve the competitive positioning of dual enrollment programs in Florida	SWOT	Porter's Model	Examine other states' policies

Appendix H  
Results of Interview Guide

## Results of Interview Guide

The researcher provided notes for each interview conducted to promote transparency in the study. Each interview guide has been presented in this section with the appropriate participants' response included under the respective question. These notes were supplied so readers can gain the different perspectives presented by each of the participants. In addition, the notes exhibited the comprehensiveness of the research study.

### Vendor Interview Guide

In regard to the vendor section, the one participant agreed to participate in the research study. Representatives from the other acceleration mechanisms were contacted, but elected not to participate in the research study.

1. What is your acceleration mechanism/program's original mission or purpose?

AP was established in 1955, pioneered by three prep schools and three universities for the purpose of allowing high school seniors the opportunity to demonstrate college level learning and earn college credit.

2. What is the program's current mission or purpose?

College Board continues to evolve and advance opportunities for students to learn and achieve college success. The evolution of College Board's AP curriculum framework has changed over the years, in response to the needs of students and college level expectations. AP students demonstrate their knowledge by taking an exam that is equivalent to the learning in college introductory courses. The expansion of AP throughout the US and other countries in the world has grown substantially, and continues to do so-in part because of the international credit portability.

The level of standard of AP is recognized in high schools globally as introduction to college course work. AP Exams are developed as reliable assessments, externally graded, and provide motivated students the opportunity to earn college credit through qualifying scores. A significant goal of the College Board is to increase access to traditionally underserved students to participate in AP. These efforts are supported by a College Board pathway to college readiness. From the higher education perspective, College Board wants to ensure continued support from higher education policy and research. In fact, College Board is leading the way toward a curriculum aligned with Higher Education expectations for 21st century knowledge and skills.

In fall 2012, AP is piloting a course that involves a partnership between Cambridge and AP to develop a capstone program. The course would extend over a 2-year timeframe with students taking the AP seminar in 11th grade and an AP

independent study during their senior year. For this 2-year pilot, Cambridge will be grading all of the final projects.

A concern from higher education relates to AP course specificity and the emerging needs for knowledge and skills for the 21st century workplace. AP curriculum revisions are more focused on advancing 21st century knowledge and skills through global perspectives, interdisciplinary and applied learning. This shift toward integrated education experiences and critical inquiry will require need to for relevant teacher training.

3. What is the program's target student population? Academically prepared and motivated students are the program's target student population. These students value the challenge of advanced academic learning and the potential to earn college credit.

4. What new initiatives or programs have been implemented in the last five years?

Some Exams have been discontinued. College Board is currently involved in the release of several curriculum revisions that address the 21st learning skills. The shift of the curriculum has been from emphasis on recall to the focus on understanding critical reasoning, critical inquiry, project-based work, and learning applications. The new curriculum is centered on inquiry-based practice. Another initiative is the AP | Cambridge Capstone pilot. In addition, College Board continues a high level of higher education involvement with the development of curriculum and exams, and Exam scoring. Involving higher education in data collection, data recording, and placement validity studies, (comparing) students who took the course to students who earned AP placement credit).

5. What are your product's selling points?

Focus is to continuously increase access to underserved populations. Efforts focus on helping high schools to encourage these populations to prepare for and participate in AP. College Board has a commitment to continuously evolving. In addition, College Board's Advanced Placement is a bridge or pathway to college course work. Everybody has a stake in every student pathway. Another selling point is that AP can help validate students' academic achievement eligibility for college admissions and financial scholarships. AP attracts..... College Board enables high school teachers to improve their instructional field, by offering AP teacher training and summer institutes. College Board prepares AP students to succeed in college and progress efficiently toward college completion. Longitudinal research data and research findings report AP students' performance and progress in college after succeeding in AP courses/exams in high school.

6. How do you think your product can be improved?

Making more AP courses available to rural and urban communities where there is limited AP opportunity. In addition, the interviewee suggests increasing opportunities to online AP course offerings. The interviewee would suggest Higher Education teacher preparation programs include or find ways to prepare AP teachers.

7. How is the program's success measured?

The program's success is measured by the extended access and the increase of access in rural and urban communities, student participation, and exam performance. In addition, the program's success is measured by placement validity research studies and the continued focus on 21st century learning.

8. What do you foresee as being future challenges?

The interviewee foresees competing resources as one of the main future challenges. There is a need to appreciate we have a Common purpose, and we need to limit the focus on self-preservation, because together, there are a number of resources and efforts that can be much more vigilant increasing access to underserved populations. Working together, we can shift from a culture of inertia. K-12 reform has outpaced higher education reform, through innovative steps toward the Common Core and readiness assessments, but the progressive reform for higher education operations have moved much more slowly.

Other future challenges to education are initiative fatigue and analysis paralysis. Higher education is being called to provide measures of accountability, due to the fact many students are not graduating and many of them are burdened with student loan debt. In terms of higher education, AP can be leveraged as a measure of accountability= tracking how well AP students are doing in terms of graduation within four to five years.

In addition, the interviewee sees a positive partnership between College Board and Cambridge.

Other partnerships with higher education can work collaboratively to remove barriers and access to improve completion rates. Education needs to be innovative.

9. Would you like to add anything else about your program to the discussion?

AP is a non-profit member organization. Income supports the mission of the organization, helps to provide exam subsidies, teacher training, and innovative educational reforms. We are a Big education community.....

10. If you could change anything about your program, what would it be?

The interviewee would expand online access and to integrate AP into teacher education.

## II. State Education Official Interview Guide

In terms of State Education Officials, three individuals from this sector agreed to participate in the research study. Each individual was arbitrarily assigned number for their identity to remain anonymous as well as to provide clarity.

1. What was the state of Florida's original purpose for promoting or establishing policies for acceleration mechanisms?

*State Education Official #1:*

The interviewee did not know the initial intent in offering acceleration mechanisms.

*State Education Official #2:*

The state of Florida's purpose for promoting policies for acceleration mechanisms is to give students opportunity to get college credit and to accelerate in college course work. Another purpose for the promotion of acceleration mechanisms is to save state money by moving students through high school and college faster. Students who move through college credit are likely to stay in college.

*State Education Official #3:*

The original purpose outlined in statute is to accelerate time for students to get through faster and expand depth and breadth of knowledge. Now, the focus is the shorten time to degree and get students done with their education faster. The expansion of depth and breadth is not the focus anymore, but it occurs as a natural outcome.

2. What is the state's current purpose for acceleration mechanisms?

*State Education Official #1:*

The state's current purpose for offering acceleration mechanisms is to provide better access to all students in terms of postsecondary education. Another purpose is to provide accelerated opportunity to work toward a postsecondary certificate or degree. An additional purpose is to give students the opportunity to enroll in college. The final purpose is to satisfy high school and postsecondary requirements at the same time.

*State Education Official #2:*

Same as original purpose because the original purpose still holds true as well as the guiding policies.

*State Education Official #3:*

The state's current purpose for acceleration mechanisms is for students to move through faster and for students not to get stuck or just treading water, due to the senior year of high school being useless. In addition, emphasis is moving students into workforce.

3. What do you think is the future of acceleration mechanisms in the state of Florida?

*State Education Official #1:*

All of the acceleration mechanisms have room to grow in terms of the number of students that they serve. State policies encourage the offering of all acceleration mechanisms. The expectation is that acceleration mechanisms will continue to grow in the future. Recent policies changes, especially to high school grade formula, encourage the growth of the dual enrollment program. In the future, some of the state policies may be tweaked or will be sharpened to take the students in a particular path from an advising standpoint. The reason for the continued grow is to allow acceleration mechanisms to permit students to progress with their collegiate goals.

*State Education Official #2:*

The interviewee stated that it is hard to say because the future has not happened. Yet, he does think that the use of acceleration mechanisms will increase rapidly because student usages has grown exponentially due to school grade, increase cost of education, economy, and parent's pressure. In addition, the economy will be a factor in acceleration mechanisms. The state is paying incentives for AP. The colleges cover the cost of dual enrollment. However, there has got to be some sort of nexus in the future. Some decisions have to be made about usage and what we are paying for.

*State Education Official #3:*

There is widespread support and continuation of acceleration mechanisms from legislators, students, and parents. Yet, there are concerns about acceleration mechanisms, due to the costs of the programs and always a way to save money. The cost is high when the students are unsuccessful. Acceleration mechanisms are alive and well priority for the state.

4. How would you describe the differences between the acceleration mechanisms: AP, IB, AICE, and dual enrollment?

*State Education Official #1:*

Dual enrollment is actual enrollment in a post-secondary course, and upon successful completion of the course, students earn college credit. All of the other acceleration mechanisms – AP, IB, and AICE – are secondary courses, and students are awarded college credit based upon their successful completion of a national standardized exam at the end of the course.

*State Education Official #2:*

AP, IB, and AICE course work have national or international exams, and credit is awarded by passage of exam.

Dual enrollment is not a secondary course, and credit is tied to completion of course.

CLEP is a wildcard because it is available for high school students and college students and cannot get high school credit for it.

*State Education Official #3:*

Several differences exist among the programs. In regard to experience, AICE/IB programs students apply to the program and get credentialed at the end. These programs are more rigorous. AP/IB/AICE are exam based, and students can high school credit without college credit. In dual enrollment, students earn high school credit and college credit if they successfully complete the program.

AP has no eligibility requirements. IB and AICE students attend a particular school with like-minded students. If dual enrollment is at the college, students are at the college campus and get a different feel.

AP students earn high school credit and can earn college credit if pass exam at the end of course. AP students are in classes that have students with similar goals. Students and parents do not always understand the consequences with their student's participation in acceleration mechanisms.

If an AP student earns an "A," then they receive high school credit. Yet, if a student has a "1" on their test score, then the student is not hurt. Dual enrollment is great, but if a student earns a "C" or "D" in the dual enrollment course, then they automatically have a "C" or "D" on their college transcript.

Advising is a huge issue because parents and students need to understand the risk. For example, a student may not end up at vet school with a "C" from a dual enrollment course. Different risks and benefits associated with acceleration mechanisms. Where the student is? What are the students' capabilities? What are the students' goals?

Acceleration mechanisms are funded differently. AP/IB/AICE receives incentive funds. In terms of dual enrollment, the college receives some funding. The big issue is that the dual enrollment students are filling up the colleges' classes. The state colleges waive tuition for dual enrollment students. Used to the state provided 75% of the tuition to the colleges. Now, the state provided 50% of the tuition to the colleges. No incentive funds for dual enrollment.

5. Why does the state of Florida promote four acceleration mechanisms?

*State Education Official #1:*

The intent of acceleration mechanisms is that these programs will progress students faster toward a college degree. These programs are a subsidy to postsecondary. In addition, these programs provide a benefit to the students by exposing them to a more rigorous curriculum and preparing them for the next level. These students allow student to leave high school with college credit. Finally, students who participate in acceleration mechanisms go to college being better prepared and have a better experience as well as having the ability to progress toward a degree quicker.

*State Education Official #2:*

Each acceleration mechanisms serve their own purposes. Dual enrollment students take college credit course work. Advanced placement is the largest acceleration mechanism in Florida. IB and AICE are good options. These programs are a focused couple year curriculum and highly rigorous. AICE is  $\frac{1}{4}$  or  $\frac{1}{3}$  the usage of IB. As a result, the state promotes various options for students.

*State Education Official #3:*

In general, first acceleration mechanisms promote challenging curriculum, increase rigor, and high-level high school courses that equate to college courses. Secondly, acceleration mechanisms are a good hook to get students into college. Then, these students can be successful in college and realize that they can do higher level work. Third, if students are successful in acceleration mechanisms, then the state gets a savings from acceleration mechanisms to get students through faster.

Dual enrollment is not double funded. Yet, dual enrollment is funded on both levels and is funded at base rate. Dual enrollment is good politically, in terms of students and parents because they do not have to pay for college student. The state funds students a year early so the state saves money. High schools are funded based on FTE that their students earn while on the college side, funded does not occur on an individual student level instead funding is based on a funding report. Dual enrollment is part of the FTE funding report. The waiving of tuition is a loss of money for college. A base rate is how the college is funded and the college reports FTE based on the amount of students. The college's funding is backward funding with the college receiving funds based on the previous' years amount of students. The waiving of tuition is a loss of money for college. Colleges are funded on a base rate and the colleges report FTE based on the amount of students. High schools report their FTE three – four times a year and are based on the number of students enrolled on that day. Colleges report how many students they had attending last year and is added to the FTE formula. College's money is distributed and no direct correlation exists. More FTE means less funding and the breakout to individual students is not easy to see. Colleges used to have a gain due to dual enrollment. Now, whole classes at the college are filled up with dual enrollment students and are a big chunk of the population of the college's student body. Yet, colleges are not funded at full amount.

6. How would you describe the common characteristics of students for each of the acceleration mechanisms?

*State Education Official #1:*

The main characteristic of students participating in acceleration mechanisms is that these students are accelerated students. Yet, dual enrollment is the only program with student eligibility criteria. The other acceleration mechanisms do not have the statutory eligibility requirements that dual enrollment has. The other programs' eligibility is determined by the school district and/or high school.

*State Education Official #2:*

The common sense approach to dual enrollment because it is the only acceleration mechanism to have statutory mandate.

Other acceleration mechanisms' eligibility is determined by the school districts' mandate requirements were to have better than B average GPA and on track to graduate.

*State Education Official #3:*

For the most part, students are highly motivated, willing to work hard, and basic academic skills. Maturity factor is important, and students may not have the same level of maturity. In regard to dual enrollment at the college site, dual enrollment students are self-motivated and need to be mature to handle the independence.

IB and AICE students dive into the program because they have to immerse themselves due to the fact that majority of their courses are program courses.

7. What are the advantages of each of the acceleration mechanisms?

*State Education Official #1:*

From a dual enrollment perspective, the biggest benefit is to the student who may or may not have a goal of postsecondary education. This program allows student to have the opportunity to enroll in college at no cost to get a taste of college. In addition, by participating in dual enrollment, these students can assess if they are ready for college and can form a connection to a college that will encourage their enrollment as a regular college student.

Dual enrollment benefits the college because it can potentially recruit dual enrollments to continue their education into degree programs at their institution. These dual enrollment students have the potential for success at the college. Another benefit for the college is that these students may receive target advising that will allow these students to be pulled through the degree in a more direct way than regular college students.

In regard to the state, dual enrollment give students an opportunity or better chance at attaining their college degree. These students are more targeted in their course taking when they get to college.

*State Education Official #2:*

The advantage of dual enrollment is that student is involved in an entire college course and is much more likely to pass course. The passage rate is pretty high.

The advantages of AP, IB, and AICE could be that the scheduling is all at high school. If going out-of-state, the college credit will be recognized, whereas dual enrollment may or may not be recognized.

When the student passes AP, IB, and AICE, the school and teachers get incentive funding. Part of the school grade is determined by the acceleration mechanisms.

*State Education Official #3:*

The programs have a lot of the same advantages. First, acceleration mechanisms allow experience as well as interesting challenging rigorous curriculum. Second, the state and parents save money if the students are successful in completing the dual enrollment course or passing the standardized exam. Finally, acceleration mechanisms look good for college admissions.

8. What are the disadvantages of each of the acceleration mechanisms?

*State Education Official #1:*

The disadvantage of dual enrollment is that a lot of things/policies are left to be worked out locally between high school/school district and college, especially in terms of the “logistics of delivery.” The main issues that are left to be work out are transportation and issues and cost of instructional materials. No explicit requirements in policy, especially about these two issues.

*State Education Official #2:*

Dual enrollment has no incentive funding associated with it. College is losing money by offering dual enrollment courses. AP, IB, and AICE are much more difficult to earn college credit.

*State Education Official #3:*

Not many disadvantages exist for acceleration mechanisms. AP, IB, and AICE have no risk. The main disadvantage to these programs is that the student may put into a lot of work and may not pass the test, which would give the student college credit. The students are tested one time to determine if they would be awarded college credit. As result, the disadvantage of the programs is time.

Dual enrollment affects college career because students begin their college GPA and transcript.

9. How does the state measure success in each of the acceleration mechanisms?

*State Education Official #1:*

In terms of dual enrollment, the state measures success in dual enrollment by looking at the participation rate, performance in current course (course grade), performance in subsequent course (subsequent course grade), and time and credit toward degree. Dual enrollment students are compared to regularly admitted college students.

*State Education Official #2:*

The state does not have benchmark of what success is, but the state does look at passage of exams and passage of course. They do not have “X” amount of students should be passing. Success is defined by student success not by a target. For example, what does a 40% passage rate mean?

*State Education Official #3:*

Success rate for students is how the state measures success for each of the acceleration mechanisms. IB has through the roof passage rate with 80% passage rate. AICE is newer. Dual enrollment has a passage rate of 85% - 95%. Dual enrollment students earn college credit if they pass with a “C” or better. There is no standard so people question if the courses are as rigorous.

AP exam does not have a good passage rate. There’s an argument on whether AP should have eligibility requirements for students, but the other side wants students to be exposed to rigorous curriculum. Yet, other people will say that too many lower students in an AP class would cause the course to be dumb down or catering to the lower quartile students.

10. Would you like to add anything else about acceleration mechanisms to the discussion?

*State Education Official #1:*

Colleges have had a long history of supporting dual enrollment programs and will continue to support the program. The change in the high school grade formula from being based solely on FCAT to partially on acceleration mechanisms has caused pressure for high schools to have dual enrollment courses at the high school site. Colleges will need to ensure the quality of instruction of these dual enrollment courses at the high school site as well as the student’s experience from participating in these courses. These dual enrollment courses at the high school site need to be at an equivalent level to college courses offered at the college, in terms of rigor and benefit to the student.

*State Education Official #2:*

In the future, we are heading into some real difficult conversations about cost, return of investment, and college credit for this acceleration. The current funding model is not a sustainable model even though acceleration mechanisms are a college credit generator. Dual enrollment is the obvious acceleration mechanism

that will be affected because the groups affiliated with the program are already discussing funding issues. People thought dual enrollment funding would be changed because the Council of Presidents were discussing changes to be made to dual enrollment.

In regard to AP, the state spends so much money for a 40% passage rate. Is this really the best use of money? Yet, AP will be hard to limit because everyone use it and is ripe with political hazards.

IB and AICE are small in numbers and are very successful.

*State Education Official #3:*

Acceleration mechanisms are a big push or big thing. Advising is becoming more crucial for students. Degrees are very prescriptive and taking courses needed for degree is becoming more important due to excess hours. If a student who has accelerated ends up with excess hours then not saving any money. The state and students save money when students take courses that apply to degree. If not taking courses that apply to degree, then not doing good for the state.

AP are you prepared for the next course. If students get certain scores on exam, success in subsequent courses becomes a concern or a measure of student success. Math and sciences fade away if a student is not continuously enrolled in these subjects. How does it impact students? Are you (students) prepared (know major, mature, and prerequisites)? Focus, good advising, and maturity are critical for students' success in acceleration mechanisms.

Planned acceleration is not random acceleration.

11. If you could change anything about acceleration mechanisms, what would it be?

*State Education Official #1:*

The interviewee would fully fund the program for both the high school and the college so that there is no question if either side had the capacity to deliver dual enrollment to all students who are eligible for the program. As a result, all eligible students would be able to participate in the dual enrollment program to the fullest degree that they desire.

*State Education Official #2:*

The interviewee would change the cost sharing arrangement so that the college would be more equitable in funding, which would help to remove barriers to college. In addition, each college is doing their own thing to limit dual enrollment so it would be nice if more standardization existed.

*State Education Official #3:*

The interviewee would like to be able to ensure people had all information needed before making decisions. In addition, the interviewee would widen breadth of curriculum “more get through fast”...and increase depth, which is hard during tight budget times. Also, the interviewee would recommend properly advising students about acceleration mechanisms and college. The interviewee would like to get parents to look beyond free. Students need to take participating in acceleration mechanisms more seriously and do well in these programs.

More upfront advising for students and parents about acceleration mechanisms need to occur. Ideally, more money needs to be spent on advising. The interviewee wishes that a specialized person who advises about college and acceleration mechanisms was at every high school. These people would help plan the student’s curriculum and help with career planning.

## District Personnel Interview Guide

Three district personnel from the respective three participating public school district were interviewed and arbitrarily assigned numbers. This practice was to protect the identity of the participants.

1. Why do districts/high schools promote acceleration mechanisms?

*District Official #1:*

School districts promote acceleration mechanisms, in order to give students an opportunity to challenge themselves and accelerate. In addition, school districts promote acceleration mechanisms so that parents can save money, especially when participating in the dual enrollment program.

*District Official #2:*

Students more advanced than others want challenging and rigorous courses to take. Another reason to promote acceleration mechanisms is the student's ability to earn college credit. Also, acceleration mechanisms are in state statute so districts are required to offer acceleration mechanisms. In addition, colleges want high school students to take college ready courses, and these courses need to be complimentary to ones offered on college campuses. The new grading formula promotes acceleration mechanisms because high schools are awarded bonus points for being college ready. Subsequently, school districts want to challenge their best and brightest so that their students can compete with students from other countries. The top tier universities look at some of the post-secondary work taken by high school students when they are trying to gain admittance into these universities. A chance for students to earn scholarships and various awards is another reason for the school districts and high schools to promote acceleration mechanisms.

*District Official #3:*

School districts/high schools promote acceleration mechanisms for a variety of reasons. First, the school districts want kids to do well so they set standards high. In addition, the district wants their students to show their best at all times. As a result, they look at the needs of their students and try to get students to be successful. The districts talk to middle school students about earning college credit in high school.

The interviewee's school district was awarded the Seaman's Award, which designates the most students to pass AP tests. In terms of dual enrollment, the district has a relationship with Santa Fe for 30 years and has 650 students in the program. In addition, the district has a successful IB and AICE programs.

School districts/high schools promote acceleration mechanisms for a variety of reasons. First, the school districts want kids to do well so they set standards high. In addition, the district wants their students to show their best at all times. As a

result, they look at the needs of their students and try to get students to be successful. The districts talk to middle school students about earning college credit in high school.

2. Why do high schools choose to offer AP, IB, AICE, and dual enrollment? *District Official #1:*

High schools choose to offer AP, IB, AICE, and dual enrollment because of school grade. Another important reason that high schools choose to offer acceleration mechanisms is for students to have the opportunity to be challenged instead of only being able to take a standard class where the students might be bored.

*District Official #2:*

High school budgets are such if you offer too many types of acceleration mechanisms then you spread yourself too thin, in terms of allocations. High school administration needs to assess the subjects and programs that their teachers are certified in as well as the clientele or students that comprise their high school. High school administrations have a hard time offering a lot of acceleration mechanism programs when students are at a low level. For acceleration programs, a high school has a smaller pool of students that qualify to participate in these programs. In addition, acceleration mechanisms have low class size/low enrollment. For example, an accelerated mechanism course may have 14-15 students and is not cost effective. If a teacher has three classes of 15 students each, then from a financial standpoint not maximum allocations, which would on average, serve 75 to 90 students instead of 45 students.

In regard to AICE, the program is gaining more momentum as colleges become much more aware of the program, which is relatively new since it is only 10-12 years old. AICE is a way that high schools use to keep their students at the respective high school, in order to slow down the brain drain.

In terms of the IB program, it is a high level program that is like a magnet program in many districts because most school districts only have one high school that offers the IB program. As a result, high school students are allowed to go to the high school if accepted into the IB program even if not zoned for the particular high school. If a school district has an IB program, then the other high schools have to find something to keep their high-level students at their home high schools.

Another factor in offering multiple acceleration mechanisms is teacher personnel. Does the high school administration have the personnel or teachers that will make the program successful? In addition, a high school has to determine if it can support more than one acceleration mechanism because it will have to have teacher buy-in. If the high school lacks teacher buy-in, then offering multiple acceleration programs will be next to impossible.

If a new school is formed, a school culture can be created as well as a need to have a high level program that is program based like AICE and IB. These programs offer high-level courses in different areas that are much more structured.

In summary, money, allocations, class size, and the number of high-level students at a high school are factors in determining the number of acceleration programs and the type of acceleration programs offered at a particular high school. Often, the latest and greatest theory is attractive to Americans in general, especially in the field of education. As a result, one could question if some new theory will replace acceleration mechanisms or alter the use of them.

*School District Official #3:*

High schools choose to offer AP, IB, AICE and dual enrollment because of the following reasons: a demand for courses and college credit opportunity exists, and competition between the high schools.

At 8th grade parents' evenings, top question is which high school is best academically. Win-win deal because 3 of 4 high schools offer any opportunity a student would want. Academically, top-notch high schools are available, but students need to decide if they have other interests that are as important as academics.

3. What are your perceptions as the major differences between AP, IB, AICE, and dual enrollment?

*School District Official #1:*

Promote dual enrollment over advanced placement because dual enrollment students are more likely to earn college credit. In regard to AP, students have to pass an exam to get college credit. Another difference between AP and dual enrollment is that sometimes AP teachers give busy work while dual enrollment teachers give indepth course work.

*School District Official #2:*

IB and AICE are more structured programs, in terms of their curriculum. On the other hand, AP and dual enrollment allow the students more freedom to choose their courses.

Another area of contrast is that IB and AICE have a more international flavor/perspective. IB has the same standards worldwide, and students or individual IB programs can be compared globally.

In terms of structure, IB has certain classes that students must take including a course entitled, "Theory of Knowledge." IB requires research, analysis, and synthesis of information. In addition, AICE requires research. Both programs focuses more on research and have classes that across several disciplines. In addition, both programs offer independent diploma that carries considerable

weight with colleges in terms of admissions. Every college knows about IB whereas colleges are still learning about AICE, but the program is gaining strength as colleges increase their familiarity with the program.

IB program offers rigor and is geared toward the highly motivated focused child that can handle 4-5 hours of work. These students learn at a young age what they want to do as a career. Also, these students do not worry about teenage issues because they have no problem putting a social life on the back burner. In addition, these students have strong study skills.

AP and Dual enrollment offer students more freedom because these programs allow students to choose a class. These two acceleration mechanisms do not have a set curriculum.

*School District Official #3:*

In the town of the district the perception of the acceleration mechanisms' is as follows from most rigorous/challenging to least rigorous/challenging: IB, AICE, AP, and dual enrollment. Different kids benefit from different programs (acceleration mechanisms). Acceleration mechanisms offer a full range of curriculum types. Dual enrollment is a classroom setting and daily assignments. Other acceleration mechanisms (IB, AICE, and AP) are focused on students earning college credit through standardized testing at the end of the course. In the interviewee's district, AICE students take both AICE exams and AP exams. If a student wants to get into an elite college, then the student should take IB and AICE.

4. How has participating in acceleration mechanisms affected the school district? (advantages/disadvantages)

*School District Official #1:*

A main advantage is seeing students graduate with AA degree at the same time as graduating from high school.

In terms of disadvantages, the school district needs more teachers that are credentialed to teach dual enrollment at high school as well as desiring more AP courses to be offered at high school.

*School District Official #2:*

One of the main advantages to offering acceleration mechanisms to the school district is being able to offer a curriculum that is challenging to high-level students. On another note, high schools are required by law to offer acceleration mechanisms. Each high school has to have at least 1 dual enrollment or one AP course held on their campus.

Another advantage to participating in acceleration mechanisms is that students have college scholarship opportunities when they are involved in these programs.

The disadvantage to offering acceleration mechanisms is the impact on allocations. These programs usually have low numbers in terms of class size. Fast approaching the time for these courses to be offered virtual because of their effect on allocations. One of the main courses that a solution needs to be found is AP Physics that has a class size average of 6 to 12 students. For example, if each high school offers one section and each section has 10 students per section, then a school district with seven high schools has seven sections of AP Physics and only serving 70 students. When does the number of students get too low that the course needs to be moved virtual? If the course is moved virtual, then the school district frees up 7 sections district wide, and each high school now has an additional allocation to use.

Allocations and increased state regulations affect the acceleration mechanisms. For example, with the implementation of end of course assessments in Algebra, high schools have to decrease their offerings in Math. High math sections do not require a class size, but lower math courses require class size.

How viable is it to offer acceleration mechanisms? A school district's tax base comes into play because most school districts have to monitor numbers and budget and may have to take back allocations while richer school districts look to their tax base. Most of the richer school districts are on the coastline and have higher property values that can generate higher taxes.

An example of allocations being reduced is when a high school had 4 sections of AP Literature, but the high school has to decrease the sections to two. As a result, a scheduling issue is caused because a student must choose between AP classes that are now offered at the same time. The student may decide to select a dual enrollment class due to the fact that his high school's master schedule will not allow him to take the two AP classes he desired.

*School District Official #3:*

The advantages of acceleration mechanisms to the school district are in every way, but the main advantages are the increase in each high school's grade and increase in funding. In addition, the district has a strong group of students taking acceleration mechanisms.

In terms of the disadvantages of acceleration mechanisms, one of the main disadvantages is the educational system trying to push kids that may not have the maturity to benefit from acceleration mechanisms. Some kids are doing just fine without acceleration mechanisms. In the interviewee's school district, above average IQ students do not qualify as gifted students. This above average student becomes to believe that they may not get as far in the long run. Is this child benefiting from the program (acceleration mechanisms)? Do we have data that supports this child's need to accelerate? As a result, this push to accelerate students requires educators to look at each child as an individual. The fallout of acceleration is that from elementary to middle school above average students

having to compete with truly high IQ students. Then, these above average students get to high school and are having a harder time competing. As a result, these above average students feel like a failure even though they are top 15% nationally.

5. What are some challenges in implementing acceleration mechanisms?

*School District Official #1:*

Two of the challenges in implementing acceleration mechanisms are scheduling and transportation. Scheduling presents a challenge because only one section of AP stats may be offered, but a student needs another course being offered at the same time as the AP stats. In regard to dual enrollment, students can have a difficult time fitting in dual enrollment courses with their high school courses. Transportation can cause difficulty for dual enrollment students because of having to drive or carpool to get to the college campus.

*School District Official #2:*

Two of the main challenges in implementing acceleration mechanisms are allocations and teacher certifications or credentials. In terms of teacher credentials, a principal could lose 6 to 7 teachers to retirement. If a principal loses an AP teacher, then the principal needs to assess the school's teachers to see if anyone has the teaching skills, intellect, work ethics, and training to replace the retiring teacher. The size of school comes into play because smaller schools are at disadvantage in terms of budget, credentialed teachers, and number of interested/qualified students.

*School District Official #3:*

One of the challenges is making people aware that the choices of acceleration mechanisms are likely to be of great benefit for child and can be multiple bests not one best choice of acceleration mechanisms. Another major challenge is the current educational environment and the funding of acceleration mechanisms. The key challenge is to provide funding for acceleration mechanisms without taking away for general education programs at the high school. Do not want to sacrifice these programs that serve the general high school population, in order to provide funding for acceleration programs that serve just a percentage of the high school population. If the state is not going to provide funding for state mandates, then the high schools and districts have to make tough choices and decisions to work within their budget and comply with these mandates. The district receives less money today than three years ago. Some costs to someone.

6. What issues have you encountered with acceleration mechanisms?

*School District Official #1:*

Same answer as the answer to the question about challenges. One new issue is that students want to take more acceleration courses than allowed. Another issue

is not being able to offer more acceleration mechanisms courses at high school site.

*School District Official #2:*

The main concerning issue is the rigor of the course or the level that the course is being taught. Are teachers instructing these acceleration mechanisms, especially dual enrollment at the high school site with college level rigor and standards? Are we teaching to rigor? An example is that 15 years ago a Standard English seems to be the same levels as an Honors English class. The standards have being lowered due to societal influences, especially parent involvement. Teachers feel pressure from their principal and parents of the students that they teach. As a result, grade inflation has become prevalent with a high percentage of A's and B's, which defies the Bell Curve. With grade inflation and lower standards, acceleration mechanisms are affected and the level of rigor comes into question. Yet, high education is also affected because these factors go uphill.

AP, IB, and AICE have accountability because of their end of course exam and standards plus these programs can be compared nationally and even globally. Dual enrollment does not have the same comparability, due to the structure of the program. Is dual enrollment rigorous enough? Are the courses not rigorous enough or does grade inflation cause the course to be perceived as not rigorous enough?

The definition of success may contribute to the level of rigor and grade inflation. If the success standard is 100% than schools at all levels have to aspire to a standard that is not possible. Maybe, the unintended consequences are grade inflation and lower standards of courses. If the success rate standard was adjusted to 70% -75%, would the level of rigor rise and the prevalence of grade inflation decline? What level of product is being produced? From a statistical standpoint, 100% success rate cannot be achieved.

Another issue is the virtual school and its influence on the offering of acceleration classes at the high school. If a high school loses a student for a period, then the high school loses money, which causes a loss in allocation.

*School District Official #3:*

Parents in their 40s to 60s are old school and do not understand college prep versus tech prep. These parents do not understand that their students need to be accelerating in both college and technical skills.

7. Would you like to add anything else about acceleration mechanisms to the discussion?

*School District Official #1:*

Believe in both acceleration mechanisms (AP and dual enrollment) and wish more students would acclimate themselves or utilize that acceleration mechanisms courses that are offered.

*School District Official #2:*

If the school districts have more money, then the high schools would have increased ability to offer additional acceleration mechanisms at each high school. As a result, the focus could be on having more acceleration mechanisms.

*School District Official #3:*

Broaden the definition of acceleration mechanisms and the focus to include career and technical. The need for accelerating technical skills and areas exists, in order for students to compete.

8. If you could change anything about acceleration mechanisms, what would it be?

*School District Official #1:*

The promotion and marketing of acceleration mechanisms should be improved so students have a better understanding of them. In addition, sometimes students are thrown into AP classes. Another area of change would be to add more consistency in the screening for the AP classes.

*School District Official #2:*

The major change would be the ability to ensure that classes are being taught at the appropriate level as well as not having to worry about the failure rate. Teachers experience pressure from principals if they fail too many students. Then, the teachers hear from parents if students are not passing the course or if students are not earning the grade that their parents think they should.

Another change would be to increase the resources spent on acceleration mechanisms. A common complaint is that the school district spends too much of their resources on the lower 25% and not enough on the higher 25%.

*School District Official #3:*

The interviewee would promote high standards for all students. For example, the interviewee visited a private school that had a 100% college placement. At this private school, if a student was not living up to their potential, then the school mandated that the student have additional minutes of instruction through various vehicles. In addition, the level of instructional support is often available to Title I and affluent schools, but often the instructional support does not support the forgotten middle; programs are not there to support these students and schools. If a student is seeking to achieve at a higher level, then the school/system should support the student's efforts by providing additional support. As a result, financial support should be made available to offer programs that support students who are striving to learn at a higher level and need additional tools/resources to be able to attain their goals.

## School Representatives Interview Guide

Representing the high school representatives, 13 personnel from high schools in the three public school districts were interviewed. These people were randomly assigned numbers, in order for them to remain anonymous as well as to provide clarity.

1. What common characteristics or traits does a student possess who you would encourage to participate in AP, IB, AICE, or Dual enrollment? *HS Representative #1:* The interviewee's views have changed about acceleration mechanisms. Previously, she thought that all students who met the eligibility requirements should be allowed to participate in acceleration mechanisms. Yet, more dual enrollment students are earning "D's" and "F's." Now, the interviewee stresses to parents and students not to take the decision to participate in acceleration mechanisms lightly, especially dual enrollment because dual enrollment grades are forever. In addition, she makes inquiries about all their activities because all things take up time (sports, baby-sitting, church, etc.). Factors that should be considered are the student's personality, time, and motivation for students thinking about participating in acceleration mechanisms. Other factors to consider is the student's commitment to time and to studying as well as being able to handle doing things that he or she has not previously had to do in previous courses.

*HS Representative #2:*

The common characteristic of students who participate in acceleration mechanisms are that they are motivated and willingness to go beyond the requirements. In addition, these students are anal retentive.

*HS Representative #3:*

The most important characteristic a student should possess who wants to participate in AP and dual enrollment is academic maturity, which is defined as time management, self-motivation, and desire to learn.

*HS Representative #4:*

The interviewee stated that a student who would be encouraged to participate in acceleration mechanisms would be to have a strong work ethic, intelligence and ambition, and competitive in terms of wanting to look better than the average students.

*HS Representative #5:*

The common characteristics or traits that a student needs to possess who would be encouraged to participate in acceleration mechanisms are as follows: disciplined, pays attention to deadlines, conscientious of assignments and homework, and high achieving on test scores.

The interviewee encourages students who have GPA and have not signed up for acceleration mechanisms, but may need push or encouragement to sign up. Yet, the student has to have the desire to participate in acceleration mechanisms. The interviewee pushes students who would be successful in dual enrollment. If a student wants to participate in dual enrollment, then the interviewee asks the students about what their GPA is, goals are, current course work, study habits, and social load and work activities.

*HS Representative #6:*

The interviewee sees similarity among the acceleration mechanisms. The common characteristics of a student who would be encouraged to participate in acceleration mechanisms are the following: initiative, good academic standing, motivated independent students who pay attention to detail.

*HS Representative #7:*

The characteristics could vary depending on the acceleration mechanisms. The most common characteristics are: motivated, independent thinkers, academically and intellectually inclined. The last characteristic is that they are hard workers. IB and AICE are structured while AP and dual enrollment have flexibility. In regard to AP and dual enrollment, the choice of strengths and being able to identify strength and flexibility are key points for students.

In IB and AICE, students have to be cross-curricular and the highest in academics. If students are not strong students across the curriculum, then students can suffer in the loss of eligibility.

*HS Representative #8:*

The interviewee processes 8th grade students and view their GPA, FCAT scores, and certain characteristics. In addition, the interviewee checks to see if the student has taken Algebra I in the 8th grade. A matrix is used to evaluate the students who are the very top students in the district. The students need to be academically successful in the middle school, 6th grade to 8th grade. The students are assessed based on what courses they have taken as well as the level of the courses. Yet, the students are evaluated based on the courses and levels at their individual middle school because different middle schools have different offerings.

*HS Representative #9:*

The interviewee would encourage students who have had strong success in area/subject in their previous course work. Dual enrollment is more concrete because it has a GPA and test scores requirements. The interviewee feels that the previous success in course work is more indicative than test scores because some students have high test scores and do not want to work.

*HS Representative #10:*

The interviewee would encourage highly motivated, mature, and smart students to participate in acceleration mechanisms.

In regard to AP, students gear courses toward their academic strengths. DE is the same as AP in that the student gears their course selections toward their academic strengths.

With AICE and IB, both programs are holistic, and students have to have wellrounded education.

In terms of IB, the IB students have 5 years of foreign language that they take in 4 years. They have to be fluent in a foreign language, which is demonstrated in their oral and verbal skills. An IB student earns 8 college credits from their IB foreign language courses. IB promotes international skills so they require a fluency in a foreign language. In regard to Math, the IB students don't have to be brilliant in math, but they have to be smart. IB students really put in the time. The average IB student earns between 25 – 45 college credits in IB.

IB students got to be mature at a young age. 40 IB students graduated with over a 3.75 GPA. All of the IB seniors got into the college of their choice. The top-top students are in AICE and IB and have an average GPA of 4.5 while dual enrollment students have a GPA range of 3.0 -4.0. The dual enrollment students are more scared and nervous, which results in them being unsure of themselves than an IB student. Dual enrollment students want to go toward their strength in terms of course selection.

*HS Representative #11:*

IB has the least amount of flexibility and has a prescribed curriculum. AICE is in between the acceleration mechanisms in terms of having more flexibility. With AICE, students can tailor curriculum toward their college major. AP is like a buffet because students can choose the courses that they take.

How much flexibility in terms of course work?

Magnet programs like IB and AICE attract like-minded students. As a result, the students are a part of a smaller community with the resources of a large high school.

IB and AICE students have a certain level of academic strength, commitment, willingness to work, previous academic work, and 90% or higher on standardized tests. These students are committed to the program because AICE and IB are all about the curriculum. As juniors, students have 4 – 6 college level courses. AICE is capped and is difficult to get in because students have to be straight A students with academic work of having all accelerated courses in middle school.

In addition, these students have 4's and 5's on the FCAT.

Dual enrollment is the easiest way out for students. Dual enrollment students are average workers and they are attracted to dual enrollment because they want the ultimate flexibility. These students usually have full-time or part-time jobs and are not the top students. With dual enrollment, students start their college transcript.

Dual enrollment can be dicey due to how university evaluates the student's course work. Due to the number of hours, grades, and course work taken, the university may encourage the student to finish their AA degree. Dual enrollment has no quality control. AA and high school diploma at the same time is not a good idea because an 18 year old would be in upper division course work in college with juniors and seniors.

State universities allow students to take 45 credit hours with the passage of IB, AP, and AICE exams. Colleges and universities want IB, AICE and AP. Data is real clear that IB, AICE, and AP students fare better in their first year of college than dual enrollment freshman.

*HS Representative #12:*

The common characteristics are love of learning, ability to work with others, and a pride and sense of accomplishment in meeting challenges.

*HS Representative #13:*

Self-motivated and not participating for parents, desire to learn, work ethic, and have to have academic ability are the characteristics of a student who would be encouraged to participate in the AICE program.

2. Why do students participate in AP, IB, AICE, and dual enrollment?

*HS Representative #1:*

Students choose AP because of prestige, and it is a heavily researched program. Students and universities know what is going on in these classes. Biggest reason of AP student participation is parent involvement. Sometimes, parents push kids even though their child is not ready. Although parents see their kids daily, sometimes they cannot accurately assess if their student is ready to participate in acceleration mechanism. In addition, students want to get ahead, in terms of the future educational and career goals. The problem is the pushing of students to accelerate because kids need to be kids. The interviewee is an opponent of acceleration mechanisms due to the concern of students being pushed too fast.

Another reason that students participate in an acceleration mechanism is because students are tired of high school and do not want to be at the high school. To these students, the socialization and the activities at the high school are not important to them. These students are highly intelligent.

An additional *reason* that some students want to participate in acceleration mechanisms is to challenge them and would be otherwise bored in a standard class.

*HS Representative #2:*

Students participate in acceleration mechanisms due to their parents' influence and involvement. These parents encourage their children to be a productive member of society. Basically, the parents send the message to their children that they are not going to take care of their needs forever. This type of parents talk

with their children about what they want to do when growing up. As a result, these parents help shape their child's path.

*HS Representative #3:*

Students participate in acceleration mechanisms because they want college credit. The high school promotes exposure to academic rigor through these acceleration mechanisms because the students will experience this rigor later in their education.

In regard to AP, students want the exposure to curriculum first, and they hope to earn college credit as another benefit.

*HS Representative #4:*

Students participate in acceleration mechanisms to be competitive in the college admissions (application) process. In addition, students want to be #1 or valedictorian of their class, and they have to have level 5 courses (courses weighted on a 5.0 scale) to attain this goal. Another reason for wanting to participate in acceleration mechanisms is to increase their high school GPAs. The last reason is that a few students believe by participating in acceleration mechanisms that they will shorten their time to degree.

*HS Representative #5:*

One reason that students participate in acceleration mechanisms is because they are bored in high school courses. Another reason is that students do not want to be around bad kids. In addition, students participate in acceleration mechanisms are because of their parents' encouragement. In regard to dual enrollment, students want to go to the college site so that they can experience college as well as have freedom.

*HS Representative #6:*

Students participate in acceleration mechanisms to better prepare themselves for future (college, state universities, etc.) and for the next step. In addition, students want the opportunity to earn college credit.

*HS Representative #7:*

Students participate in AP, IB, AICE, and dual enrollment for more of a challenge academically. Ultimately, the students participate in acceleration mechanisms because they want to be competitive in college admissions. In terms of AICE, the student is a different kind of student and parents. These students could be intrinsic. In general, the AICE student is the highest academic student and not as well rounded.

*HS Representative #8:*

The interviewee states that students participate in AICE because it challenges them and is a way to stand out in college admissions. In addition, students want to excel in school and maximize their learning.

*HS Representative #9:*

Students participate in acceleration mechanisms because of the potential for free college credit and rigor of courses.

*HS Representative #10:*

Students participate in acceleration mechanisms because they see advantages of having college credit and the savings of money.

The least favorite acceleration mechanisms of the interviewee are AP because she hates just 1 test to determine if a student gets credit or not.

IB assesses students in more than one way. In regard to IB Spanish, IB has an oral assessment, written test and actual test. IB English has an oral assessment, written paper, and test. IB Math has projects (internal assessment) and tests. At the minimum, IB has two different types of tests or assessments to determine a student's grade. In IB history, students write a paper on a topic of their choice and then they have other tests.

*HS Representative #11:*

Students participate in AP, IB, AICE, and dual enrollment so that they could be competitive for college. No choice, if you want to go to 4-year university.

*HS Representative #12:*

Students participate in acceleration mechanisms because they want to have a good high school transcript to get in a good college as well as desire to stay in magnet programs due to being in a homogeneous group. In addition, they like being challenged. Some students do it to earn college credit.

*HS Representative #13:*

Students participate in AICE because they are motivated and have goals. These students have planned out their future career and know what they want to do. In addition, these students are in AICE because they have pride and want to be in the top group with other smart kids. AICE provides a safe environment for students to be smart because in some environments these same students have been ridiculed in the past for being smart. Some students bloom because of safe environment.

3. What are your perceptions about accelerated mechanisms?

*HS Representative #1:*

The interviewee believes that acceleration mechanisms have a place and purpose as long as not abused by pushing kids to grow up too fast, especially the students

who are getting an AA degree by the time of high school graduation. These students miss out on part of the college experience because they are taking classes with college juniors instead of college freshman.

Acceleration is not for every student. Yet, even for students who participate in dual enrollment, the program can be negative for students. A dark side of acceleration mechanisms is that students graduate from high school and then get burned out when they get to university because they have taken so many acceleration mechanism courses, especially dual enrollment.

*HS Representative #2:*

My perceptions are that acceleration mechanisms are great for some individuals who are focused and academically inclined. These students want to do the extra work, and then they do the work. These students want to challenge themselves instead of just piddling through high school and earning a standard high school diploma.

*HS Representative #3:*

The interviewee's perception of acceleration mechanisms is good because it allows students to take off and be as great as they want to be. Yet, acceleration mechanisms do have a negative side because teachers are complaining more and more that students are not ready, in terms of academic maturity. The students do not understand the workload, but they are being exposed to the level of work it takes to be successful in college.

*HS Representative #4:*

Accelerated mechanisms are a way to lessen time to degree, but acceleration mechanisms are being utilized more to enrich high school curriculum. Teachers and guidance counselors feel pressure to increase numbers in AP and dual enrollment for the purpose of school grade. In addition, acceleration mechanisms are a way for schools to look good compared to other high schools. The mentality is how the high school looks compared to other high schools. 2% to 5% going AP. Teachers feel pressure to increase the number of students passing the AP course and the AP exam. As a result, the academic integrity of these courses is being affected.

*HS Representative #5:*

The interviewee likes acceleration mechanisms and is in favor of them. Not every student learns the same and matures differently. If the education system does not allow students to expand than their learning will be inhibited, which will result in the loss of the desire to learn.

*HS Representative #6:*

First of all, acceleration mechanisms are not for everybody. Then, too many students attempt acceleration mechanisms just because it is the thing to do without considering if they are capable or qualified. In addition, these students do not think about maturity issues that come with participating in acceleration mechanisms. Not every student has the maturity for acceleration mechanisms and sometimes students participate due to parental pressure. Often, students are not successful on AP exams.

*HS Representative #7:*

Acceleration mechanisms are a great idea. These programs teach and foster a lot of valuable characteristics, and it helps in the transitioning to college because they know expectations. Yet, the interviewee is worried about students feeling forced to take these courses due to SUS admissions.

*HS Representative #8:*

The right student has to find the right fit. The students need acceleration to keep them engaged in learning.

*HS Representative #9:*

The interviewee believes that for the appropriate student acceleration mechanisms are wonderful, but acceleration mechanisms are not right for every student. If a student does not perform well with dual enrollment, then the student could produce a negative permanent record. Yet, if a student does well with acceleration mechanisms, then they are wonderful. Not every student in high school is a college level student.

*HS Representative #10:*

The interviewee loves acceleration mechanisms, especially dual enrollment and IB. The kids should push themselves, but not to failure. Kids are far more prepared for university. Because of school grade, there has been a push for all students to participate in AP to give the students exposure. Yet, whatever works for the student.

In regard to IB, students have to do community service. Sometimes, IB students go to dual enrollment and leave IB because of the foreign language requirement. In freshman year, IB students have to take a year and half of foreign language. Then as sophomores, IB students take a year and half of foreign language. IB juniors take a year of foreign language. Finally, as seniors, IB students enroll in one year of foreign language.

*HS Representative #11:*

IB is the most prestigious diploma to seek. Yet, Cambridge has significantly cut into this IB portion, which is the reason that AICE is capped. Both IB and AICE students take AP courses and take the AP exams.

Dual enrollment is not the best option for top-notch students. Three years ago, the dual enrollment weight for SUS admissions was changed from .5 to 1.0, which is the same rate as IB, AICE, and AP. SUS admissions did not think that dual enrollment should be equally weighted with the other acceleration mechanisms.

If two-year state colleges were like Santa Fe, then dual enrollment would be okay, but not all state colleges are the same. The state's mission is to get students through as quickly as possible. It costs a lot of money to educate students.

*HS Representative #12:*

Not one size fits all. Acceleration mechanisms are good for some students and families. Parents are very involved. Some parents believe participation in acceleration mechanisms create undue pressure. Acceleration mechanisms offer healthy options for some families. These programs are high maintenance programs. Some kids should be getting challenged by acceleration mechanisms or else bored, disenchanted and disfranchised. If the student is board and disfranchised, then they will bad mouth the public schools. If the public schools do not serve the elite population, then the public schools will lose footing.

*HS Representative #13:*

Acceleration mechanisms serve a very important need. All students have needs, and these very bright students have a need.

4. What are your perceptions about AP? IB? AICE? Dual enrollment?

*HS Representative #1:*

Perception between AP and dual enrollment is the same in terms of the different ways to the same end.

Dual enrollment students want to go to the college campus to experience the freedom as well as having to learn to be their own advocate.

In terms of AP, students see a glimpse of how challenging curriculum can be and push their brains to the limit. These courses help shape the students as a person.

*HS Representative #2:*

AP and AICE have exams at the end of the year/course. As a result, students have the pressure of the test so some students choose dual enrollment because they do not want the stress of the end of course exams.

AICE and IB students have higher level of work because the students conduct research and have projects as well as added reading.

Dual enrollment courses cover the course material and do not have research as part of their normal curriculum.

*HS Representative #3:*

The interviewee has a favorably view of AP and Dual enrollment – thumbs up. Yet, he has strong reservations about IB, due to the aftermath of the program. This program places too much emphasis on academics, and the students have no chance for socialization. As a result, the IB students sacrifice a lot, especially in the area of socialization.

One of the strengths of the public school education in the United States is the socialization factor of students learning to get along with students from diverse backgrounds.

In regard to AICE, the interviewee’s experience was approximately five years ago. The program is a European model and was set-up for diplomats’ students. For students who want to challenge themselves, but socialization is important to them, then AICE program is a good option for these students. AICE curriculum is based on the European perspective.

Dual enrollment is more personalized, and students learn what to expect from college. Dual enrollment teachers have the freedom in terms of how they grade their students. In addition, dual enrollment does not have a test at the end. Yet, the drawback of dual enrollment is that the student’s grade is with them forever. On the other hand, a “C” or lower grade in an AP class is eventually erased while a bad grade in dual enrollment stays on the student’s transcript forever.

Another negative part of the dual enrollment program is that the teachers are not always good. An additional concern about the dual enrollment program is that students can earn an AA degree with their high school diploma, which makes the interviewee wonder if these students are not rushing through life too much.

In terms of AP, teachers and students can be compared on the national level. If a student is looking at competitive universities like Stanford, then the student needs to select AP over dual enrollment because AP will be recognized. Competitive schools outside of Florida prefer AP. Whereas, if a student is looking to attend a state university in the state of Florida, then the student can choose to participate in either AP or dual enrollment.

*HS Representative #4:*

AP is very accessible. Students are not penalized for not passing the AP exams. The students increase the GPA when taking AP classes, which are weighted the same as dual enrollment. Lowered AP standards may happen because of the push for more students to participate.

Dual enrollment has eligibility requirements of GPA and test scores. These eligibility requirements limit some students from participating in the program. Dual enrollment students increase their GPA when taking these courses because these courses are weighted on a 5.0 scale. Dual enrollment students are working on college courses. The program is good for students who are tired of high school drama. More dual enrollment courses are being offered at the high school site.

The downside of dual enrollment is that parents push students to participate. In addition, another negative is that the program can lessen the time in college. Often, parents and students do not understand the impact on the college transcript. The interviewee worried about students earning a “D” in dual enrollment course because these grades can impact the student’s future, especially when applying to graduate school.

The interviewee likes students to talk to students who have been in these programs. Students listen to other students more than they pay attention to what adults tell them about the programs.

*HS Representative #5:*

AP courses are good for the right student and the right purpose. If AP is good for the student depends on the student’s goal. For a student to be admitted into a major university, then AP is beneficial for the student, and if the student can get the college credit or close to earning college credit.

Yet, the interviewee does not put much weight into AP because of past experiences. For example, a teacher can copy the sample syllabus and put their name on it. Then, the teacher can submit it to College Board and get it approved. Apparently, College Board permits teachers to use their sample syllabus. On the other hand, the same teacher submitted a detailed syllabus with chapter and title and was denied two years in a row.

An AP teacher can teach anything they want. Standards were not followed. Yet, students still get the weighted GPA on their transcript and the strength of schedule remains as well as the course on their transcript.

Theoretically, AP is more rigorous than dual enrollment because the courses are the same across the nation and have a standardized test. Yet, how much do AP personnel really approve syllabus? In regard to UF, the interviewee would recommend AP class.

To determine the acceleration mechanisms that the student should participate in, the interviewee asks the student what their goals are, what is their major, what courses they want to take, and if the student does want to attend college out of state.

Typically, the interviewee suggests to students taking a combination of AP and dual enrollment. Yet, if the students' goal is to take some courses for transition purposes, participate in athletics at the next level, stay in-state or state at home to earn the AA degree, then the interviewee recommends that the student participate in dual enrollment.

The interviewee feels that dual enrollment is a great opportunity and wonderful way to introduce students to college. Dual enrollment courses still allows small class environment. Dual enrollment students are treated as an adult and college student. As a result, students must be responsible and learns what it takes to be successful in college. In addition, dual enrollment courses allow students to take courses that will challenge them at a higher academic level.

The dual enrollment program helps parents out financially because the program offers free college. Dual enrollment can set students up for success. The dual enrollment program exposes first generation college students to college and what is required to be successful in college. As a result, these students can end the cycle of poverty in their family.

*HS Representative #6:*

Rigors of courses are okay, but often the rigor depends on the class and the teacher. Dual enrollment might be a shade less rigorous than AICE and AP. In regard to AP, it is the toughest to pass in terms of the standardized exam, and the interviewee would rate AP as the most rigorous when comparing to AICE and DE. The interviewee perceives AICE to be over inflated and much too easy to past tests. The high school's best teachers are AP, AICE, and dual enrollment.

In terms of dual enrollment, the interviewee likes the fact that if the students passed the dual enrollment course, then the student will receive college credit. Dual enrollment is different from AICE and AP because the work in the class determines if the student earns college credit and not dependent on the test. Yet, the interviewee states that a student cannot go wrong with AP and AICE.

*HS Representative #7:*

IB and AICE are more structured and strict. AP and dual enrollment allow flexibility. In regard to IB and AICE, these programs attract higher level of students than AP and dual enrollment due to the nature of the program. IB and AICE students have to take courses across the board.

In terms of dual enrollment, as long as a student does well in the classroom, then the student can be successful in the course. The student cannot hide behind a test score in dual enrollment.

An AP student can pass the exam, but have a C in the course. For example, a student with a high SAT test score can pass an AP exam while not applying themselves in the class.

*HS Representative #8:*

The interviewee states that AICE is amazing, and the program at her school is building. The class of 2012 was its fourth graduating class, and we are going into our 9th year. AICE Spanish has been added along with a lot of subjects, including Global Perspectives. The demand is growing because students want to take higher level. In AICE, there is a lot more writing and detailed analysis, which includes writing, stating a case, and making a case. AICE prepares them to be writers and conduct analysis.

*HS Representative #9:*

Most students work better in a variety of acceleration mechanisms, teachers, courses, etc. In regard to IB, the curriculum is so regimented few students can perform in all subject areas. In addition, IB offers a small variety in teachers and teaching styles. Students have to follow a certain path, and there is no flexibility or room for exploration.

Dual enrollment and AP offer much more flexibility for students because they can take courses of strength. In terms of IB and AP, students get credit if they pass the test then the awarding of credit depends on the university. Dual enrollment is more at face value because more of a sure thing so students can gauge if going to get college credit.

*HS Representative #10:*

All IB students take the following AP courses: European History (9th grade), US History (10th), and AP Literature (11th). Students take these courses to be exposed to college rigor.

As whole, AP is rigorous, and it is only for the top 20% of student body.

In regard to IB, the program has different assessments and is fairer. IB students graduate with a major sense of accomplishment.

AICE does not have the recognition as IB and AP. It is a comprehensive program, but it is not equal to IB.

IBO requires \$10,000 each year from the high school. In addition, training is expensive, and another cost is the change to curriculum. The accreditation process for IB is a year or two and has to be pre-IB.

AICE has a very different accreditation process. AICE has a good lobbyist. The interviewee likes AICE better than AP.

Dual enrollment is fabulous for mature students. Negative part of dual enrollment is that the parents want control and expect high school personnel to know attendance, etc. Yet, high school personnel have no control at college.

*HS Representative #11:*

The interviewee stated that it is nice for students to have options. AICE, IB, and AP have more similarities than different. Many top students are drawn to magnet schools. The decision factors of choosing between AP, AICE, and IB are due to the school climate and extracurricular activities.

All three programs are strong programs and the differences between the programs lie in the high school's strengths. Buchholz HS is strong in Math competitions and are a 7 time national champion in Math competitions. For example, students are interested in Math competitions then they should choose Buchholz HS. Gainesville HS is known for their Marching band. Academics are so strong at each high school.

*HS Representative #12:*

AP versus IB, the interview stresses the contrast between ap.com and ib.org. The dotcom of AP reflects the economic piece of AP. The AP organization is money making, generating revenue driven. AP is more established, and colleges recognize it. AP is entrenched and here to stay. Not all colleges will give college credit for AP.

IB started by university professors in Europe during the 1960's because at that time middle school students were splintered off into university bound students versus not university bound students. Yet, high school students who were not university-bound students come to university, and these students were not ready for university, which resulted in a high dropout rate of approximately 60%. As a result, the university professors wanted to examine way the students' accountability measures. They saw a big disconnect between high school and college.

IB never intended to earn college standing. The evolution of IB caused successful passing of exams to earn college credit. IB students are independent learners and group learners. IB curriculum goes beyond chapter textbooks and chapter tests. Instead IB encourages long-range research as well as assist student in seeing the huge scope of learning.

Dual enrollment provides students with college courses and textbooks paid for. The interview loves dual enrollment because it provides students with free tuition and textbooks for students. Yet, students need to be cautioned that they are starting their college GPA. In Florida, the legislature fully funds all acceleration mechanisms. The interviewee would encourage more participation in acceleration mechanisms in the public schools.

*HS Representative #13:*

AICE students take AP courses as elective. Each program has its strengths. Students' learning styles may make certain acceleration mechanisms a better fit for some students. AICE is more flexible than IB, and AICE allows students to participate in more extracurricular. In addition, AICE promotes application, analysis, and valuation. As a result, AICE student can take any information and tear it apart.

5. How does AP, IB, AICE, or dual enrollment affect the school?

*HS Representative #1:*

Acceleration mechanisms help the school grade increase. Students who have never travelled an hour away through AP and DE have doors that open up for them. The students receive experiences through these acceleration mechanisms that they would not have in regular courses or at home.

*HS Representative #2:*

Principal loves dual enrollment because students get college credit without high school having to pay for the AP and AICE exams. All about the money and cutting the budget where you can are the attitudes that high school administrators have to have.

*HS Representative #3:*

The positive effect of acceleration mechanisms is on the families and communities who want to hear about advanced programs. In addition, the high school grades are now 50% on other factors that include participation and performance in acceleration mechanisms. Last year, if a student passed an AP exam, then the school earned 1.2 points, and if a student earned a grade of "C" or better, then the school earned 1.2 points. Yet, the high school grade formula has changed, and now high schools do not earn any more points for students' participation in acceleration mechanisms. The high schools only earn points for students successfully passing acceleration mechanisms' standardized exams or successfully passing dual enrollment courses.

Dual enrollment has a very high passing rate: approximately 98%. As a result, high school administrators are pushing dual enrollment more because of the impact the program can have or has on the high school's grade. Yet, students must have an unweighted 3.0 GPA to participate in dual enrollment.

*HS Representative #4:*

Acceleration mechanisms help with high school grade and enrich high school curriculum. In addition, the number of AP and dual enrollment courses improves the high school's reputation.

*HS Representative #5:*

Acceleration mechanisms affect the school in terms of high school grade because when students are successful in dual enrollment and AP the high school get points and funding for these students. Dual enrollment program meets student's academic needs when high school does not have the allocation to offer courses, especially the range of courses that dual enrollment can.

*HS Representative #6:*

Acceleration mechanisms affect the school main in the area of school grade because the high school earns quality points for students taking accelerated classes and completion points when students pass the AP or AICE exams and dual enrollment courses. Dual enrollment gets higher points because more students pass the dual enrollment courses than the standardized exams of AP and AICE. Yet, acceleration points receive higher points than standard and honors courses.

Each year, Newsweek magazine does a survey that ranks the top high schools in the nation. The number of AP courses and AICE courses along with the success rate in these courses help the high school's rank. This past year, the interviewee's high school placed in the top 50 high schools ranking. Also, SAT and ACT test scores of the high school's students are factored into the ranking.

*HS Representative #7:*

Acceleration mechanisms are factored into the school grade. In addition, having acceleration mechanisms gives the high school bragging rights.

*HS Representative #8:*

The school was losing a lot of high achieving students, and the AICE program allows it to keep these students as well as attract students from other schools. The AICE program helps the school in the following areas: academics, athletics, and other activities programs. In addition, the program helps with test scores and other things from the state. The school's AICE program is not a school within a school and was purposely built that way.

The school's AICE program is integrated within the school so in the application process students are selected who would work well at the high school.

*HS Representative #9:*

Acceleration mechanisms affect the school's grade and potential more bonus money.

*HS Representative #10:*

With AP and IB, the high school gets money and funding. IB students last year in FTE earned \$170,000. This money is how the high school runs the program. IB exams cost \$40,000, and the rent of the facility costs \$5,000 - \$6,000. Other costs are teacher training and textbooks. IB is not taking money from other programs in school. When IB students pass test and when IB students pass test and earn

diploma, money is earned. The high schools make money on AP and IB. In addition, the high school gets points when students pass IB exam. Also, the programs help the school grade because of the level of reading and rigor students are prepared and able to pass the FCAT.

*HS Representative #11:*

IB, AICE, and AP bring a lot of money to the high schools. Strong schools attract strong students. The money from these programs has a major impact in extracurricular activities. Dual enrollment takes away money from the high schools, and it is the competition.

*HS Representative #12:*

A magnet program that has two schools in on school is how the IB program affects the school. Even in when IB students take AP classes, the IB students have their own AP section. In addition, the IB program brings an insane amount of money and prestige. The program is a hook to get high achieving students to attend the interviewee's high school that is in low socioeconomic area. IB students makeup 40% of the high school's student body. The IB program brings in a lot of bonus money and revenue. The county capped the IB program.

*HS Representative #13:*

AICE affects the school by enhancing its reputation academically by a great deal. "Wow" is the word being used to describe AICE in the community, which is being spread by word of mouth. AICE helps the reputation of the school.

6. How does AP, IB, AICE, or dual enrollment affect the parents?

*HS Representative #1:*

Parents are proud and happy when their student is successful. When students chose AP classes they have to stay in the class, parents can struggle with this policy because these "helicopter parents" don't understand not being able to fix the problem. Parents choose dual enrollment over AP because dual enrollment safer option than AP. Yet, sometimes parents do not understand that dual enrollment grades are forever. Parents are thankful for dual enrollment and AP and that they have a choice. They want students to have experience with certain teachers so they may choice dual enrollment or AP because of a teacher.

*HS Representative #2:*

Parents groom their children for AICE and AP, and then they heavily influence their child's course selection. In regard to dual enrollment, parents are looking to get something for nothing.

*HS Representative #3:*

The interview does not receive very much feedback from parents about acceleration mechanisms. Any feedback would be mixed because parents get

made with all the work assigned in the AP courses, and then they are not happy if their child does not pass the AP exam. Yet, most parents get out of the way.

*HS Representative #4:*

Parents experience increased pressure, especially if they research all the programs details for the students as well as the high school. Yet, dual enrollment can provide relief of money pressures because students can enroll in these courses for free. The question becomes are students being pushed too much. Acceleration mechanisms can be a double edge sword for all parties involved.

*HS Representative #5:*

Parents are happy with dual enrollment because it allows their students to get free college. In addition, parents see an opportunity for their child to excel as well as have the opportunity that they may not have had. On the other hand, their child participating in acceleration mechanisms may give them false expectations, in terms of thinking that their child is smarter than he or she is. In addition, their student's participation in acceleration mechanisms may push the parent to believe that their student to be more mature than they actually are.

*HS Representative #6:*

Parents are affected by acceleration mechanisms because by their children participating in acceleration mechanisms gives parents the perceptions about keeping up with the "Joneses." As a result, these parents are overly involved and enthusiastic. These parents find out what classes to take and what teachers should their students have. Parents look to the "big community" to determine what they think is best. These parents have preconceived notions about what is best for their student. For an example, an AICE parent – father – stalked to the interviewee to make sure that the student's schedule work. Yet, class size limitations are factor in a student's schedule working. The students who take acceleration mechanisms are bright kids, but their parents do everything for them. Basically, their parents are helicopter parents.

*HS Representative #7:*

Successful completion of acceleration mechanisms can alleviate financial concerns. On the other hand, parents have to suffer through the stress that the student has.

*HS Representative #8:*

Parents are affected in a lot of different ways depending on the student and their success in the program. AICE students can earn up to 45 college credit hours. Yet, no one has control over exam schedule, which can be administered after the academic year is finished.

If the wrong student is in AICE, then the parents are affected in a negative way. The goal is to look for students who appear to be up to the academic challenge,

but do give leeway to some students who have had adverse living conditions and who may rise to the challenge.

*HS Representative #9:*

If parents are paying for college, then acceleration mechanisms can save money. Parents like their children to be in the best and brightest programs so that they can have bragging rights.

*HS Representative #10:*

Overall, parents love it because they like to brag. In addition, the parents like their students to get college credit. Also, parents like their student to get their AA degree. There is financial gain for the parents and students when the student earns college credit.

Parent does not have cost of acceleration mechanisms. Parents research and are savvy enough to know the benefits. Acceleration mechanisms save students time. IB students are serious and want college credit. IB students are around serious students so they have the “best learning environment.” Students make friends with the type of people that parents want them to.

*HS Representative #11:*

The parents have to do homework and researching of the programs. Yet, the top students are directing the decisions. Parents want to be more involved. These programs are great options for students.

*HS Representative #12:*

Parents expect a standard of quality and their kids to be competitive. Yet, some parents are concerned that the program is overtaxing students even though the program is voluntary.

*HS Representative #13:*

In junior high, students have a hard time, and parents are disappointed that their students are not being challenged. As a result, 9th grade students are waiting to be disappointed so they are pleased that students are being challenged and celebrated for being smart.

7. How does AP, IB, AICE, or dual enrollment affect the students?

*HS Representative #1*

Acceleration mechanisms affect students because these programs open doors for students and allow them to realize that they are capable of doing more than they thought.

Some students realize that they are not what they thought, in terms of academic ability. For example, if a student dreams about being a pediatrician but they are

not passing a dual enrollment general chemistry course than participating in dual enrollment may close a door for them and show them that they need to readjust their dream.

Students realize that they have to study and course work not always as easy as you think.

*HS Representative #2*

The students gain a sense of independence and maturity. Also, these students receive special treatment from their high schools because they are set apart from their peers.

They have a sense of ownership because they are taking control of their education and future. They have earned a huge distinction because of their participation in acceleration mechanisms. A result of their participation in acceleration mechanisms is that they have confidence in their abilities.

*HS Representative #3:*

Students who participate in acceleration mechanisms have a sense of pride and often there is a school within a school. Students pride themselves in being able to participate in acceleration mechanisms because they are set apart from their classmates.

*HS Representative #4:*

Students have more pressure to keep their grades up, especially competitive students who want to be valedictorian or salutatorian. Yet, students feel relief when they see how many courses completed toward their college degree.

*HS Representative #5:*

By participating in acceleration mechanisms, students feel like they are the “top dogs” because they begin to believe that they are smarter than their peers. In addition, they feel privy to certain leniencies like the dress code. Also, they think that the rules do not apply to them. As a result, they have a false sense of superiority. For example, parents and students believe that they can dictate how many dual enrollment courses that the student can take as well as the courses that they can enroll in.

*HS Representative #6:*

Acceleration mechanisms affect class ranking in big time because at the interviewee’s high school to be a valedictorian or salutatorian the student has to be an AICE student. All acceleration mechanisms are given equal weight, which is based on a 5.0 instead of a 4.5 scale. Yet, an AICE student who starts as a freshman can take Pre-AICE courses that will earn the student extra weight (4.5) while students cannot take dual enrollment until junior year and are limited to the number of AP classes that can be taken before their junior year. In addition, students in their junior and senior years can take all AICE courses.

*HS Representative #7:*

Acceleration mechanisms help students achieve acceleration of course work through college. In addition, acceleration mechanisms teach students a higher level of responsibility and accountability. Acceleration mechanisms help students prepare academically for college.

*HS Representative #8:*

The positives with AICE are a sense of accomplishment, sense of being a part of something, really being able to achieve, and prepare them for the future. The AICE program does have students with 504 plan and ESE. Yet, the AICE program does not look at accommodations. Cambridge has to approve accommodations used during examinations.

*HS Representative #9:*

Acceleration mechanisms affect the students financially, and if successful, it is great for their self-confidence. On the other hand, if not successful with acceleration mechanisms, it can kill the student's self-confidence.

*HS Representative #10:*

Acceleration mechanisms affect the students because they become stronger college ready students.

IB students have to do international project. As a result, they are more aware of the world around them because they are forced out of the box due to international projects. In addition, students are more balanced and learn to balance their life. IB and AICE instill life-long learning.

AP is just a class and does not get the connectivity that IB and AICE does. If dual enrollment is on-campus, the students are around people who have paid for the course so they take it seriously. Yet, the interviewee worries about 11th-grade dual enrollment girl students around 21-year-old guys.

*HS Representative #11:*

The amount of work of AP, IB, and AICE affect the students because it limits their social life to a degree. Students perform their extracurricular activities and do their work. These programs put them in a very structured life.

*HS Representative #12:*

Students are under stress, especially students who participate in both AP and IB. Dual enrollment is a stress reducer for students who are full time at the college. These students get off the rat race because they get out of the high school calendar and onto the college calendar. In addition, these students like not having to attend class every day and the burden of high school is lifted off.

Some students take a single dual enrollment course, AP, and IB as well as participate in extracurricular activities. These students want to be that busy.

For example, a parent may want to remove a student from a rigorous course because the student is extremely stressed the first week of school. Yet, the student does not want to be removed after all because the student has pride in being placed in the most rigorous course.

Students participating in IB seek status and are very aware of their status. In addition, they want the “feather in their hats.”

*HS Representative #13:*

AICE students feel safe, are challenged, and rise to the challenge. They are hardworking and happy people as well as feel good about themselves. In addition, they like their teachers. AICE provides an environment that they are free to be smart, questioning, and creative.

8. How do you promote acceleration mechanisms? AP, IB, AICE, Dual enrollment?

*HS Representative #1:*

Acceleration mechanisms are not promoted because students asked for these programs.

*HS Representative #2:*

Communication is key with parents and students. These students of the future generation are the ones who will supply the needs of society. Currently, the US is ranked #26 in the world in the areas of science and math. Due to national needs, the country is interested in finding the cream of the crop to fulfill these needs in math and science.

The interviewee lets students and parents know the benefits of participating in acceleration mechanisms. If a student wants to attend an Ivy League, international university, or an upper tier university, then the interviewee would encourage the student to participate in AP or IB. Yet, AICE is just as competitive as IB, but the program is more flexible than IB in terms of students being able to select courses or a track. In AICE, students get to select electives.

In regard to dual enrollment, the students want the college experience of going to the college campus now, in order to gain independence.

*HS Representative #3:*

The main ways of promoting acceleration mechanisms are: classroom visits, different events at night for parents, and faculty/teacher promotion.

Students got to understand what they are getting into with their participation of acceleration mechanisms.

*HS Representative #4:*

The interviewee has placed ads on local TV stations. In addition, teachers of the specific programs promote their courses to students. Students put on skit for each AP and dual enrollment course. Finally, word of mouth is a promotional tool for these programs.

*HS Representative #5:*

Acceleration mechanisms are promoted at the interviewee's high school by the following: an AP parent night, curriculum guide, interviewee encourages students, word of mouth from other students, teachers promoting acceleration mechanisms, offer students opportunities to take placement test at the high school, and have an open door policy for parents and students to inquire about acceleration mechanisms.

*HS Representative #6:*

The interviewee's high school personnel talks to 8th graders, but besides this promotion the high school does not do a lot of promotion. At the high school, three types of student's schedules exist: advanced, standard, and sub par. If a 9th grade student is not in AICE, then the student can take AP Human Geography. AICE schedules are already made out for the students. In regard to dual enrollment, students can start in 11th grade with American History. The business courses are reserved for seniors only because of the demand for the courses. For a student to be eligible to take College Algebra, a student has to have taken Algebra II honors or Advanced Topics.

*HS Representative #7:*

The interviewee's high school promotes acceleration mechanisms in the school's course catalog. As coordinator of dual enrollment, the interviewee encourages students who are at the dual enrollment level to participate in the program. In addition, the interviewee encourages honors students who might be afraid to take the next step.

*HS Representative #8:*

The interviewee starts with 8th graders by contacting the top 8th graders by letter. The students and parents are asked to provide e-mail addresses if they wish to be added to an email information group. Sometimes, the interviewee goes out to the middle schools and takes AICE information. In addition, the interviewee's high school offers Preview mornings that give the students the opportunity to learn more about the school. Also, the high school hosts Open House in conjunction with the general Open House for the high school's zoned students.

*HS Representative #9:*

The interviewee discusses acceleration mechanisms with the student during course scheduling. AP teachers go to other classes to promote the program. In addition, at Parent Night, a table is set-up for dual enrollment and AP along with every department.

*HS Representative #10:*

Counselors met all 11th graders individually to talk up acceleration mechanisms. AP English teacher encourages students to take it. For 10th graders, the interviewee and other guidance counselors do a classroom presentation. In these presentations, the interviewee talks about weighted GPA and class rank. Teachers push acceleration mechanisms.

*HS Representative #11:*

In terms of AP, the high schools recruit first generation kids into it, in order to challenge these students. The AP exams are hard, but the exposure is more important. These students are pushed often for the first time when taking AP courses. These students have had mixed success rate, in regard to passing the AP exam.

The recruitment of AICE is primarily by the current and former AICE students. In addition, the AICE program has an Open House and a Preview Day that consists of half day at high school. Then, the program sends e-mails out to targeted parents. There's lots of competition in town for the top students. As a result, hard fight exists for the top students to attract them to their programs.

Before Cambridge program, high school had 15-20 top-notch students. Now, in the AICE's 9th year at the high school, it has 123 top notch students who earn about \$ 8,000 to \$10,000 based on their performance on exams. The parents of these students dedicate their time and money to the high school's extracurricular activities. As a result, the program benefits the high school's academics and extracurricular.

*HS Representative #12:*

The interviewee's high school has recruiting fairs, open house, and shadowing visits that let parents and students learn about the program. In addition, the high school's personnel recruit at the middle schools.

*HS Representative #13:*

The interviewee's hands are tied because of the county's rules that she can't recruit outside of the school zone. The other recruiting factor is the program's criteria. The interviewee gathers data from feeder schools (junior high schools) and invites certain students to apply.

9. What type of student would you discourage from AP, IB, AICE, Dual enrollment?

*HS Representative #1:*

Students who are not motivated or committed to the time required by these courses are discouraged. In addition, students that do not want to sacrifice and do what is required to be successful in these courses are discouraged from participating in these programs.

*HS Representative #2:*

The interviewee would discourage with poor academic history. Can you do what is expected of you?

*HS Representative #3:*

If a reason for the students to want to participate in dual enrollment or AP is because of their friends, then the interviewee discourages these students from enrolling in acceleration mechanisms.

*HS Representative #4:*

If a student started out in AP, then drop out of the class in their freshman or sophomore year and wanted to try again, the interviewee would be cautious about this student's participation in acceleration mechanisms.

Another type of student who the interviewee would be skeptical of having success is the student that has no clear reason for wanting to participate. Basically, the student says, "I don't know" and does not know their motivation for participating.

*HS Representative #5:*

The interviewee would discourage students that are as follows: not selfdisciplined, who do not pay attention to deadlines and due dates, procrastinators, who seek exceptions and always have an excuse, who do just enough to get by, who are always looking for extra credit, and who have a borderline GPA of 3.0 unweighted GPA.

*HS Representative #6:*

The types of student that the interviewee would discourage from taking acceleration mechanisms have the following characteristics: the ones, who do not want to put in the work nor does the assignments, do not have the time to dedicate to their studies, and students who think too highly of themselves because the high school system is not going to tolerate students looking to be above the system.

*HS Representative #7:*

The interviewee discourages students, who are unmotivated, low performing, and immature. In addition, if the students have behavioral issues and a high level of

absenteeism, then the interviewee would discourage these students from participating in dual enrollment.

*HS Representative #8:*

The interviewee would discourage students who have below a 3.2 GPA. The typical middle school student coming into the AICE program has a 3.85 GPA. The school's program had been capped at 100 students each year. This year, the program was capped at 125 students per grade and had 125 students in one grade.

The 3.2 GPA students in a class with 4.0 GPA students become overwhelmed, due to the fact that the material would be over their head. (AICE)

*HS Representative #9:*

Dual enrollment has a specified GPA and test scores as the program's eligibility requirements. In addition, AP students need to have at least a 3.0 GPA. The interviewee uses the same requirements as dual enrollment sets for AP.

*HS Representative #10:*

For IB, AICE, and AP, the interviewee would discourage students who struggle with reading. The interviewee is looking at 8th graders going into 9th grade because have different factors due to students being in 9th graders. In terms of Math skills, the interviewee would want strong Math skills, but do not have to because do not have to take Calculus.

In regard to dual enrollment, the student needs to be very motivated and mature. In addition, the students have to have test scores (knowledge base). Grades are inflated in high school. Students participating in dual enrollment need to be willing to do the work. Also, these dual enrollment students may not have been ready for AP, IB, and AICE as 9th graders. Hopefully, by the dual enrollment time, they have the critical thinking skills and other skills. An IB student used to make A's without any effort. They get to the point that they have to put in effort. In terms of IB, if a student is coming out of the IB program, then they will come out at the end of 10th grade. Pre-IB is 9th and 10th grades.

*HS Representative #11:*

Cambridge and IB students are in the 85% and above group in standardized tests, which is a baseline for the programs. Work ethic is very important to be successful in these two programs. The interviewee does not encourage students who do not work. Students are kicked out of the programs if they do not have the work ethic because it is vital. These students are above average test takers.

Students are evaluated after their 9th and 10th grade year to determine if they should participate in AP. For these students, AP would be a stretch for them. This past year, the interviewee's high school had 154 students take the AP European History. Students who pass the test earn for the high school \$500-\$600. 85 out of the 154 students passed the AP test.

If push the students who participating in AP is a stretch, often these students do not pass the exam, but the interviewee believes that participating in AP classes is good exposure for them.

*HS Representative #12:*

The interview would discourage students if not making A's and B's in middle school and do not have intellectual capacity. The magnet middle school programs are rigorous, which is the reason that the interviewee includes grades of B's in middle school.

In addition, the interviewee would discourage students if they do not do homework, do not turn it in, and do not like homework. If students have these habits and attitudes toward homework, then the students would not become part of the learning environment. Finally, if a student is only thinking about school from bell to bell, then the IB program is not for these students because the school day is just a kick-start to learning.

*HS Representative #13:*

The interviewee would discourage a lazy student or if a student is just trying to please parents because it will not work. In addition, if the student does not have the academic ability, then the interviewee would discourage the student from participating in the AICE program. Finally, if the student does not have critical thinking skills or if the student cannot break something down, then the interviewee would recommend that the student does not participate in the AICE program.

10. What attracts students to acceleration mechanisms? AP, IB, AICE, Dual enrollment?

*HS Representative #1:*

Different things attract students to participate in acceleration mechanisms. First, some students do not want to be in classes that have problem students, in terms of discipline and not wanting to learn. Some students are on the college bound track and want to take classes that prepare them for college. Another influence on student wanting to participate in acceleration mechanisms is highly involved parents who want free college as well as the prestige of their student participating in acceleration mechanisms. Finally, students are attracted to dual enrollment and AP because these programs open up a variety of courses to take and experience classes that they want to take for future educational and career plans.

*HS Representative #2:*

Friends who have gone through the experience attract students to participate in acceleration mechanisms. Parents and friends are a main source of influence. All of the students who participate in acceleration mechanisms travel with other students who are in their specific program. In addition, the life you can have by participating in the programs is another attraction to participate in acceleration mechanisms. *HS Representative #3:*

The main two reasons that students are attracted to acceleration mechanisms are the opportunity to earn college credit and a sense of pride.

AP and dual enrollment students are similar in nature. Yet, the AP student may desire the national exposure that AP has while dual enrollment students are wanting to stay in-state so they are not concerned about the lack of national exposure of the dual enrollment program.

*HS Representative #4:*

Students want to participate in dual enrollment courses because it is free college and is classified as a level 5 course (weighted on a 5.0 scale). Other reasons students participate in dual enrollment or AP is because they like to be in classes with other studious students who can accomplish more academically. In addition, the students like the higher level discussion.

*HS Representative #5:*

Students are attracted to acceleration mechanisms because it gives them the ability to work on higher level courses. In addition, by participating in acceleration mechanisms, the students do not have to follow all of the high school rules and get to experience college, especially with dual enrollment. Also, the students who participate in acceleration mechanisms desire to be with more advanced students, in order to avoid behavioral and discipline problems in regular courses. The designation of taking AP courses gives students' self-esteem and self-assuredness because they are working in higher level courses.

*HS Representative #6:*

Students are attracted to acceleration mechanisms because they want to take a more rigorous schedule and attempt to work harder. In terms of AICE, the students like the program because it is a model program and elite. Students are attracted to AP because it is a way to get college credit and is more of challenge than honors classes. In addition, students are interested in AP because of some AP teachers are well thought of in terms of being engaging teachers. Students are interested in dual enrollment because it is a way to get college credit and not having to pass the exams.

*HS Representative #7:*

The interviewee stated that the general competitive edge for college admissions that by participating in acceleration mechanisms offer attracts student to acceleration mechanisms.

*HS Representative #8:*

Students are attracted to acceleration mechanisms because of the rigorous curriculum and the international perspective.

*HS Representative #9:*

Students are attracted to acceleration mechanisms because of the potential for college credit. The reason is the same for all of the acceleration mechanisms.

*HS Representative #10:*

Bottom line is the money saved attracts parents who tell their students. Juniors and seniors realize the savings on their own, especially in this economy. College credit is a big thing.

*HS Representative #11:*

The interviewee stated that the American dream attracts students to acceleration mechanisms. American dream was defined as everybody wants a good job and good money. Part of the American dream is getting the best education, which means attending the best college, best high school, and best middle school.

*HS Representative #12:*

Students are attracted to acceleration mechanisms because they want the status and the challenge associated with the programs. In addition, the influence of friends and siblings affect the desire of students wanting to participate in acceleration mechanisms along with going to get in a good college.

*HS Representative #13:*

Students are attracted to acceleration mechanisms for intrinsic reasons. As a result, parents call the interviewee because they want their students to relax and have fun. Parents cannot make a student do the AICE program. In addition, students want to be known for being in the top group as well as being smart. These students are driven and fun.

11. What would you tell parents about acceleration mechanisms? AP, IB, AICE, Dual enrollment?

*HS Representative #1:*

The interviewee would tell parents not to make a decision about their child participating in acceleration mechanisms on a whim. Also, academics do not have to be the only thing. Figure out the right balance between academics and extra-curricular activities. Finally, do not push your child into doing something that they are not ready for in terms of maturity and commitment.

*HS Representative #2:*

In terms of acceleration mechanisms as a whole, the interviewee would discuss and address the student's future plans with the parents and the students as well as the financial aspect. The underlying issue to address is how the student is going to distinguish him or herself from the other students. In addition, acceleration mechanisms offer the opportunity for parents and students to save money as well as scholarship opportunities. Parents do not want their child to be like everyone else. They want the spotlight to shine on their child. In the interviewee's high school, parents come in already researched the programs and have decided the program that the student will participate in.

AICE is more student-centered than the IB program. Both programs allow students to compete with other countries.

AP concentrates on the idea of student conducting research as well as discussing and presenting their findings. This approach prepares students to be able to compete with other countries. The interviewee discusses with the parents about the type of courses in the AP program and the grade expectations.

Dual enrollment students are focused on getting the college credit now and moving on to the next class or next educational level.

People from other countries get into the Florida State University System, and the interviewee wants Florida students to be more competitive with these international students.

When discussing the various acceleration programs with students, the interviewee has the student question which program would benefit your future career.

If a student is pursuing the fields of engineering, medical, and law – professional careers – then the interviewee would encourage AP and AICE because these programs promote research and discussion of findings.

Dual enrollment is a free for all in terms that students can still do these same careers, but may need to do community college first and then transfer to university.

Universities see a difference in the programs: IB, AICE, AP, and dual enrollment. Yet, they would not say publicly, but the flagships of the Florida State University System would rank the programs as follows: IB, AICE, AP, and dual enrollment. At the college Admissions workshop, the Directors of the State University system state that we want to train students to think.

*HS Representative #3:*

The interviewee would tell the parents to be careful about pushing students into participating in acceleration mechanisms as well as making sure that students are prepared for these classes. In addition, regular classes may have grade inflation so

the first test grade in these acceleration mechanisms courses will be low. Parents and students are accustomed to 95s and 100s on tests. When students are faced with low test grades, the question becomes is the student going to run or is the student going to stick it out. Students have to adjust their approach to these AP courses. The student's expectation is that they will sign up and get normal grades. The difference from regular classes to AP classes is memorization versus application (apply information A and information B to get the conclusion of C). Students are used to memorization not application. AP addresses how to apply information instead of merely memorization.

Dual enrollment is similar to AP, in terms of students' expectations. The main difference between dual enrollment and AP is that the dual enrollment grades stay with you.

*HS Representative #4:*

The interviewee would tell the parents that acceleration mechanisms can be a double edge sword. Colleges want students to take the most rigorous courses, but also want students to earn A's and B's in classes. The interviewee advises the students not to be involved in too many activities because they have to balance academic rigor with academic performance.

Dual enrollment courses begin the student's college transcripts that will be with them forever.

*HS Representative #5:*

The interviewee discusses with parents about their child's goal and the parent's goal for their child.

The pros of acceleration mechanisms are that the students are getting prepared at a higher level and ready for college. In addition, the students have the possibility of earning college credit. The cons of acceleration mechanisms are that they lose a lot of time from possibly participating in sports and work. As a result, another disadvantage of acceleration mechanisms is that they require a lot more time.

The interviewee uses a time and effort chart to discuss time expectation of acceleration mechanisms. Students can be well rounded and may need to put academics aside. If student does not do well in dual enrollment, then a parent may pay more money for the same courses in the long run in terms of number of attempts and possible out of state tuition. Yet, acceleration mechanisms are not right for every student.

Students have a higher responsibility when participating in acceleration mechanisms. The difference with AP is that the transferring of credit and do not pass the exam. Nationally, the AP course has a designation, but increasingly if a student pass a test with a 3, then they may have to retake the course when enrolling in college after graduating high school.

The cons of dual enrollment are that sometimes the college courses do not match with the high school schedule, and students may have to take classes during the evening. In addition, the students may have to wait to take science courses in the summer because science labs are scheduled during the afternoon for a three-hour block, which interferes with high school courses. As a result, dual enrollment students may be limited to taking sciences courses only in summer.

Not a race to see how many dual enrollment courses can be completed. Instead, dual enrollment students need to give 110% to get the foundational knowledge to be successful in college because dual enrollment courses affect both the college GPA and high school GPA.

*HS Representative #6:*

The interviewee tells the parents that acceleration mechanisms are a great opportunity. Participation in acceleration mechanisms makes students more competitive to earn acceptance into colleges and universities. Admissions look at a rigorous demanding schedule when evaluating students for acceptance into their colleges and universities. Yet, acceleration mechanisms are not for everyone. The interviewee believes it is important for students to try acceleration mechanisms. If students do a combination of all three (AP, AICE, and dual enrollment), student can begin earning college credit their second semester of their freshman year and sophomore year. In regard to dual enrollment, parents and students are more interested in dual enrollment when the economy is down, due to the high passage rate of dual enrollment. The interviewee does not view dual enrollment as being as hard as AP and AICE.

*HS Representative #7:*

The interviewee stated that acceleration mechanisms are great programs for the right students. In addition, the interviewee points out the admission criteria, especially dual enrollment. The interviewee tells parents about the risk associated with dual enrollment. The guidance of the acceleration mechanism to participate in would depend on the student's goal. If college credit were important, then dual enrollment would be encouraged. If a student wanted to a university or college out of state, the interviewee would probably recommend AP. If a student does not have a 3.0 unweighted GPA, then the interviewee would encourage AP.

In regard to the AICE program, at the interviewee's high school, an AICE student can take only AICE courses. The only exception for AICE students is if they want to take a course not offered in the AICE program, then the students can take dual enrollment courses.

*HS Representative #8:*

The AICE program is more recognized outside the US. As a result, the interviewee has to continue to talk about the program in public. For example,

University of Georgia did not accept AICE credit until recently. The AICE program is educating higher education sector.

*HS Representative #9:*

The interviewee tells parents to find the perfect fit for your child. Acceleration mechanisms are worthwhile, but they are not for every student. The selection of acceleration mechanisms depends on the child's area of strengths.

*HS Representative #10:*

The interviewee goes over the pros and the cons of acceleration mechanisms. The pro about dual enrollment is that students got guaranteed college credit if passing course.

With AP, the students do not have the guarantee of college credit because it is dependent on passing the standardized exam.

Pros of AP are national recognition, rigor of reading, time management, and pushes students to think at different level. The negative of AP is the enormous amount of work may not get college credit.

IB students take courses for love of learning. AP students do not take courses for the love of learning.

Pros of IB are as follows: develop amazing study skills, lowest amount of college credit earned is at least 20 college credit hours, bonding among students as whole in social and academic terms, and graduate with pride, esteem, accomplishment even if the student did not graduate with IB diploma.

The negative part of IB is the kids have the mindset that we weed them out, but actually the students do it on their own.

The pros of dual enrollment are the guaranteed college credit and if on-campus, the college experience. In addition, dual enrollment students on average have a 3.0 to 4.0 GPA so these students are not the strongest students, but successfully passing the dual enrollment courses give the students confidence that they can do college. When taking dual enrollment at the high school site, students get a strong foundation because they have more time. The negative part about dual enrollment is that kids who fail dual enrollment courses hurt themselves and do not realize it.

*HS Representative #11:*

In the interviewee's school district, IB has all Asians plus the students have a good commute of about 45 minutes to hour. IB is perceived to be the most prestigious. The IB's high school's extracurricular activities are a hit or miss. AICE is equal to IB from a state perception. Internationally, AICE is the most

popular curriculum. AICE's high school's extracurricular activities are strong, and students do not have the 25 additional commute minutes to the east.

The AP's high school is 90210, which means a suburban high school with smart students and a lot of white students.

The choice of acceleration mechanisms by the students depends on students' strengths and the high school's extracurricular strengths. Key factor in helping the students decide on acceleration mechanisms is the preview programs that allows the students to attend the high school for a half day. The preview helps the students get a feel for the high school.

*HS Representative #12:*

Acceleration mechanisms are not for every kid, even the brightest. The success of students in acceleration mechanisms has more to do with kids who enjoy learning, especially outside of school. If parents have to harass their student to study or their student needs to work to their potential, then the program is not for their student. In addition, if the student already has red flags in middle school and decides to participate in the IB program, then the student and parent won't be happy about their decision.

The interviewee explains the difference between AP.com versus IB.org. In regard to dual enrollment, students can take full course load of dual enrollment or an individual dual enrollment course. In the last two years, students are earning both their AA and high school diploma at the same time because economically some families need this achievement. These students' parents are from other countries, and this goal is a family decision, in order to take advantage of the cost savings of earning an AA and high school diploma.

Kids need a lot of support because they cannot have a job during school year, especially if the student is involved in sports and extracurricular. Kids can have a summer job, but having a job during the school year and keep up their academics is too difficult. Asian families who own restaurants have their kids work part-time during the school year, but their children have a difficult time because students only can balance so many things.

An economic indicator is present in the participation of acceleration mechanisms. More affluent parents who are not expecting their children to help out with expenses have their children participate in acceleration mechanisms.

*HS Representative #13:*

If kids fit AICE criteria, then they will be admitted into the AICE program. The students will be intrinsically motivated and curious in nature. The AICE program allows students to be smart and will work with them. Students want to take harder math and science courses.

12. If you were a high school student what acceleration program(s) would you participate in and why?

*HS Representative #1:*

The interviewee would do a mix of dual enrollment and AP and dual enrollment courses. Actually, the interviewee took AP Language and AP Literature in high school. She majored in English during college. She stated that she would not be nearly as successful in college if she did not take AP Language. In fact, AP Literature exposed her to different types of literature. Due to high school policies at the time, the interviewee was only allowed to take dual enrollment American History at the high school site during her senior year. The high school policy at the time only allowed a select few students to take dual enrollment. She would have taken more math and science through dual enrollment, in order to get a jump on college requirements. Yet, if the interviewee had done more dual enrollment, she would have been more inclined to finish an AA degree.

*HS Representative #2:*

The interviewee would do a mixture of AP courses and dual enrollment courses because she knows her strengths and weaknesses. She communicates well so she would be attracted to the research part that the AP program offers. The weakness of the interviewee is Math so she would take this subject as dual enrollment because she would not have the pressure of the test.

*HS Representative #3:*

If a student passes a dual enrollment course, then the student earns college credit. As a result, when dual enrollment students graduate from high school and enroll in college, they do not have to take as many college courses per term. For example, a student can enroll in four courses instead of five and still be on track to graduate.

*HS Representative #4:*

The interviewee would have participated in the dual enrollment program mainly at the high school site because she liked the social piece of the high school.

*HS Representative #5:*

The interviewee said that she would have participated in dual enrollment because with dual enrollment a student has more of a guarantee of college credit and is more readily accepted by the state universities of Florida. In addition, from a financial standpoint, the interviewee would stay in state and would want small class size environment. Another point about dual enrollment is that the interviewee stated that students know what is going to be on exams instead of the acceleration mechanisms that have national standardized exams. The difference with dual enrollment is that the instructor has some freedom in crafting tests. As a result, by students knowing the instructor, they can gauge what is important to the instructor and can be able to focus on a more limited amount of material. In

addition, dual enrollment students can ask clarifying questions to the teacher while often AP teachers may not be able to go in depth due to the breadth of subject matter that they need to cover with their students. In summary, dual enrollment has no final standardized exam.

*HS Representative #6:*

The interviewee would participate in dual enrollment because it is a good and challenging program. Yet, with dual enrollment, if a student gets a passing grade then they would be okay and not worried about the national standardized exam. In addition, the interviewee would have gotten a more of a feel for college classes.

AICE is a European model.

*HS Representative #7:*

The interviewee would take dual enrollment. In fact, the interviewee took dual enrollment English, which was the only option offered. The interviewee never considered AP due to the test at the end.

*HS Representative #8:*

The AICE program offers more flexibility, especially at the top. For example, if Math is not the strongest subject for the student, then student can drop AICE Math junior year and would be able to find an alternative Math course. In addition, these students were involved with a lot of high school activities. AICE has more flexibility. AICE seeks students that are involved in something.

*HS Representative #9:*

The interviewee would choose dual enrollment because she is not a good test taker and would want a sure thing.

*HS Representative #10:*

The interviewee would be perfect dual enrollment student because ready for by junior and senior. The interviewee would not be an IB student because of maturity and the discipline of taking 5 years of foreign language in 4 years. The interviewee knows herself and her own goals.

*HS Representative #11:*

The interviewee places a value on moderation. These magnet programs, IB and AICE, encourage extreme. More and more, the interviewee would look at taking AP because he would have the ability to pick and choose courses. He would want to avoid burnout and a more balanced in life. In addition, the interviewee stated that he did not have the academic skills set, at least in the way schools measure intelligence.

The IB and AICE students really sacrifice and experience stress as well as have anxiety attacks. The interviewee would prefer that students would be encouraged

to really pursue topics of interests on their own. Yet, if students are so regimented in school, then the students do not have time to be creative.

*HS Representative #12:*

The interviewee would participate in the IB program because the interviewee attended a Catholic high school that had a strong rigorous college prep curriculum. IB program is very similar to the high school's curriculum that the interviewee experienced. IB has an indepth science as well as has a wide range of literature. Regular curriculum equals regular high school. In regard to IB students, kids like the interviewee because they are smart, capable and going to a good college.

*HS Representative #13:*

The interviewee would participate in the AICE program because she has experience with the program and sees the results of the program. In addition, the interviewee's high school offers so many AICE courses. The AICE students take AICE courses and will take AP courses as electives. Also, some of the AICE students will take dual enrollment courses that there is no AICE courses in the subject matter. Yet, most AICE students achieve credits when taking the exams so why would they want duplication in credit.

The quality of faculty, students' interest, and demographically blessed has led to the success of the interviewee's AICE program. In addition, the interviewee's school district is strong public school district. The interviewee's high school has strong feeder schools. The parents of the AICE program are supportive of the program. Students will not take classes that are not weighted the full 5.0. The majority of the AICE students are strong in Math and Science. Yet, some students are strong in History and English. Last year was an experimental year because the high school introduced AICE Art. The students taking AICE Art are not graded on creativity. AICE Art classes look at history and teach students to follow a process.

13. Would you like to add anything else about acceleration mechanisms to the discussion?

*HS Representative #1:*

The interviewee still has reservations about acceleration mechanisms, due to pushing kids through school. Acceleration mechanisms are good if the intent is to be a challenge and get students ready for college. The question is what we doing to kids by encouraging so much acceleration. Kids in middle school are taking high school classes so students can take more dual enrollment classes. Acceleration mechanisms becoming out of control with the increased number of participants and may need to be controlled.

The State College has so many programs that do not require college degrees (bachelors), but by participating in acceleration mechanisms kids do not see that technical degrees or certificates are viable because not as prestigious as going to university. As a result, participation in acceleration mechanisms may discourage students in pursuing a technical degree at the State College.

Parents want students to take AP and DE classes because they want their children to go to university and do not think about what students do as a career. For example, a parent does not consider a career as a welder for their child.

*HS Representative #2:*

Select few students are given the information. A person never knows what motivates a child. If initially, the student may not meet the requirements at the time, but the student could work toward meeting the requirements.

The students who participate in acceleration mechanisms are a different breed because they are motivated and confident about their abilities.

*HS Representative #3:*

The interviewee did not want to add anything to the discussion.

*HS Representative #4:*

The interviewee did not want to add anything to the discussion.

*HS Representative #5:*

In the past, College Board did not see as much value in AP for students who are not prepared for their courses all along or from the beginning.

The interviewee stated that there is no vertically alignment. Push students because of the way courses and tests are designed. The interviewee believes that possibly in three years students attending her high school will be successful because the students will have been exposed to the Springboard curriculum and will have taken pre-AP courses. As a result, the students will be more prepared for taking AP courses and passing the AP exams because they will be more accustomed to the AP curriculum. Majority of students who have not been exposed to Springboard curriculum and have not taken pre-AP courses do not where their holes are in terms of learning subject material and studying.

Students do well in dual enrollment because they are accustomed to the type of instruction of dual enrollment teachers, which “this is what I want you to know.” In dual enrollment instruction, teachers lecture to students and clarify the material when students do not understand or grasp the material. In addition, dual enrollment teachers will adjust the material or curriculum to fit the needs or level of the students. Sometimes the teacher will say to the students, this material will be on your test. As a result, dual enrollment program can be watered down, due to

the teachers adjust the rigor or curriculum for the levels of the students in their courses.

On the other hand, AP has broad themes, and students have to seek answers for what the theme is, what the motivation is, and why the effects or events occurred. The intent of AP curriculum is for student to learn to question; however, students do not question the material or teachers because they do not know what to question or how to question. AP's curriculum promotes reading strategies and interacting with the text so that questioning will take place.

*HS Representative #6:*

The interviewee really likes dual enrollment program; however, as a whole the community colleges do not necessarily love high school dual enrollment because of the FTE issue. Dual enrollment students get treated as college students not as high school students. Economics and US Federal Government are two courses that cause dual enrollment students problems in terms of passing the courses or earning low grades.

*HS Representative #7:*

Generally, the interviewee likes the programs. The interviewee is concerned that external pressure for college admissions is getting students into these acceleration mechanisms that do not belong. As a result, students participating in acceleration mechanisms who are not ready are contaminating and diluting the programs. Yet, the interviewee does not know how to address it.

*HS Representative #8:*

Not. The interviewee states that AICE is really good program for right students. Teachers make the program because the teachers are top-notch teachers. These teachers want to teach in the program, super knowledgeable in subject, and innovative. In addition, these teachers find supplementary materials and are organized. Students and parents expect teachers to be organized and at least one step ahead of them.

*HS Representative #9:*

The interviewee stated that acceleration mechanisms are wonderful, and parents need to find out what is appropriate for their individual student.

*HS Representative #10:*

No. Acceleration mechanisms offer more positives than negatives for students. In terms of acceleration mechanisms, students can always get out of it, but cannot get into it.

Teachers who teach them are the best teachers. Often, with acceleration mechanisms do not have discipline issues because "best learning experiences."

*HS Representative #11:*

The interviewee stated that it is critical and key to keep in context programs. The interviewee commented that it is not fair to compare his county to others because not equal. Yet, the interviewee's school district does not do well with low-level students. There's a debate that too much is being referenced or resourced to high-level students and not low-level students. Best teachers teach in these acceleration mechanisms. These best teachers get funded when their AP, AICE, and IB students pass their program's exams. This county is a unique county for this part of the country. IB and AICE are really strong academics and are really extreme. In regard to mental health wise, these programs may not be great. Parents are trying to pull students back, in terms of loading up on accelerated classes. Yet, students are pushing themselves.

*HS Representative #12:*

Not for everybody. People are "IBelistic, and this belief is a misconception because these people are too idealistic about what program should be. These people think IB is bliss idyllic and nirvana. Yet, the IB program's administrators still have all the responsibility of public schools. These people see this responsibility as baggage that piggybacks onto the IB program.

*HS Representative #13:*

The interviewee hopes that the state continues to see the value of these programs because they are at the whim of the legislatures.

14. If you could change anything about acceleration mechanisms, what would it be?

*HS Representative #1:*

The interviewee would not want any kid to think that they could not do it. Yet, the interviewee would want the process to improve by looking beyond the numbers (GPA, test scores, etc.). Yet, the number of students makes better screening and delving deeper with each student difficult.

*HS Representative #2:*

The interviewee would drop the dual enrollment initial eligibility GPA requirement to a 2.8, but she would keep the test requirements. In addition, for all of the acceleration mechanisms, the interviewee would have safety nets in terms of help sessions for both the course and the exams. Lastly, the interviewee would talk more to 9th graders about their high school GPA and test scores.

*HS Representative #3:*

The interviewee suggested that the dual enrollment GPA be changed from unweighted GPA to weighted GPA. The rationale for the interviewee's proposal is that the students who take honors classes and earn a "C" get penalized while a student could take standard course and make a "B." A lot of students have a 2.7 to 2.8 unweighted GPA, but these students' weighted GPA is 3.2 to 3.3 because these students take honors classes. Students need to take honors courses to prep

themselves for dual enrollment, but they need to earn “A’s” or “B’s” to qualify for dual enrollment.

In regard to AP, a student can enroll in an AP class with a 2.1 GPA. This student will be exposed to rigorous curriculum even though they do not do well in class. As a result, the student will realize that he or she is not ready for the next level. The interviewee states that good can happen from the exposure to the course is hard.

*HS Representative #4:*

The interviewee would want students to weigh decisions on participating in acceleration mechanisms more by researching their options. In addition, the interviewee wished that the students understood the time commitment because these courses require more time than students think. The students do not think that the time would be more than other HS courses. Number of dual enrollment and AP students need to look at their whole life to assess to see if they have the time to participate in acceleration mechanisms. These courses require more preparation and are more time consuming than standard courses.

*HS Representative #5:*

The interviewee stated that she would find a way to put faith in AP. A solution needs to be found to put “merit into the course” besides just placing merit of the course on the standardized exam and the AP designation. Another point of contention that interviewee brought up the fact that students are not required to take the AP test, but they still get extra weighting in terms of their high school GPA and college admissions application.

One solution proposed is to make students take AP tests or GPA weight goes to honors level.

In terms of AP testing fees, no consistency is standard on the payment of national test fees because free and reduced lunch students only pay \$22. In addition, funding is difference across the board. AP exam should be the end of course. To take the AP exam would truly be to earn the AP designation on the high school transcript as well as the GPA requirement.

The change to dual enrollment would involve the costs, especially related to textbooks. One of the main cost challenges to dual enrollment is the fact that textbooks change so frequently, and the textbook funding does not adequately fund for the growth of the program. Yet, the state encourages the growth of the program by making dual enrollment participation and success part of the high school grading formula. There’s an increase in FTE (full- time equivalency), but high school bear the burden of the rising costs of the dual enrollment program. A possible unintended consequence of the rising costs of the dual enrollment

program is that high schools are forced to cut into other programs at their high school, in order to meet budget.

*HS Representative #6:*

The interviewee would change students in terms of them being more aware of responsibilities for participating in all three of the acceleration mechanisms (AP, AICE, and dual enrollment). The students need to realize the seriousness of not being successful in dual enrollment and the implications of not being successful in acceleration mechanisms.

There is a need for an orientation for dual enrollment students, especially at the high school site.

*HS Representative #7:*

Program reserved for the right student. The interviewee commented that she is a bleeding heart counselor because she would want to give every student an opportunity and access.

*HS Representative #8:*

The interviewee (AICE) would change the calendar and have exams end two weeks earlier.

*HS Representative #9:*

If the interviewee could change anything, she would want more concrete eligibility requirements for AP, IB, and AICE.

*HS Representative #10:*

All (acceleration mechanisms) have their place and would not change anything.

*HS Representative #11:*

The interviewee would love to see priorities shifted away as well as value creative students. In addition, the interviewee would like to see students being creative on their own, and these students do a lot of stimulating things for their community and self. Wish loading up on acceleration mechanisms courses was not the only route to highly selective universities. The education system is not teaching kids to be creative and inquisitive. As a result, there are not leaders and not entrepreneurs being produced. Instead, it is educating students to be conformists. The healthy solution would be for students not taking 18 AP courses. If a student is taking 18 AP courses, then they are not doing outside courses. The interviewee would love students to engage in interests and activities outside. When IB and AICE students have free time, they are extreme with their social life and have no balance.

Higher education pushes these attitudes on high school. If higher education would change to a more healthy admissions process, the student would be more expressive and creative with their intellect. The value would be placed on

diversity of thinking and creativity. Higher education values AP, IB, and AICE courses. High school system reacts to higher education.

*HS Representative #12:*

The interviewee would make smaller class sizes that would consist of 16-20 students. For a math teacher, the interviewee would suggest a slightly larger class size of 24 students. Another change the interviewee would suggest is she would want the state legislature to fund a 7 period day. With the additional FTE or the extra period being funded, kids could take their fine art class. If a student has a “0” period, the student can take IB classes and participate in the fine arts. A “0” period starts at 7:30 am, but students cannot ride the transportation bus. Yet, if a student has an extra period, then they can participate in band, chorus, or an extra science course or maybe study hall. IB students do not take PE and take all academic courses. If an IB student had an extra period, then they could have a study, which would help the IB students who participate in sports.

*HS Representative #13:*

The AICE program is an international program. The biggest change that the interviewee would suggest is the opening up of the program to the whole county by the school district and make it a countywide option instead of an option for students who are zoned for the AICE high school.

### **College Representatives’ Interview Guide:**

In terms of college representatives, 18 people decided to participate in the research study. The participants were categorized as follows: ICUF, SUS, and SC. Two people were from the ICUF category while SUS had 10 people contributed to the research study. In the category of SC, six people were interviewed. Each of the participants from the group was arbitrarily random assigned numbers, in order to preserve anonymity as well as provide clarity to the comments.

1. How do colleges/universities use acceleration mechanisms?

*ICUF #1:*

Colleges and universities use acceleration for students’ preparation for the next level of achievement. Students use acceleration mechanisms to show that they are qualified to succeed, to prepare for rigor, and for the classroom experience.

The interviewee is on the fence about giving credit for acceleration mechanisms. The students may know the subject, but they do not have the maturity to be in classrooms with upperclassman. Dual enrollment program can have a wide variety of experience. Dual enrollment at the high school site does not offer a collegiate experience.

*ICUF #2:*

Colleges and universities use acceleration mechanisms as an indicator of college preparedness and ready to compete at the next level. In addition, colleges and universities utilize acceleration mechanisms for placement into the next class.

At selective colleges and universities, acceleration mechanisms help students separate them from other applicants who have not taken acceleration mechanisms. Acceleration mechanisms are more rigorous and accelerated in comparison to standard and honors curricula. Yet, are the students who have accelerated so much equally prepared socially?

Students succeed with acceleration mechanisms so participation is a safe bet.

*SUSF #1:*

Colleges and universities utilize acceleration mechanisms to assess preparation because they tend to be measures of rigor in general of secondary preparation. In addition, on the academic side, credit standing issues exist with acceleration mechanisms because of the matter of time to degree.

*SUSF #2:*

Colleges and universities use acceleration mechanisms for the admissions application. The acceleration mechanisms are factored into the GPA and get an extra point in the GPA calculation. In addition, having acceleration mechanisms looks favorable in an application.

Students with acceleration mechanisms can get college credit hours for successfully passing the course (dual enrollment) or passing the standardized exam (AP, AICE, and IB).

In terms of the SUS, Florida legislature mandates how the colleges and universities use acceleration mechanisms.

*SUSF #3:*

Every school is a little different. Fundamentally, colleges and universities identify best and brightest student. Student put best face on application. There's a warped sense of excellence, which is a narrow sense. In regard to acceleration mechanisms, the interviewee thinks students are irrespective if taking acceleration mechanisms is tied to long-term goals, career, and interests. Great students are in schools that do not offer acceleration mechanisms. When acceleration mechanisms are available, students are expected to take rigor. Yet, students do not have to flood schedule with acceleration mechanisms. More is not always best. Several students cannot guess their admission outcome. Often, people do not view that the SUS look at the entire student's record. Bottom line is that there is not guarantee. Everyone who applies to a college and university will be considered. Intrinsicly, the decision to apply should be based on desire to enroll in school and graduate college instead of probability of being accepted into the college.

Students should challenge themselves appropriately. On other hand, if a high school offers acceleration mechanisms, then students should participate. SUS look at application in context of the high school environment that the student comes from. No one can have perspective that SUS has because they view thousands of applications from state, national, and global. Yet, high school students try to outguess admission applications.

State schools depend on state budget, which determines space and number of offerings can change quickly. Students may not be accepted because of budgetary concerns. Factors are beyond a student's control (university budget).

Narrow definition of excellence seems to exist.

Colleges and universities' goal is to bring in the best and brightest. Students have more choice of a major. The universities are involving faculty more and engaging them so that they can help students understand the career pathway.

Balance between lower and upper divisions because timing is key. There's a different strategic approach in admissions. In regard to dual enrollment, students can prove that they can be successful in a rigorous academic environment. The context of environment and student is different. Who is to say which acceleration mechanism is stronger?

*SUSF #4:*

The use of acceleration mechanisms varies significantly from university to university. In regard to the Florida state university system, acceleration mechanisms are used as accelerate degree program. In term of legislators, they hope to create space in universities so that the state does not have to build 13th and 14th state university.

An example, Harvard Dean of Freshman does not use acceleration mechanisms to move students through the university because they view their courses as part of the Harvard experience.

University of Florida and IB students are given 30 semester hours credit, but these students did not use these credit to accelerate their degree. These students do not want to be placed out of courses because these students have varied interests.

How students and universities use acceleration mechanisms vary by students and vary by universities.

*SUSF #5:*

Colleges and universities use acceleration mechanisms to give college credit and use in the admission process. The college admissions process is holistic in nature. Students use acceleration mechanisms to have advanced course rigor.

*SUSF #6:*

Colleges and universities use acceleration mechanisms in a positive way for the most part. Acceleration mechanisms provide rigor and college preparation for the students.

Not enough safeguards to ensure eligibility to participate in acceleration mechanisms. Students are pushed too far and too fast without proper preparation.

*SUSF #7:*

Colleges and universities use acceleration mechanisms as a way to grant credit to students. The credit will apply to 120 hours bachelor's degree. Average freshman bring 15 credit hours to college. Acceleration mechanisms can decrease time to degree. Freshman with acceleration mechanisms credit at early registration can sit down and plan a degree in three years with a program of study. These students are like honors students with advanced registration. Excess credit hours are becoming more important because acceleration mechanisms to count.

Acceleration mechanisms are a great bargain for taxpayers for students to get at jumpstart on college.

*SUSF #8:*

The first piece in how colleges and universities use acceleration mechanisms is the admissions piece. Acceleration mechanisms are given points to weighted GPA in the admissions process. 1.0 is given for AP, AICE, IB, and dual enrollment while 0.5 points are given for honors courses. The second piece in how colleges and universities use acceleration mechanisms is the results of taking acceleration mechanisms in the awarding of college credit. In regard to dual enrollment, a student earns college credit when passing the course. With AP, IB, and AICE, if a student passes the program's exams, then the student is awarded college credit.

*SUSF #9:*

Colleges and universities use acceleration mechanisms for admissions purposes. The acceleration mechanisms are given additional weight to GPA. For many colleges and universities, students take acceleration mechanisms because these programs are expected to be more rigorous. There's not a joint approach to acceleration mechanisms across the country. All SUS have a standard quality weighting for C or better for acceleration mechanisms. In addition, colleges and universities use acceleration mechanisms in the awarding of college credit. In terms of dual enrollment, college credit is awarded based on successful completion of the courses. Acceleration mechanisms can save students money. In addition, acceleration mechanisms can help students graduate sooner or allows them to explore more academics while in college.

*SUSF #10:*

College and universities use acceleration mechanisms in three ways: 1) admissions, 2) placement, and 3) college credit

In regard to admissions, 1.0 for every AP, IB, AICE and dual enrollment course is used in the calculation of the weighted GPA for admissions. In addition, honors courses are weighted .5. As a result, the scale is 5.0 instead of 4.0. The highest student GPA is 4.7 GPA. The university's admissions department broadcasts that admissions is not a numbers game, but it is holistic in nature. Yet, if a student does not have acceleration mechanisms credit, then the student is not competitive in admissions. In 2011, middle 50% of admitted students had a GPA range of 4.1 to 4.4.

In terms of placement, the university does statistical analysis annually to see how students are faring when given college credit via test programs of acceleration mechanisms. For example, if a student earns a "3" in AP – AB Calculus, then the advisor recommends that the student to retake the course because the university's analysis show that students with a "3" in AP – AB Calculus have 17% drop out rate in Calculus II while students with a "4" have 7% drop out rate with a mean of 3.4 GPA. Pre-professional (medical, veterinary, and dental) schools do not like to see all this test credit. Pre-professional colleges want students to take the courses at the college.

When the university looks at Calculus II with Calculus I test credit, students who scored a "3" earned a 2.63 while students who scored a "4" scored had a 2.86 GPA.

The chemistry department has determined that they needed their own placement test so they have created a placement test, Chemistry Readiness Assessment. In addition, the Math department developed an assessment test, ALEKS, that they feel is a better predictor than an AP score. In terms of placement, the faculty does not feel AP score is a good predictor of student success, especially scores of 3 in higher level courses.

In regard to credit, general education and electives are the usual areas that credit is awarded in. State mandated awarding of course credit when courses have common course numbering. There's limited flexibility.

Just in the last few years has AICE been a factor, and the university started including it in Orientation.

*State College #1:*

To keep guided students on educational plans and to satisfy prerequisites and general education courses, this allows students to progress through upper level classes before they normally would have and finish faster than normal college students.

*State College #2:*

Acceleration mechanisms are a state mandate in statute so colleges and universities feel compelled to comply by offering dual enrollment. In addition, acceleration mechanisms offer an opportunity for students to get a feel for

college. Students can put themselves in college. Colleges and universities use dual enrollment as a recruitment tool to showcase programs, financial aid, and admissions. A factor in school assessment has caused an increase interest in acceleration mechanisms from school and schools district. College with multicampuses has relationships with high schools by establishing relationship between high school and college campus. Consistency process and procedures feeder pattern...Funding purposes for high school.

*State College #3:*

Our college tries to supplement the high school curriculum with more rigorous courses and also provide more program offerings. There are many students who do not want to sit in high school classes that have discipline problems; they want to get out of the high school environment.

In addition, students can start on their career goals, can complete certificates, AA, and/or AS degrees to advance their educational goals. Acceleration mechanisms offer high school students both financial and career opportunities they may never have had.

Another benefit of acceleration mechanisms is that the high schools will gain credit for completers and their school grades will improve.

*State College #4:*

In Florida, students have the opportunity to take college credit classes to satisfy AA and high school requirements. There's an agreement between a state college and a public school district that gets reviewed annually. In regard to dual enrollment eligibility, the state college follows state guidelines with test scores while sometimes districts mandate GPA. More dual enrollment students are graduating with both their AA degree and high school diploma. Increasingly, state colleges are offering dual enrollment at the high school site. Although dual enrollment instructors may be high school instructors, they are considered to be state college faculty.

*State College #5:*

Acceleration mechanisms eliminate duplication of courses. In addition, dual enrollment students perform well in college courses. In addition, students can start farther along in terms of their college courses after graduating high school. The dual enrollment program gives students opportunity to get rigor. The college looks at dual enrollment students to recruit them, which means that students are converted from dual enrollment to regular status. *State College #6:*

Colleges and universities utilize acceleration mechanisms to move students ahead so they can earn college credit at an early age. The main use for acceleration is in the awarding of college credit. The main difference between AP & DE acceleration mechanisms is that the Dual Enrollment course and grade appear on the college transcript and college credit is earned immediately after taking the course. AP college credit is awarded by a college and only after test results indicate a certain level. However, the grade the student earned in high school for that AP course is not calculated into the college GPA.

It has been my experience that universities are not happy when Dual Enrollment courses are offered on a high school site because typically, a high school instructor teaches the college course. Dual Enrollment at the high school is not the same as Dual Enrollment courses offered at the college campus.

The interviewee's state college has high school students who earn AA degrees at the same time as their high school diploma. The President at the Interviewee's college recognizes these students at their college graduation ceremony where there are hundreds of people. This is a big source of free publicity for the college's Dual enrollment Program.

2. What is a student profile for an AP student, IB student, AICE student, and dual enrollment student?

*ICUF #1:*

IB viewed as the top program because in all courses students are handling rigor at the college level.

In regard to AP, the rigor of the course depends on the subject level. By participating in AP, students show their persistence level, want to excel, have academic desire, and aspire to achieve. Yet, often the students depend on their high school because students are placed by their guidance counselors. Most of the students in dual enrollment and AICE have these same characteristics. *ICUF #2:*

AP, IB, and AICE are probably stronger than dual enrollment. Students in these programs are more driven than peers not in AP, IB, and AICE. In addition, these programs are less risk and safer bets. AP, IB, and AICE students see how elite an institution that they can get admitted in.

Dual enrollment students are strong students, but their end goal is getting their degree sooner. Generally, academically and standardized test scores in acceleration mechanisms are higher than students enrolled in regular and honors curriculum. *SUSF #1:*

Acceleration mechanisms have high GPAs because state universities are required by the state to weight appropriately and consistently across acceleration mechanisms. In addition, students who participate in acceleration mechanisms are decent test takers (SAT and ACT) and have higher number of academic subjects in secondary preparation, in order to get the end of options. The students start in 7th and 8th grade taking high school courses. As a result, SUS look at the student's 7th and 8th grade courses when assessing the student for admissions consideration.

A little bit of difference exists among the acceleration mechanisms. In regard to IB, these students are driven and educational attainment is the core and the center less the student than the family. AP students are more broadly engaged sometimes in curricula and most often in extracurricular.

In regard to IB, see more hybrids instead of the classical sense of the diploma program start and finish in credentialed curriculum. IB has become more

Americanized. Students, as freshman and sophomore, take pre-IB testing the water. Then, if the student as a junior is struggling in IB, then as a senior the student may take a little IB or AP or go completely with dual enrollment. If a student cannot do IB, then will go to dual enrollment because they are burnt out on expectation and are afraid that AP would be the same. Yet, the students do not want to go into honors and do not want to be at the high school so they turn to dual enrollment.

The interviewee's university has more students submitting IB tests than any other college in the nation. IB has been around for over 25 years. In terms of AICE, the interviewee has not had enough experience because the program is too new. The parental expectation between AICE and IB is which one is easier. The interviewee suggests that the educational decisions are best when politics are out of curriculum. Competition is created at the school district level and is usually in terms of fairness wise.

Dual enrollment parents are looking at the financial aspect. Often, dual enrollment students have lower GPA and a little less prepared. Yet, there is a shifting with dual enrollment because used to students would jump into it as senior for freedom purposes. Now, students will participate in dual enrollment earlier if full in and unless drawing maximum benefit. Parents see a lot of freedom in the dual enrollment environment. Now in dual enrollment students have a seriousness that used to not be there so the program is legitimizing itself. If you put enough incentive into something, then you will legitimize itself.

*SUSF #2:*

The college looks for acceleration mechanisms. Most admitted students have acceleration mechanisms. In fact at the interviewee's university, almost all students have acceleration mechanisms, and it is rare to admit someone without acceleration mechanisms.

Students who participate in acceleration mechanisms challenge themselves and go beyond what is required. In addition, most students have higher level math.

Students who take acceleration mechanisms are an academic student.

*SUSF #3:*

A student profile of students who participate in acceleration mechanisms are the following: embrace rigor, ambitious, ask thoughtful questions, research colleges, and usually are scholarship kids. Most are B+ or better students in all acceleration mechanisms.

*SUSF #4:*

IB students have interests across academic disciplines and forced to take courses across the board. These students have to take 1st language, 2<sup>nd</sup> language, and math. The curriculum is very demanding. IB students are very motivated students with varied interests.

AICE is from the British system and does allow student to take courses specific to their interests. For example, at Eton if a student wants to become a doctor or scientist, then the student would take 3 A level (indepth) chemistry, physics, and math. In AICE, a student has the possibility of taking 3 A levels. Florida high

school graduation requirements make it possible. AS levels are one year in length and have to take courses across curriculum.

IB and AICE have similarities in terms of the level of rigor. IB student can't specialize while an AICE student can specialize.

AP has been around forever. All AP courses are not created equal, and some courses are more challenging than others. For example, AP Chemistry is more challenging than Environmental Sciences.

In the British system, admissions are centralized and it evaluates all acceleration mechanisms. They have divided AP courses to see if equivalent to AICE or IB. Most US admissions offices are aware of distinction, but they don't differentiate it. An elite college might differentiate the acceleration mechanisms.

Cambridge Program does not have a full program. Oxford University of London to come up with a new curriculum from A levels. The new curriculum is the PreU, which offers individual courses. Global Perspectives and Individual Research is a 2-year course that began at Eton and Westminster. Eau Gallie HS in Brevard County Florida is piloting the Global Perspectives and Individual Research course. The Higher Education Advisory group, which consists of MIT, Duke, Yale, Columbia, University of Texas, and University of Virginia, loves this course. 15 high schools are piloting this course that is partnership with AP. The course is a challenging course that emphasizes critical thinking and collaboration. The first year is the Global Perspectives part that students deconstructive and reconstructive a controversial topic. Then, in the second year, the course is independent research portion that is graded by Cambridge curriculum. This course and partnership with AP offers more visibility in the US. Cambridge is using AP to deliver the course and its PR. The 15 high schools that are piloting the course are in a variety of settings – rural and urban.

Dual enrollment is really a mixed bag. Some dual enrollment courses are just as good as others acceleration mechanisms, but the quality of the course depends on faculty. Due to no standards, a person cannot be certain of value of course. SUS is required to take dual enrollment. In addition, the interviewee has difficulty with accepting the course as being the same as a state college versus Harvard. Dual enrollment is growing like wildfire, and it is easy to get credit.

In some cases, AP course can be challenging as much as IB and AICE. AP Calculus Math is stronger than IB Math. Further levels of Math in IB and AICE, but no US students have taken these Math course.

An issue with dual enrollment, even with other acceleration mechanisms, is that credit is earned at some schools, but other colleges and universities do not accept credit. Dual enrollment goes across the board and can be appropriate if high school does not offer advanced courses. The interviewee would not suggest dual enrollment English over AP English.

*SUSF #5:*

Similar characteristics of students exist among all acceleration mechanisms. Students who participate in acceleration mechanisms are all motivated and academically advanced.

*SUSF #6:*

Students are more college focused and more academically prepared at the college level as well as challenging themselves. Acceleration mechanisms are not available at all high schools so hard to compare acceleration mechanisms plus it would be discriminatory.

*SUSF #7:*

The interviewee does not see many AICE students, but sees lots of AP, IB, and dual enrollment. A lot overlap among students exists with taking both AP and dual enrollment. With academies and Early College, the interviewee sees lots of dual enrollment. Students with acceleration mechanisms are very good high school students.

College is a lot different no matter how much acceleration credit. Sometimes, risk with acceleration mechanisms and students do not fully grasp it. Students believe have done college so surprise when they struggle.

*SUSF #8:*

The students in the different acceleration mechanisms have similar characteristics. It would be hard to judge students by the acceleration mechanism program that they participate in because not all schools offer IB programs or AICE programs. High schools generally focused on one or the other acceleration mechanisms. All high schools focus on acceleration mechanisms. In years past, only top students participated in acceleration mechanisms. Now, students across the board take these programs.

*SUSF #9:*

The expectation of students who have participated in acceleration mechanisms is that they are college bound and academically talented. In reality or at least in the student's mind, acceleration mechanisms are requirement for college admissions. Acceleration mechanisms are preparation for college work. In regard to dual enrollment, the concern is for the course work. Homeschooled students take a lot of dual enrollment. Traditionally, IB students are more affluent and academically inclined while dual enrollment is more urban; however, these lines are blurring. High schools are looking to offer many acceleration mechanisms. For example, Stanton Prep is an IB school with a sweep of AP and has some dual enrollment. High schools are at their academic capacity and pushed by their school grade to one or more of acceleration mechanisms. Is this a good thing?

A pecking order of acceleration mechanisms exists: IB, AP, AICE (not enough schools have the program), and dual enrollment – the stepchild or less loved. Dual enrollment has more questions about it. One concern for dual enrollment is that while being taught at the college guarantees credit and grade, which can cause concern in terms of the level of rigor. There has been a huge increase/uber of students who are coming to the state university with 35 credit hours to 60 credit hours.

In regard to AP, students are usually affluent and are better test takers. On the other hand, dual enrollment students generally are more lower to middle class, minority, and urban students. Dual enrollment grew from an urban environment in New York.

*SUSF #10:*

The interviewee lumps AP, IB, and AICE together. Anecdotal views of the students are that they are well rounded, want high school experience, and still involved in high school. In regard to dual enrollment, in general these students are bored with high school and ready to do something different. These students are not really involved in high school. Yet, some dual enrollment students are just doing what is available in their community.

*State College #1:*

AP – successful AP students – accelerated nature and advance rigor. They put in extra effort, learn more material and are willing to take the exam, often in courses that are not necessarily required for graduation. They want more of choice in terms of course selection.

IB – students want to challenge themselves more. Cohort of students taking selected courses, not as much choice when it comes to course selection, especially as compared with AP and DE. In addition, IB provides convenience to students because their high schools offers program.

AICE – AICE can be convenient because program is offered in high school. Courses are rigorous and advanced. Yet, students do not have as much as a choice, in terms of course selection, especially when compared to AP and Dual enrollment.

Dual enrollment – dual enrollment offers more choice in selecting courses and more opportunity for students. Dual enrollment student have to take full responsibility as a college student. They take college courses like regular college students. By taking dual enrollment courses, students earn credit to affect their high school GPA and college GPA. Dual enrollment students want rigor, but they might be wary of end of course exams – AP, IB, and AICE.

*State College #2:*

AP versus DE – AP students pick courses offered by high school and internal decision to put students in AP. Students who select dual enrollment have to go external to get college credit course or have to desire to take by seeking out their own information.

IB versus AICE – particular programs because these acceleration mechanisms have a specific curriculum to follow. IB program cannot just select courses to complete a program. Students more focused and attend a high school that specifically offers their program.

AP/IB/AICE – if school has a prior eligibility requirement.

Dual enrollment requires eligibility requirement, in regard to testing GPA and college ready. *State College #3:*

Interviewee does not deal with AP, IB, and AICE programs. The profile of dual enrollment student is high achieving high school students in 10th, 11th, and 12th grade. These dual enrollment students are typically involved in extracurricular activities. The College's dual enrollment students are primarily white females; approximately 65%, although the program is beginning to increase in male participation. In addition, the dual enrollment program has a percentage of African American and Hispanic students—in proportion to the geographical population. *State College #4:*

Much of the same commonalities exist between students of AP and dual enrollment. Students participating in dual enrollment should be well organized, driven to accelerated their education, and desiring to get the upper advantage in applying to colleges and universities.

Dual enrollment courses are college courses while student in the IB and AP programs do not get college credit unless they pass the national exams. In regard to dual enrollment, the student is starting their official college transcript. The interviewee notifies dual enrollment students who grade point average is below the college's acceptable level. Often, dual enrollment students who have low grades either cannot handle the course work or have too much other activity besides dual enrollment.

In Florida statute, 25% of college credit must be earned at the institution enrolled in, which serves as a cap to how much credit can be earned through acceleration mechanisms. Students cannot earn more than 45 credits through acceleration mechanisms.

State College #5:

Dual enrollment works better when students are seeking it. For example, the interviewee's college piloted a program that allowed high school students to take college success skills without GPA requirement and without test scores. These students had eight times higher rate of withdrawing than dual enrollment students who met the requirements. The dual enrollment student needs to be individually motivated.

High school site dual enrollment courses are taught by teachers who are identified by the high school to teach dual enrollment. These teachers are excited to teach dual enrollment students at the high school site.

The more students are pushed into dual enrollment the interviewee sees increasing problems. One of the main problems is the high withdrawal rate, which will affect the students later in terms of financial aid, number of attempts, etc. Principals have pressure for their high school to perform well on their school grade. As a result, all of the high school's personnel has the pressure to perform well so students may be encouraged to place students in acceleration mechanisms that would not have been encourage to participate before the changes to school grade. This push has bad consequences for kids because not every student is ready to be accelerated.

Sometimes, students do not have the realization for what they are doing when participating in the dual enrollment program. The main realization that dual enrollment students may not fully understand is the building of their college transcript. *State College #6:*

In the 8th grade students get recommendations from "x" amount of teachers for the IB program. These IB students are the best and the brightest. As a parent, the decision to send a child to the high school where IB is located can be a difficult decision because some IB programs are located in less desirable areas. In many cases IB students are separated from the regular high school student population and generally do not mix with the other high school students. The general student population at the school could benefit greatly from the resources that are provided

to the IB students. It is likely that the IB students will make it in life with or without IB, but the other students could benefit from additional resources, which may ensure success.

There is an inequity regarding money when comparing AP and DE. Incentives are provided to the AP teachers and schools if students earn a passing score on the AP exam. As a result, the high schools put a lot of students in their AP courses and some of these students do not necessarily belong in AP courses. The interviewee has seen, when analyzing transcripts, that these students earn a lower GPA than they would have if they were placed in honors courses instead of AP. At some schools there doesn't seem to be much of a selection criteria for a student to be enrolled in AP courses. Sometimes students who apply to Dual Enrollment are confused because at their school they are registered for an AP course but when they test for Dual Enrollment they score at a lower level. As a result, the student's ego is affected and the student decides to not Dual Enroll because they want the status of being registered in an AP class.

At the interviewee's college there are three types of Dual Enrollment, which include Academic Dual Enrollment, Fine Arts Dual Enrollment, Career & Technical Education Dual Enrollment. Academic Dual Enrollment requires a 3.0 unweighted GPA, and the interviewee looks to see if the student has honors courses or AP courses. Then, the interviewee inquires to see if the student is college ready in all three sections of the CPT/PERT. These students qualify for a full college load. Under the Academic Dual Enrollment umbrella there are different categories. In the Pre-Academic Dual Enrollment the students must have a 3.0 unweighted GPA and earn college ready test scores in two areas on the CPT/PERT. Another category of Academic Dual Enrollment is the Collegiate Dual Enrollment, which is when students have a GPA that is slightly below 3.0, but the student earns all college ready scores in three areas of the CPT/PERT. These students take a combination of high school and college courses on campus. (This category utilizes the exception to the 3.0 unweighted GPA option on a case-by-case basis). There is also the Pre-Collegiate group that has slightly below a 3.0 GPA but only score at college level in two of the three sections of the CPT/PERT. The Fine Arts Dual Enrollment option requires a minimum 2.5 GPA and the test score requirements depend on the college flags for the specific fine arts courses. Students are eligible for college music, dance, theatre, and studio art. The college also offers Career and Technical Education Dual Enrollment where students if they have eligible test scores may register for courses ranging from Automotive Technology and Welding to the Health Related professions. Students must have a minimum 2.0 GPA. However, several areas require higher GPAs. The state also allows students to have access to Career Development and College Success SLS courses. These students have at least a 2.5 GPA. The Articulation Agreement with the School Board requires the passage of FCAT, in order for students to participate in any of the Dual Enrollment Program options.

3. How have colleges and universities changed their use of acceleration mechanism?

*ICUF #1:*

In the past, colleges and universities viewed acceleration mechanisms as a plus across the board. Now, acceleration mechanisms are much more scrutinized due to more research. IB is similar to AICE.

*ICUF #2:*

Colleges and universities have been forced to change how they work with the students with acceleration mechanisms. College admissions is a very competitive to enroll incoming freshman. Of the high school senior population, 17% are willing to consider private universities as their 1st choice while 83% have their first choice as community colleges or state universities system.

In terms of earning college credit from acceleration mechanisms, students compare the number of credit hours they will earn from each college and university. For example if one school awards a student 30 credit hours and a SUS awards the same student 15 credit hours, then the student is more likely to choose the school that awards the most credit. In another scenario, one university awards college credit based on an AP score of 3 while another university gives credit if a 4 is earned on the AP exam. The university that awards credit based on higher scores is at a competitive disadvantage.

A lot of juggling has to be done due to acceleration mechanisms because an 18-year-old student can have 0-60 credit hours. In the private university, they want freshman to bond with other freshman. Yet, accelerated students have a foot in both worlds because they are the aged of a freshman, but they are in classes with upper classmen. They may have challenges socially because they are not mature. The private university's role is making sure students have a satisfactory academic and social life. The matriculation of students into the college's student body is important to private universities.

Acceleration mechanisms cause challenges to colleges and universities because students who have earned a lot of credit will probably not be enrolled in the college for four years. Colleges and universities are judged by how successful in maintaining enrollment, retention, and graduation rates.

*SUSF #1:*

No change in how colleges and universities use acceleration mechanisms. The use of acceleration mechanisms has expanded because acceleration mechanisms have proliferated. As a result, the increased usage of acceleration mechanisms in terms of college credit has created advising challenges due the placement out of common course numbering. In regard to dual enrollment, advisors can advise students to go ahead and take placement test to see where the student is. The bigger change of acceleration mechanisms has been in advisement.

*SUSF #2:*

Colleges and universities have changed their use of acceleration mechanisms because they see a lot more acceleration mechanisms being taken by students. In regard to AICE, this acceleration mechanism is much newer and is increasing.

Dual enrollment has increased and is being pushed. In the past, SUS weighted AP, IB, and AICE a full point while honors and dual enrollment was weighted a half point. Yet, a few years ago the state mandated that dual enrollment weight be equal to AP, IB, and AICE. *SUSF #3:*

Colleges and universities have not changed a whole a lot. Students are taking dual enrollment, which become part of their permanent college transcripts. AP and IB appear only on the student's high school transcript only. Universities do not want a student to repeat a course if they have competency. Course placement occurs at the college. Dual enrollment students may take introductory Math and English and can have sophomore equivalency. The impact of acceleration mechanisms is that the tenure of the student is shortened even if the student is admitted as a freshman.

Colleges and universities are seeing much more acceleration mechanisms because the high schools are increasing acceleration mechanisms. As a result, interesting partnerships between high schools and colleges have developed due to dual enrollment.

Excellence looks many different ways. Students can find success in different venues.

If a school offers it, then a student is expected to have it, especially if a student wants to be admitted Honors College and earn merit scholarships. Students do not repeat course work. Placement tests offered at orientation. A student can look at a website that shows if they earn "X" score on test, and then they will get this equivalent level of courses.

*SUSF #4:*

Yes, colleges and universities have changed their use of acceleration mechanisms. AP started in the 1950's, and colleges embraced it for a variety of reasons. One of the main reasons is that AP offered a more challenge preparation available.

Colleges and universities readily gave credit with open arms in the 1960's. Initially, IB was a tough sell because college faculty did not believe that high school faculty could teach to the level. IB was good about providing curriculum guides and exams so that faculty could adopt.

In addition, colleges and universities are more reluctant to give college credit. In regard to AICE and dual enrollment, colleges and universities give college credit reluctant. Yet, people do not want to fight Cambridge. In Florida, SUS is required to give dual enrollment credit.

Harvard never gives placement credit for any acceleration mechanisms. They view students with acceleration mechanisms as maybe being better prepared due to their participation in these programs.

*SUSF #5:*

Colleges and universities are willing to accept more accelerated course credit from dual enrollment programs, AP/IB/AICE courses, and they use this as a means of attracting high-level students to their campuses. Regardless of whether were earned in AP, IB, AICE or Dual Enrollment courses, students who attempt advanced credit courses will be viewed more favorably in the admission process.

In many cases, students who earn a substantial amount of accelerated credit will satisfy the core required classes, which means fewer students will be enrolled in these courses.

*SUSF #6:*

Colleges and universities do not changed the use of acceleration mechanisms, but have changed the way they look at acceleration mechanisms. Previously, colleges and universities used to not have a lot of students with acceleration mechanisms. As a result, the students who had taken acceleration mechanisms rose to the top. Yet, now there's a proliferation of acceleration mechanisms. Virtually, everyone has acceleration mechanisms. Acceleration mechanisms offer a source of college credit and are indicative of rigor as well as college preparation.

*SUSF #7:*

The interviewee did not know. Articulation agreement between state colleges and universities has changed. General education transfers as block, but no one knows about it. Lot of dual enrollment students come in with 40 credit hours, but not listed on transcript as completed general education. Did they complete general education at the state college? Students should first complete general education requirements so that they can transfer as a block. Then, finish their AA degree. Benefit of 40 hours credit is could have completed general education. By state law, if completed general education courses and listed on transcript, then the student is done with general education, if not an AA degree. Yet, if the general education block is not listed on the transcript as completed, then the college personnel will evaluate course by course and universities have different requirements for general education. Could improve upon and push as an advising issue. Make high school guidance counselors aware of it.

Institutions have an issue about how to treat students with AA degree and lots of credit as FTIC or transfer. FTIC classification benefits, data reporting, etc. In addition, FTIC or transfer classification matters for housing. How fair is it to bring in a student as a transfer student? If a student is a freshman then don't have to meet mapping milestones. Yet, if treated as transfer, then student would have to meet mapping milestones. What is the best way to approach it? How fair is it for students?

*SUSF #8:*

The interviewee does not think we have changed in terms of policy. The change is that more and more students are participating in acceleration mechanisms.

*SUSF #9:*

State of Florida forced to playing field to equal in terms of awarding AP, AICE, IB, and dual enrollment a full point in admissions instead of .5 points for dual enrollment. Five years ago the weighting standard for dual enrollment was changed from .5 point to 1.0 point. AP, AICE, and IB were already being awarded 1.0 pt. for admissions calculated in GPA. How we talked about acceleration mechanisms has changed because people when talking to first generation they have to be clear about differences between acceleration mechanisms. In regard to dual enrollment, people make sure it is beginning of the college career. If a student performs poorly in dual enrollment then certain majors will not accept the

student. In addition, a student's admission might be rescinded due to poor grades in dual enrollment.

In the past, IB has issues with the number of credits the students were bringing to universities. Now, dual enrollment is having issues with the number of credit hours students are bringing into university, especially students with AA/HS degree. The issue with AA/HS students is these students need advising differently, short experiences at SUS, and currently treated as freshman unless take 12 credit hours plus after high school graduation. When students earn an AA degree, then they have to declare a major as well as meet the prerequisites for that major. Colleges have to deal with dual enrollment from admissions to graduation. AP/AICE students are coming in with more credits and are having an impact on funding. Due to acceleration mechanisms, state universities are examining the cost of attendance and how is this being impacted by students bring in a number of college credits earned through acceleration mechanisms.

*SUSF #10:*

The changed use of acceleration mechanisms has been driven by state mandates. In 2008, the state mandated that state universities change the maximum college credit hours awarded for passing acceleration mechanisms' exam from 30 credit hours to 45 credit hours. In 2009, automatic maximum of 45 college credits (test credit) of any combination of AP, IB, AICE, or CLEP awarded to students who passed standardized exams. Yet, these students can add dual enrollment on top of test credit. Now, state universities see students up to 60 credit hours. Another change made was in the summer of 2006, students no longer had to have IB diploma and "4" standard and higher level to be awarded credit. Prior to 2006, students had to have IB "4" standard level exam to get college credit. As a result, universities have seen a rise in students with college credit hours. For example, average of 19 credit hours coming in as freshman, and in 2011 the freshmen came in with an average of 19.41 credit hours.

The final change that has occurred is in 2002 there was a waiver of the summer requirement if a student started out at a SUS out of high school with 9 credit hours. In 2011, the state eliminated acceleration mechanisms summer requirement waiver if student had 9 credit hours.

*State College #1:*

Have not noticed change. At the college, they are working harder at making sure all acceleration mechanisms exams are on file/transcripts so that they can advise properly.

*State College #2:*

1. High school allowed having joint AP/DE – no longer allowed.
2. Integrity of college course intensified mix of students with different eligibility requirements.
3. State university system balking at limiting number of credits bringing in acceleration mechanisms and changing the use of acceleration mechanisms.

SUS more concerned with dual enrollment. Each mechanism has different eligibility requirements.

4. High schools have an increase interest in offering dual at high schools. The Statement of Standards that has been put into rule requires that dual enrollment faculty must meet credentials. Another areas that the Statement of Standards addressed are environment and rigor. In addition, place more meat in rigor of courses, due to dual enrollment being college credit course. Academic integrity must be kept in terms of rigor and course work.
5. Distance education is not allowed for dual enrollment students because college wants dual enrollment students to be in college environment. Yet, the students can take hybrid courses. High schools students are now required to take an online course, in order to graduate high school. Component of distance learning needs to be addressed.
6. Limitation of dual enrollment students to two courses in addition to labs because academic leadership is adamant about dual enrollment being very serious due to high school load and needing to balance college and high school.

*State College #3:*

More parents and students are interested in the dual enrollment program. The main change has been making the program more accessible to everyone, especially home school students. In the past, the high school guidance counselors selected students to participate in the program. Now, the College has their own community recruiting events, and recruitment meetings are scheduled for minority groups, especially in the middle schools to emphasize the importance of the 9th grade GPA.

*State College #4:*

State colleges use dual enrollment as more of an opportunity to bring students to the college environment. Yet, interviewee does not think colleges and universities have changed admission requirements. Students must meet all of their program's prerequisites.

Colleges are encouraging home school students to have an official transcript. College admissions personnel want to see what college classes that they have completed. Some colleges are suggesting that home school students take SAT subject tests in areas that they do not have courses.

*State College #5:*

College is now capping courses due to dual enrollment growth. The College has an Early Collegiate High School on four of its campuses. The ramping number of early college students and dual enrollment students in each section caused concern about the professors and the college. Faculty complained about too many high school students in each section. An early collegiate high school has 100 juniors and 100 seniors so taking seats up at the college campus, and these high school principals wanted to increase the number to 150 juniors and 150 seniors to no avail.

*State College #6:*

The use of acceleration mechanisms is dictated by the Department of Education. In the early years (1974) the interviewee's college partnered with the local School Board and created Vocational Dual Enrollment. Students learned marketable skills and were prepared for the workforce. Since then the Dual Enrollment Program has evolved to include Academic Dual Enrollment and Fine Arts Dual Enrollment as the primary options. However, Career and Technical Education Dual Enrollment also exists on campus where students can take over 30 career related options. In addition Dual Enrollment students who are not at college level in a particular area may enroll in high school courses offered on campus. The high school courses have transitioned from regular to honors courses with the change in the academic level of the students.

4. What are your thoughts about acceleration mechanisms? AP? IB? AICE? Dual enrollment?

*ICUF #1:*

As a whole, acceleration mechanisms are excellent because allows students to educational push themselves. On the other hand, the fear is for the push for credit only and not for the educational purposes. The push for acceleration and saving money instead of educational enrichment over regular students seem to be the driving reason for participation. Yet, students who participate in AP, IB, and AICE are doing more for the educational purposes. With the dual enrollment program, high schools and some colleges promote the program as a way to get college credit and save money. Instead of being sold as AP, dual enrollment should be about getting the college experience. The interviewee believes in the educational program, but the dampening of expectations for these acceleration mechanisms needs to occur.

*ICUF #2:*

In general, from a credit granting standpoint, the interviewee wishes that they would all go way. On the other hand, from the academic preparedness standpoint, AP, IB, AICE, and dual enrollment are great preparation for college. The interviewee wishes students could come in as first semester freshman. The best education is well rounded in terms of academic and student life experience. When students are coming in with advanced standing affects the college's strategic plan. These students are not as actively engaged in student life experiences.

The dual enrollment students are more interested in getting a degree than education. As a result, they are more passive in education and wanting to get it done.

Every 18 year old should be prepared by programs and come in as freshman so that they have a peer group and cohort who have similar interests. Ultimately, these students miss out in cultivating networking skills and social development.

*SUSF #1:*

Acceleration mechanisms have accomplished in large measure what they intend it to, which mainly was to increase the level of secondary preparation. The interviewee hates the driving positioning for admissions and admissions' strategy of the measure of rigor instead of participating in acceleration mechanisms because of intrinsic value. An unfortunate consequence of acceleration mechanisms is the public perception that participation in acceleration mechanisms separates students. For example, an IB student says, I'm an IB student. As a result, a pecking order that has developed based on public perceptions.

The interviewee states you can't get across to parents and the public that curricular decision should be made for the best interest of the individual student. Yet, sometimes more damage can be done by acceleration mechanisms by misplacing a student in acceleration mechanisms that they are not wired for.

Often students are interested in acceleration mechanisms because they want to hang around certain people, go to certain high school, college placement, apply to certain universities, and attend a certain university. When students jump into advanced work, they may lose their excitement and intellectual curiosity. The options can be grinds. No time for other activities because so entrenched into acceleration mechanisms. As a result, students may attain success by attrition.

Individually none of the acceleration mechanisms are different because all accomplish the same, which can be both an upside and downside.

*SUSF #2:*

Students who take acceleration mechanisms tend to be more prepared for college. Students may get credit, but decline the credit, in order to take the course at the college.

AP has the largest number of students, and IB is growing. In terms of the number of students, AICE has a smaller number and is growing. The interviewee sees students who participate in dual enrollment as mainly being for the rural areas of the state. These dual enrollment students view the program as making financial sense and allow them to get a jump on college. Yet, dual enrollment can be more challenging in advising.

When students earn their AA and high school degree at the same time, they may meet the requirements for AA degree, but the students may not have met the prerequisites for their major or not have a major. Another scenario is when a student took one of the Liberal Arts math courses, but the student decided to be a science major, which requires different math courses to be taken.

AP, IB, and AICE recognized all over the country while dual enrollment might not be as easily transferable. The acceleration mechanisms' systems are different.

Having taken acceleration mechanisms is a plus factor in the college application process.

*SUSF #3:*

If school districts can afford it (expense) and have need for it, then acceleration mechanism offers a great opportunity to stretch students intellectually. Yet, acceleration mechanisms are not the only way, but a good way.

Parents are driving schools to offer acceleration mechanisms because of expectations for high schools. In regard to AP, it is a test, and students do not have to take course. Colleges and universities are interested in kids as learners. Test does not measure experience. Showing competency, but in different ways.

How many students take test and not course?

In regard to IB, the program is a standardized international curriculum and is more global. This program is another way to measure success. Hunger thirst for knowledge and competitiveness of college admissions.

In terms of college admissions, prescribed things to be done and is not rigid and formulaic, but it is holistic.

AICE is not particularly significant due to the small number. Admissions are all about having the appropriate rigor and not too much assessment at high school. Students need to be able to do very best and challenging, but not overwhelming.

Dual enrollment is the same as AP because it is specific to each course and each high school. The nice thing about dual enrollment is that first generation students can get feet wet, taste and exposure to be somewhat independent if the student can do dual enrollment on college campus. By going to the college campus, fear is removed from the student. Dual enrollment's niche involves the first-generation students.

*SUSF #4:*

The interviewee encourages every high school student to take as strong as a secondary curriculum as possible. If student is using acceleration mechanisms to accelerate, it may or may not work. The interviewee has strongly supports AP, AICE, and IB because these programs are trying to provide the best education possible.

IB has the College Recognition Taskforce.

Dual enrollment has no governing body. In regard to dual enrollment, it is offering acceleration, but not sure if offering best education possible. Dual enrollment is not just a Florida program and is more popular in states that have the number of students is growing, especially the college going student.

Legislators like dual enrollment because student may not be at a college/university for four years due to the fact that dual enrollment can move through students quicker.

An example of a dual enrollment program is Syracuse Project Advance.

*SUSF #5:*

The positive aspect of acceleration mechanisms is the opportunity they provide for academically motivated students. They are also financially beneficial since students have the potential to earn college credit free of charge.

Adversely, students who are earning 45-60 accelerated college credits may miss out on the full college experience because they will likely graduate earlier. These students may be academically advanced but not emotionally mature. Some other disadvantages to accelerated mechanisms might be the variability of class offerings at different schools. For example, some schools with the economic means to do so may have a larger offering of AP courses. This may not be the case in economically disadvantaged areas.

In regard to dual enrollment courses offered on college campuses, students may not have access to these courses if they do not have transportation. Also, a student who takes college courses after school may have to forgo work obligations and extracurricular activities.

AICE and IB magnet programs have a prescribed curriculum, and students take all advanced courses, which may only be suitable for a student who is gifted in all subjects. The disadvantage to these programs is the burnout factor and the limited social and academic interactions with their mainstream peer group. The advantages of completing these diploma/certificate programs would be the “prestige” factor and the increased access to scholarship opportunities (i.e. Bright Futures).

*SUSF #6:*

The interviewee states that great ways to provide preparation and rigor for the next level. Participation in acceleration mechanisms is a lot more reliable in predicting college success than standardized test scores. AP, IB, and AICE are

curriculum based and students receive college credit from the scores that they earn on the national standardized exam. AP, IB, and AICE have a consistency of curriculum. Yet, the downside of these programs is from a college credit and advising standpoint. Colleges and universities do not know the credit a student is going to receive until the student gets to the college. In addition, the college may not have scores back in time to advise properly.

Students are taking exams earlier in their academic career (7th, 8th, 9th, and 10th). Colleges and universities can purchase names from College Board of students who passed exams or students who have taken AP in earlier grades. As a result, this ability can be used as a recruiting tool.

Dual enrollment is riskiest of the four options because with the other acceleration mechanisms do not earn college grades. No grading is associated with a passing score “3” on the standardized exams. Students just get college credit for passing the exam.

Dual enrollment grades are earned and will follow students throughout their academic career. Students can be affected by their dual enrollment grades in college admissions and can haunt them in applying to medical school or graduate school. Dual enrollment is a great tool, but it is most dangerous in terms of risk and reward factor.

*SUSF #7:*

Overall, acceleration mechanisms are fabulous for students and parents. The interviewee would encourage child to take acceleration mechanisms, in order to have exposure to rigorous course. Also, some risk to the students when participating in dual enrollment. The interviewee works mostly with freshman and mandate freshman to take study skills. Average freshman had a 3.9 average high school GPA. Yet, 6% -7% of these freshmen have academic difficulty because they earned less than a 2.0 GPA. These students do not fully understand college expectations because in high school these very bright students who could cram at the last minute and still pass the course. Sometimes, acceleration mechanisms reinforce high school bad study habits, especially dual enrollment at the high school site.

The interviewee had a conversation with a parent and student when asked about college the student thought college would be easier because the student earned an IB diploma. Students do not understand time management, what it means to study, and attend class when their parents are not there to supervise. These students have blinders on and do not look at nuisances. Sometimes, have risks when students participate in dual enrollment.

AP, AICE, and IB are programs about test credit. The rigorous high school course and your score on test is what we are giving credit for or will give credit. No letter grade because did not take college courses.

Dual enrollment is a college course. What college grants its credit? The letter grade from previous college will show. More confusion from dual enrollment students at high school site exists. In regard to dual enrollment, legislator is pushing more on high school site, but it is harder for students to get a college feel when taking dual enrollment courses at high school site.

Dual enrollment and transfer students might have four semesters of straight “A’s.” A student’s academic standing is based on the university GPA because of so many hours will immediately go to academic probation.

The interviewee does not see a distinction among acceleration mechanisms because students from every acceleration mechanisms have ended up in academic difficulty. These students have problems like other students with transition.

*SUSF #8:*

In general, we may be overusing them. In regard to dual enrollment, many students are taking it at the high school site. State government is pushing it because they view it as fewer courses taken at the state universities. The danger is expanding too much.

In regard to dual enrollment, the danger is students earning poor grades and starting their university level GPA. The student can’t hide their poor grades when they get C’s and D’s. These students should be getting A’s and B’s.

IB, AICE, and AP not so much risk associated with these programs because students are not starting their college GPA. A large percentage of students are not taking AP tests. Instead, they are using AP courses to up their admissions profile, but not the right reason to take these courses.

The programs are great and students participating in them are good students. Yet, we should not be expanding them as fast as we are.

*SUSF #9:*

Acceleration mechanisms are a good thing because students are prepared for college and exposed to rigor. In addition, acceleration mechanisms help students get a taste of a college education and help clarify what is expected. Yet, acceleration mechanisms should be taken in moderation. The push for students taking acceleration mechanisms is too aggressive, especially without having necessary preparation for rigor for students. In addition, the push in acceleration mechanisms has given students full access. In terms of high school grades and dual enrollment, people have concerns about grade inflation. How much are ready for college level work? Sciences and math are ones really questionable about students accelerating too much. With dual enrollment credit, are these students ready to be a junior in college or 2<sup>nd</sup> semester sophomore?

The positive aspects of acceleration mechanism are a motivator for students, save money, and can allow students to graduate early, but would need more research to see if students actual graduating early.

In regard to AP 2010, the most African and Hispanics took the AP exams than ever before. While the participation rate is higher than ever, how many minorities are passing the exam?

Acceleration mechanisms are invaluable for students who are academically ready. Yet, the interviewee does not think everyone should have access, if they are not prepared. However, who should judge if a student should be allowed to take acceleration mechanisms if the students want to challenge themselves. Putting more pressure on high schools and colleges to prepare students, but the focus should be on fixing the foundation that is Pre-K and elementary. Yet, this change of focus would mean turning on its head. The results would take 12 years, in order for students to prepare for AP and other acceleration mechanisms.

The concern with dual enrollment is the courses worth the quality. Students are pushing themselves by taking AP and dual enrollment. How are a bunch of C's in AP and dual enrollment helping a student? Maybe these students ought to take regular classes because they might not be earning C's in these courses.

Desire equal access and trying to fix the middle and the top, but the foundation is rusted out. Colleges are left to try to fix it. Overall, thoughtful, cautious, consideration with acceleration mechanisms should be the mode of operation when advising students.

*SUSF #10:*

The interviewee stated that acceleration mechanisms academically challenge students. AP, IB, and AICE are excellent ways to challenge themselves (students) and prepare for college. Dual enrollment depends on the state college. The question remains if dual enrollment is better prepare them and remains questionable. Not all state colleges are comparable to universities.

Acceleration mechanisms are great opportunity, but the interviewee just does not know if all the credit awarded is good for the student. More students are coming to university with their general education requirements being met. These students are being forced to make decisions: graduate early or pick-up a double major. At 20, students are not ready to go to work or graduate school. These students are on fast track, but students are not ready to make decisions.

Another issue is the competency level that the students have even though they have been awarded credit. Are these credits being awarded are they equivalent to the course that the student would have taken if not awarded the credit. For

example, a student has credit for General Chemistry from acceleration mechanisms, are they ready for General Chemistry II?

*State College #1:*

As a whole acceleration mechanisms are good programs that offer students of a variety of avenues. Acceleration mechanisms at high schools are convenient. Some acceleration mechanisms work better for students than others. Parents and students as whole need to understand participating in acceleration mechanisms is not a decision to take lightly because students need to apply best effort.

IB and AICE are more convenient due to high schools offering courses at selected high schools.

AP students make more of a conscious choice because have a more variety of courses to select from. AP has the perception of being more prestigious than dual enrollment.

Dual enrollment students are wary of end of year test that they would have to take if participating in the other mechanisms. Parents are drawn to dual enrollment because of the credit earned, especially if they know the student will continue on at that local college before heading off to a state university.

*State College #2:*

The whole acceleration mechanism offers a good opportunity for students and is an equalizer, in terms of interests and backgrounds (4 year and technical degree). Acceleration mechanisms are options for all students. Students can decide to participate in program acceleration mechanisms or acceleration mechanisms that allow to students to select individual courses.

For example, students who are interested in the medical field are attracted to taking science courses with lab as dual enrollment courses because they can start working on their prerequisites. In addition, high schools do not have the lab facilities that the college does. Also, courses are open to all students.

Size of public school determines the offering of acceleration mechanisms. Other factors are location in terms of rural or urban and minority population.

Prevalence of acceleration mechanisms is determined by location of high school, size of high school, financial incentives, and geographical area of the United States.

In Florida, percentage of AP courses offered is large due to financial incentives for teachers and high schools that are provided by College Board. In regard to AP, students have to pass the exam to get college credit. Often students do not take the test or pass the test. About half of the students taking the AP exam will earn college credit. Yet, dual enrollment students are tested beforehand to see if they

are college ready. If the dual enrollment students finish the course with a passing grade, then they will earn college credit.

Dual enrollment is harder to explain because the program is not as well known to parents. The program can be more difficult for students to participate in due to students having to come to the college, which can cause transportation issues.

AICE/IB program are at selected high schools.

*State College #3:*

Excellent incentive for our college bound students because high school students can attend college without paying tuition or lab fees—simultaneously while completing their high school credit requirements. The public school students are able to obtain their textbooks for no cost.

Parents are pushing students to enter the program, often when these students are not ready for college from a social and emotional maturity standpoint. Sometimes, a high school student's academic maturity or GPA is not indicative of his or her ability to be successful.

*State College #4:*

Acceleration mechanisms are a wonderful opportunity for students. The interviewee has a serious discussion with parents. In regard to collegiate high school, only have freshmen and sophomores and juniors and seniors are enrolled as early admissions students. These students are accustomed to block scheduling from their high school courses, but they want to go into college courses that are different from these high school courses.

High schools push AP and IB and do not give dual enrollment as much attention. In order to get the word out about dual enrollment, the state college has to have a good relation between the high school and college.

Dual enrollment students to be successful need to be successful, organized, have a good sense of priority, and time management. In addition, dual enrollment students are treated as college students so they should have accountability and responsible for learning the material. Also, these students need to be able to utilize free resources when they need help with their courses. These students need to realize that there will be consequences for not completing homework and not studying adequately for test. Dual enrollment students must know the college calendar and its policies.

If a student performs poorly in their dual enrollment courses, they have a semester of academic grace. If the dual enrollment student does not have a 2.0 accumulative GPA after their semester of grace, then the student no longer qualifies for dual enrollment. Students should realize that dual enrollment is a

privilege not a right. Some of the dual enrollment students participate in the program because they are ready to get out of the high school.

The interviewee is concerned about a student's success in the dual enrollment program when the student's parent is asking all of the questions.

In regard to AP and IB, a lot of pressure is being put on the national test. In the interviewee's opinion, IB and AICE are more rigorous than AP.

*State College #5:*

Acceleration mechanisms are a wonderful opportunity for students. Yet, the concern about acceleration mechanisms is the push of quantity over quality in terms of students. The interviewee does not understand the push for the completion of the AA degree by time the students earn their high school diploma. In addition, as the number of students participating in acceleration mechanisms increases and the more college credits a student earns, the issue of students' maturity comes into question.

Another result of the pressure and increased expectations on students is that students are devastated because they are only graduating from high school with 45 college credits instead of being able to earn their AA degree. Yet, students need to remember college transcripts are forever so it is better to do a few college courses and get better grades.

What is the big push for these students to accelerate?

*State College #6:*

The interviewee appreciates Dual Enrollment, especially the opportunities offered at the interviewee's college. The interviewee stated that, since every student does not fit in a box, students need to have options. Dual Enrollment offers high school students a more mature environment and a chance to accelerate in the areas where they scored at college level. At the interviewees college students may enroll in high school courses in the areas that they are not at college level. The interviewee sees the many advantages that Dual Enrollment offers. High schools are unable to provide flexible scheduling and cannot provide such a wide selection of courses. Dual Enrollment allows students to get their feet wet and exposes them to the college environment. In addition, Dual Enrollment is a good alternative to regular high school. The flexibility of Dual Enrollment regarding scheduling and offerings is more in-line with the demands of everyday life. Dual Enrollment students are not discipline problems at the college. When around older, more mature College students the Dual Enrollment students act in a mature manner and they see themselves as college students. The Dual Enrollment students do not have a dress code, which attributes to making them feel more like college students.

With regard to AP there needs to be better screening. IB has strict standards and only allows students in their program who meet their designated admission criteria. Students who become disenchanted with IB tend to apply for Dual Enrollment.

5. What do you see the future for acceleration mechanisms? AP? IB? AICE? Dual enrollment?

*ICUF #1:*

The interviewee believes that IB and AP will be continued to be watered down because high schools are pushing students into these two programs. The salesmanship of IB is leading to this result as well as being deemed as the “sexy” program among the other acceleration mechanisms. Yet, these programs offer an amazing educational opportunity. The climate has become “all about the ends instead of the means,” which means getting the college credit and being admitted into colleges.

In regard to dual enrollment, the future depends on how the move of program to the high school site and the courses being college courses. The fear with the increase offering of dual enrollment at the high school site is that the dual enrollment courses keep their academic integrity. The students’ experience with dual enrollment is widely varied. The key for dual enrollment will be to develop more consistency in being managed as the same the ones on the college campus. Yet, this issue will be more of a challenge because of class shortages at the high school site so there is an increase need for dual enrollment courses to be offered at these locations.

The stage of the AICE is at the more of a wait and see phase. Currently, the AICE program is the best one out there in terms of the acceleration mechanisms. In terms of AP, the schools are making the curriculum easier. The educational system is struggling to find its way as whole, which can be reflected with issues surrounding acceleration mechanisms due to lack of government support.

*ICUF #2:*

The interviewee sees the future for acceleration mechanisms as that they will continue to expand more because high schools will want to offer programs, in order to “keep up with the Joneses.”

The economy dictates many things because parents look at a free year of college, which will minimize loans.

In terms of financial considerations, over longer term students benefit as having a true freshman year, true sophomore year, etc.

Due to the college admissions' competitiveness, acceleration mechanisms are perceived as competitive advantage by parents and students.

Do these programs become watered down due to demand? Students and parents demand opportunity to participate in acceleration mechanisms.

In the past, only certain segment of the population went to college. Yet, the current environment the accepted thought is that everyone is to go to college. As a result of everyone going to college, they now spend time remediating. The standards of acceleration mechanisms will decrease.

*SUSF #1:*

Academics are proliferating. The STEM initiative drives all sciences and math courses and technical programs. The STEM initiative wants to include technical courses not academic courses. There's pressure to add technical courses to the academic core (SUS) admissions. A lot of flexibility is given to high schools in terms to submitting courses to be included in the academic core of SUS admissions. High schools struggle to differentiate themselves, and they will not care for the restrictions. Yet, these technical courses are an option for a student to have career option. On the other hand, the K12 have to access and observe the procedures that are in place for these technical courses to be considered as SUS admissions core.

In regard to the beginning of IB in Florida, IB was started as a desegregation strategy. In order to desegregate in the 1960's, the educational system created magnet programs, in order to draw high powered students into historically black high schools.

In the 1980's, the secondary accountability movement was built on student accountability and was at building level or school level in an effort to compete you (administrators) start introducing other options. Everyone feels like they have to have something to offer. High schools' personnel go to the middle schools to recruit top students to their high schools.

AICE started due to the ebb and flow.

*SUSF #2:*

The future for acceleration mechanisms are driven by the legislators. AP, IB, and AICE are driven by funding. Students are in and out in four years. Professors may feel students have not mastered material. People have different viewpoints about acceleration mechanisms. The interviewee does not see it slowing down because more and more students are in the programs.

*SUSF #3:*

The interviewee does not see acceleration mechanisms going away. Students are interested in presenting their best self and being competitive. In addition, students are looking to be more rounded: both academically and non-academically. Higher education is no longer a luxury. In fact, higher education is essential, which increases the need to be competitive.

Students, parents, and high school counselors are overly prescriptive about excellence. Students need to choose acceleration mechanisms that are the most appropriate as well as possible and available to the student. Excellence looks many different ways.

The college admissions decision is made based on the context of the school and environment when evaluating a student's strength of schedule. Yet, students have the sense of only one right college and university. The attitude seems to be full bliss or glory. Yet, students can be happy by attending several colleges and universities.

Hopefully, students will have awareness over time. Budget piece has significance because universities are as open as state budget allows it to be. Colleges and universities are not looking to deny students. For example, students really are applying to be considered and not admitted because students can also be wait listed. Embrace if exist. An expectation of college is to have someone make choices. Do not assume someone else's choices are your choices. Never guarantee acceptance. Colleges and universities have a global perspective (100,000s) versus locally perspective and are really different.

*SUSF #4:*

The interviewee has concern about AICE and IB because it takes extra funding for AICE and IB, and a little bit for AP. All states need to continue to fund these programs. States will continue to fund dual enrollment because government does not think dual enrollment cost as much, due to two products for the cost.

The costs of AP, IB, and AICE are teacher training, class size, and curriculum supplies. In addition, there is a cost of being an IB and an AICE school. IB is growing around the world. Cambridge is not going away. AP is so entrenched. The interviewee thinks that IB and AICE might have tough row to hoe. Getting Exxon and Mobil to fund education should be an alternative. The interviewee mentioned the US 27th world commercial.

*SUSF #5:*

In general, the growth of acceleration mechanisms will depend on funding, regardless of what type of mechanism we are discussing.

With state subsidies continuing and growing at current levels, the interviewee sees more growth potential for dual enrollment due to increased demand and competition for college admission. In more recent years, the frequency of

students earning the AA degree through the dual enrollment programs is increasing. This is happening in part due to the fact that more collegiate high school programs are being offered at local colleges. Students want the freedom of choosing college classes and having the guarantee of earning college credit upon successful completion of the course. Fiscally, dual enrollment programs probably make more sense in the long run. However, the growth of the dual enrollment programs may only continue as long free books and full tuition reimbursement remain part of the program.

The interviewee does not think the AICE program has generated as much awareness and clout as the IB program, at least not in the United States and definitely not in FL. This could create potential challenges for the continued existence and growth of the AICE program over time. The honors “magnet” programs like AICE and IB should elevate academic standards for the entire HS and may be effective in terms of integrating students from different socioeconomic and cultural communities.

*SUSF #6:*

Unfortunately in northeast Florida, the high schools are pushing students to this because of high school grade and money saving mechanisms by the state.

Future consistency among all acceleration mechanisms is a concern. Acceleration mechanisms bring new challenges. For example, students are finishing 11th grade with their AA degree, and at the same time, these students are looking to be early admitted into SUS as a senior in high school. There are unforeseen circumstances with the proliferation in acceleration mechanisms. Student issues that arise with having AA and high school diploma is where to house them, scholarships, and students not wanting to take standardized tests (ACT or SAT). Students are being pulled into acceleration mechanisms. Parents are in a “curriculum war” because parents are willing to move so that their child can be zoned for a high school that has a certain acceleration mechanism.

*SUSF #7:*

In regard to the future for acceleration mechanisms, a lot depends on funding. Follow the money and you will know. AP was pushed because of the money.

Money will determine the future of the programs. Don’t think it will go away because popular program and a great benefit to the citizens of Florida and vital part of high school.

*SUSF #8:*

The interviewee thinks the future of acceleration mechanisms is that they will be expanding and keep expanding. The state universities get more students

graduating more with associate's degree. The state university system will have to come to grips with the increase of students earning their associate's degree and high school diploma at the same time. Do we treat them as freshman or transfer students? Should we be classifying student with AA. This issue is becoming a problem. What are we going to do with these students because these students only coming for two years.

*SUSF #9:*

The interviewee thinks that the future of acceleration mechanisms will be more of the programs being offered. In addition, interviewee believes more research will be conducted about acceleration mechanisms. Also, interviewee feels that greater number of students will participate in acceleration mechanisms as well as students earning more college credit via acceleration mechanisms. More dual enrollment students will be earning high school diploma and AA degree simultaneously. The final thought of the future of acceleration mechanisms is that more 8th grade students will start taking AP classes.

The interviewee does not think enough research has been done on the outcomes of acceleration mechanisms. Another issue that will need to be tackled in the future is how to treat students who earn AA degree and high school diploma simultaneously. For certain majors, these students are treated as freshman.

More magnet programs will grow. State colleges will grow in political clout. SUS not interested in offering dual enrollment. The program is good, but many more questions come out of it. Dual enrollment will grow a lot more, in terms of expansion. Dual enrollment's eligibility requirements depends on if a regular dual enrollment program. Early College dual enrollment programs have certain GPA requirements.

AP will experience expansion. In terms of the future of AICE, the interviewee does not know. There's not enough understanding of the benefits of the program. Yet, if more research is not conducted about AICE, then the program size will stay about the same.

*SUSF #10:*

The interviewee does not think acceleration mechanisms will go away. They will continue to grow because students and parents demand it. Students feel they need acceleration mechanisms to be competitive in college admissions.

Funding may become an issue because the state is paying twice for a lot of things. In terms of Bright Futures, students are not penalized for having credit. Students are retaking courses even though they have dual enrollment and/or test college credit.

In regard to money, parents encourage students to take acceleration mechanisms because it is free. Yet, due to the economic times, Tallahassee is starting to look at the cost of acceleration mechanisms. Currently, in terms of 2009 excess hours surcharge, acceleration mechanisms are exempt from this requirement.

The university's academic council of associate dean that encompasses all colleges has developed a timely graduation policy/plan that encourages four years' bachelor's degree when students attend full-time. Any acceleration mechanisms are exempt.

High school diploma/AA degree with 60 credit hours students still could be at college for 4 years to earn a bachelor's degree. These students developmentally are not ready to make decisions. The high school/AA degree is the most worrisome. If students want to stay four years at university, then they would need to triple major and minor.

If students have 45 test credit hours, then advise students to retake some credit. HS/AA degree students' admissions applications are evaluated as freshman and their high school record is part of the evaluation. Yet, if student is not accepted as a freshman, student is evaluated as transfer and is referred to college (major) then if admitted it will be as a transfer student. The prerequisites for the specifics major must be met by the student.

In regard to the AA/HS diploma, the state exempts acceleration mechanisms in the calculation of excess hours, but the federal government does not the number of hours can affect the student's financial aid/Pell Grant. Once a student passed 120 hours, then the student is filing for extensions for federal aid and is constantly appealing to get aid.

*State College #1:*

The future of acceleration mechanisms will be influenced by the state legislature. Changes to school grade including acceleration mechanisms participation and performance has increased the demand for acceleration mechanisms. High school administrators are overloading AP for the numbers rather than looking at the academic level of students.

State will need to address dual enrollment funding, in terms of textbooks, FTE and tuition. Students are transferring high schools, due to the opportunity to earn credit. They will transfer to a high school so that they can participate in the acceleration mechanism of their choice, in order to earn more college credit.

IB and AICE are localized to area offered and participation rates are affected by the opinion of the surrounding areas. Guidance counselors will need to market these programs pros and cons and the value of the programs overall.

*State College #2:*

Finances and budgets of state will affect the future of acceleration mechanisms. The growth of DE has a tremendous impact because students don't pay tuition, lab, and fees. From a financial standpoint dual enrollment is not an effective program. As a result, community colleges are not interested in growth of dual enrollment, due to financial implications. Florida Partnership affected because has given millions of dollars to high schools and teachers. Even at low performing high schools, a teacher can earn \$2000 for one student passing a test.

A concern about acceleration mechanisms is that outcomes vary. IB and AICE offered at more limited basis because not offered everywhere. Both of these program based acceleration mechanisms already have curriculum so the high schools have already made an investment in these programs, which means these programs are not as affected by budget constraint.

The state gives so much money to the school districts for AP and DE, which may cause these acceleration mechanisms to be more affected by budgetary factors.

*State College #3:*

Dual enrollment will continue to increase in numbers due to our high school grades being determined by acceleration mechanisms' participation and performance. As this happens, Colleges may have to cap the program due to staffing issues.

*State College #4:*

The interviewee hopes that the state can continue to support dual enrollment. Yet, the dual enrollment program probably needs to be modified. For example, in Idaho the student pays part of the tuition. Maybe, Florida needs to look at other state's dual enrollment policies and how they structure dual enrollment. Dual enrollment is a wonderful opportunity for parents and students so the state would face a lot of pressure from constituency if changes were made to the program. In addition, the interviewee believes dual enrollment would be next in line because of the changes in Bright Future's funding.

The lottery affects a lot in terms of funding for education.

School districts have an issue with rising cost of textbooks. For example, one school district is keeping a library of books. Another example is a school district made a change to the purchasing of textbooks by negotiating good prices with an independent bookstore.

*State College #5:*

The interviewee sees more limitations on dual enrollment in Florida because of the expense and maybe even AP will be affected because the state pays expense of AP.

Yet, dual enrollment reduces duplication of courses so probably saving it some money. On the other hand, the rise in dual enrollment is costing the state more money. In addition, the textbook situation with the constant changes in textbooks,

rise in cost of textbooks, and rise in the use of access codes is costing school districts a considerable amount of money that they do not have the state funding to pay for these increased costs.

Some acceleration mechanisms went from targeted population to access to all students. Too much push for students to participate in acceleration mechanisms and too much cache that ends up pushing students who should not be pushed because they are not ready to be accelerated.

Kids who are persistence will be successful in acceleration mechanisms. However, acceleration mechanisms are not for everybody and do not need to be.

*State College #6:*

Dual Enrollment is here to stay primarily because it saves both the state and parent's money. The unfortunate piece of Dual Enrollment is that colleges are not getting reimbursed at a reasonable rate for the services and courses they provide to the high school students who Dual Enroll.

The interviewee's school board reimburses the College. The interviewee's Dual Enrollment program has nearly everything a charter school would have in terms of financing from the School Board. As a result, the interviewee's College receives 95% of the FTE the school board would have received for their 450 public school students who participate in their Dual Enrollment Program. Because of the economy, parents seem to be more interested in Dual Enrollment. Yet when considering Dual Enrollment, parents should not put money first. Students and parents need to consider the student's ability and if the student is mature and able to handle the responsibility of college courses and the college environment. The last thing the interviewee wants is for a student to negatively impact their college transcript.

6. What would you tell students and parents about acceleration mechanisms? AP? IB? AICE? Dual enrollment?

*ICUF #1:*

The interviewee would tell students and parents to choose to participate in acceleration mechanisms for the right reasons: being successful, grow student intellectually, and okay to struggle doing what is educational for the student.

*ICUF #2:*

If a child has a choice between standards, honors, and acceleration mechanisms and if they can manage then acceleration mechanisms will prepare them for the next step. In addition, acceleration mechanisms will financially help them.

College has to ensure that they enculturate them into the college experience. An individual has the choice to participate in acceleration mechanisms. If going to miss out on extracurricular activities, then a student needs to look at it to decide

for themselves the best option because so much is learned outside the classroom. Students need to weigh different things to determine the best course of action.

In terms of IB, students are more academically prepared. There was a time when acceleration mechanisms served more to the “haves” than the “have-nots.” Acceleration mechanisms will give first generation low-income students more opportunity.

In the admissions’ training, the staff is very clear about talking to parents about curricular options and their equal weighting in the admissions process. No advantage is given to a specific acceleration mechanism. All accelerations mechanisms are of quality, and all have advantages and disadvantages. In addition, acceleration mechanisms should not be used as admissions strategies. Using any acceleration mechanism as a strategy for admission to a particular university is a bad idea. The importance of understanding and explaining clearly to families the difference between rigorous secondary preparation and acceleration into college-level work (dual enrollment) is critical.

In regard to acceleration mechanisms, each family should choose intelligently. Curriculum choice is a family decision that should always be made with the student’s well-being at its center. Parents feel like they are getting a pitch about acceleration mechanisms. Yet, the pitch is probably unavoidable. In addition, for the first time, parents have to make a decision of consequences that they will not know the outcome or effects for years to come. Parents are faced with the making this decision about acceleration mechanisms in the beginning of March when their children are middle schoolers, especially in eighth grade. This decision has impactful consequences for their children’s future. Once decision is made, investment is extraordinary. For example, IB parents buy in to the program because they do not want to think that they feel guilt over the decision. No greater force than parental guilt.

Growing as family through the college admissions process because they build expectation that if their student does well then things will work out for them. Their child paid the price and expects to get in to the college of their choice. If their student does not get into their first choice of colleges, then this event may be the first time life did not work out as everyone thought and the family goes through the stages of grief: anger, shock, and reasoning.

In terms of high school principals, the school grade has made principals operate in a high stakes game because if principals get into a bad situation, then their career as a principal is done. For example, if a principal’s high school goes from a D to an F, then the principal will be done being a principal.

The interviewee hates what is being done to secondary education, especially requiring them to do some things that have no educational value. Yet, all is being driven by Tallahassee by people who do not have the perceptiveness to be making these educational decisions. As a result, the district level is not getting help.

*SUSF #2:*

In regard to AP, IB, and AICE, students challenge themselves but if they do not pass an exam then they do not get college credit and no risk is involved. On the other hand, with dual enrollment, the student begins their college record. Colleges and universities rescind offers of admission if the students are not in good academic standing (2.0 GPA +). Transfer students must have a 3.0 GPA.

High schools may push students, but students need to be responsible. If students are not ready for acceleration mechanisms, the interviewee would encourage students to take honors.

*SUSF #3:*

Embrace if exist. An expectation of college is to have someone make choices. Do not assume someone else's choices are your choices. Never guarantee acceptance. Colleges and universities have a global perspective (100,000s) versus locally perspective and are really different.

*SUSF #4:*

In working with a number of high schools in their IB and AICE programs, interviewee states that these students in acceleration mechanisms are the happiest high school students and have the very best preparation for college. In addition, these students want to take most accelerated course possible.

When Duke reviews an admission application, they have the student's transcript and the student's high school's profile. Did the student take the most challenging courses in the subjects that their high school offered? If the answer is a no to one or two questions, then the student will not be admitted.

Problem in the US is that college is not for everyone, and secondary schools are not preparing students for career. Do not want regular college preparatory curriculum. IB or AICE program if had drithers because meets general education requirements at 97% of colleges and universities. IB or AICE is most apt to require that of students. Yet, can do it through AP and Dual enrollment.

The problem with dual enrollment is the standards issue.

IB is coming out with something similar to Global Perspectives because they are not going to be left behind.

Take as many across the curriculum courses as possible if taking AP and dual enrollment. The more acceleration mechanisms the student takes the better.

In 1963, a regular student would have 45 minutes a night of homework. Now, not sure even acceleration mechanisms students are doing this much homework.

*SUSF #5:*

I tell students to only attempt the courses that they know they will accelerate in and not to overwhelm themselves with too many advanced classes unless they can really handle to extra course work. Although, an admissions officer will

unofficially factor the rigor of course work into the admissions equation, if a student performs poorly in these classes there will be a blemish on their record. Typically, I will also suggest that they defer to their high school counselor who knows the students' overall academic and social skill set.

*SUSF #6:*

The interviewee would say the same thing that he mentioned earlier. Weighting among acceleration mechanisms is standardized. The interviewee has no preference among the acceleration mechanisms. The interviewee wants students to challenge themselves as much as makes logical sense and at every level.

The risk of dual enrollment is that the student needs a 2.0 transfer GPA. Colleges and universities do not judge students based on curriculum offered at high school. For example, one high school may only have honors courses while another high school has IB.

*SUSF #7:*

Do not talk to parents early enough. Take most rigorous high school courses can and do not fluff off senior year. Work very closely with advisor.

In terms of dual enrollment, ideally, student would work with high school advisor and college advisor.

In regard to IB and AP, the interviewee does not know if same level of advising is there and puts the burden on high school counselor to know how credit works at college level.

Most rigors are in the acceleration mechanisms. All acceleration mechanisms are good programs. Distinction between testing programs and dual enrollment is that dual enrollment begins college GPA, and dual enrollment has greater responsibility.

The interviewee stated some institutions allow students with 18 plus credit hours that had lots of C's and D's and did not get in study skills plus was allowed to remain in dual enrollment. A college does a student a disservice if allowing student to remain in dual enrollment when not doing well in the program.

Overall GPA including dual enrollment GPA is a factor for a student to get in their major. Dual enrollment GPA can hurt them in their quest to get their major. One semester can screw up their life plans. Have to make the right choices early to get into their first major may have to go to 3<sup>rd</sup> or 4<sup>th</sup> choice major.

At the high school level, acceleration mechanisms more emphasis on articulation between high school and college. What to study, what to major in, and what career?

*SUSF #8:*

The interviewee tells parents that no program is preferred because give the same bonus points for each one. Secondly, the interviewee informs parents and students that with dual enrollment the student begins their college GPA. If a parent does

not think their student is ready for college, then the student should not participate in dual enrollment. If a student performs badly in dual enrollment, then they restrict their admissions. The interviewee does not particular see differences among acceleration mechanisms. In regard to dual enrollment, all courses if passed earn college credit. Yet, dual enrollment courses at the high school site are not in college environment and not quite the same oversight and control. In addition, these courses are not quite what it should be. These dual enrollment courses at the high school site are taught by high school teachers who are certified by the state college, but not the same as college teachers.

*SUSF #9:*

The interviewee would tell parents that if a child is prepared then take advantage of it. Then, the interviewee explains the difference of programs. AP, IB, and AICE courses earn high school grade and college credit when exam is passed. In regard to dual enrollment, a student begins the college GPA and earns college credit when successfully passing the course.

*SUSF #10:*

The interviewee would tell students and parents that more communication with parents, programs, and colleges/universities is important. Parents want students to be more competitive and save money, and they are not aware of the effects or consequences of acceleration mechanisms. Students do not want to graduate early and are retaking courses in math and science.

Students wish they had not taken so much acceleration mechanisms credit, but they were forced into it. Students are retaking credit because they are not automatically prepared for the higher course. The interviewee would tell students and parents not to be in such a rush. Make a good decision based on student academic situation.

*State College #1:*

Concentration on the advising standpoint and need to make decision about participation seriously. Students participating in acceleration mechanisms need to read ahead, be responsible, ask for help, and apply extra effort.

Location affects selection of acceleration mechanism because often student will go to the school that they are zoned. As a result, they will select an acceleration mechanism based on the ones that their zoned high school offers.

Parents want comfortable and convenience in acceleration mechanisms as well as one that is applicable to the student. In addition, parents want acceleration mechanism that will assist them in moving through program and decrease cost of an eventual college degree.

IB and AICE program – location and convenience play a factor in the selection of these programs. If students can ride a bus to the program or if a parent can drive

their son or daughter to the high school, then they would maybe select an acceleration mechanism outside their zoned area.

*State College #2:*

Acceleration mechanisms offer students an opportunity to expand on courses that may not be offered at the high school. In addition, acceleration mechanisms provide more course variety. These courses may be geared toward future career interest. These mechanisms can save students time and money. At collegiate HS, students can earn an associate's degree.

By participating in a dual enrollment program, students gain exposure to the college environment as well as the responsibility and time management that college courses require. They realized the different demands of college. These students need to be more focused and have more maturity because by earning a bad grade their transcript will be affected.

Students that participate in acceleration mechanisms are better prepared for college due to their exposure and having a better idea of what they want to do.

*State College #3:*

Important point to make is that students are college ready in all areas: English, Reading, and Math. Students have until they reach the 12-credit-hour rule to show they are college ready by college placement test results. The suggested course load is a maximum of two classes for the first semester and online classes are discouraged in the beginning. But, homeschooled students who have already taken Florida Virtual School courses are exceptions if the parents push for their student to enroll into online courses. Another point to make is the fact that dual enrollment grades are permanent, and student will have two separate transcripts: high school and college. The College always seeks the parents' assistance in evaluating their own child's readiness to participate in dual enrollment.

*State College #4:*

The interviewee explains current criteria for the dual enrollment program and does not make comparisons between AP and dual enrollment unless parents and students initiate it. In addition, the interviewee spends time with the parents and students advising them about earning the college degree as well as discussing the high school equivalency list. The interviewee stresses to students about taking advantage of free resources.

*State College #5:*

The interviewee would tell students and parents that acceleration mechanisms are a wonderful opportunity, but acceleration mechanisms are not for every student. In terms of students, quality over quantity, this means that if they are prepared for acceleration mechanisms, then they should concentrate on earning A's and B's instead of the number of courses taken.

*State College #6:*

The staff working in the interviewee's Dual Enrollment Office does not promote one accelerated mechanism over another. The interviewee's Dual Enrollment Program provides flexible scheduling, a combination of high school and college courses, access to writing, reading and math labs for the Dual Enrollment students. It also offers 24/7 online tutoring, and provides a mature environment.

Dual Enrollment is an option for students but students need to be focused and responsible because poor decisions will affect future financial aid and poor grades will remain on the student's college transcript.

7. Would you like to add anything else about acceleration mechanisms to the discussion?

*ICUF #1:*

The interviewee felt that nothing else needed to be added to the discussion.

*ICUF #2:*

The interviewee did not have anything else to add to the discussion.

*SUSF #1:*

The interviewee likes acceleration mechanisms and thinks that they enhance secondary preparation, which is all that they were expected to do. The interviewee is in support of rigorous secondary preparation. All about the high school experience that is so formative.

50-year cycle reinvented comprehensive high school of the 1950s, which was locally controlled by the school district. The school superintendent made all the decisions involving the school district. Each school district is so unique that the best people to make decisions about the school district is at the local level because these people know what is best for their community.

No Child Left Behind is a disaster.

*SUSF #2:*

In the future, there could be changes amongst the different colleges and universities in how they award college credit to acceleration mechanisms. The interviewee likes the current consistent credit policies provided by the ACC exam by credit policies.

*SUSF #3:*

No. Secondary pushes it more than higher education. Acceleration mechanisms do not look the same at every school. Students need to weigh different strengths.

*SUSF #4:*

Look at the top US secondary schools. For example, Bronx HS of Science has faculty-designed courses that can be stronger than AP, AICE, IB, and dual enrollment. If going to a strong high school, a student may not need acceleration mechanisms, due to the type of high school and its students.

Acceleration mechanisms are most valuable to boosting public education, which is the majority of high schools.

In regard to the history of acceleration mechanisms, the 1st school to offer IB in Florida was St. Petersburg High School, which is located in Pinellas County. In the northern part of Pinellas county, young people resided while in the southern part is where retirees lived. As a result, the southern part of Pinellas County had dwindling numbers of students, which is the reason that St. Petersburg HS brought in IB to attract students who lived in the northern part of the county.

In terms of Alachua County, three public high school existed: Buchholz HS that had UF faculty's children and upper income, Gainesville HS was the established high school, and Eastside HS was on the poor side of town and predominantly minority. Bussing and segregation became a challenge. How do you get west side white high school students to go to Eastside HS? The introduction of IB became the answer.

In Panama Beach, Rutherford HS had IB and Bay HS wanted to compete so Sherry Reach, an economics teacher at the time brought AICE into Bay HS.

Collier County will offer AICE in 7 – 8 high schools in their district.

In the western part of the US, acceleration mechanisms have made inroads into high schools because of the need to boost high school' college preparatory curriculum.

*SUSF #5:*

The interviewee did not have anything else to add to the discussion.

*SUSF #6:*

The interviewee had nothing else to add to the discussion.

*SUSF #7:*

The interviewee had nothing else to add to the discussion.

*SUSF #8:*

The interviewee did not want to add anything to the discussion.

*SUSF #9:*

The interviewee stated that the research is critical because too many decisions are being made by people who do not understand the issues and not in the field. The state government has politicized the process as well as has legislative these programs. Parents and students feel good about participation in acceleration mechanisms. Yet, often parents and students do not understand ramifications of acceleration mechanisms. They make decisions with too little information. People do not recognize the value of these programs.

*SUSF #10:*

No one size fits all. The problem seems to be the programs are designed for one size fits all. In terms of math and science, people need to be sure students are ready for the next courses. The problem in advising students is that some students are over confident and others are not confident. Parents are pushing students not to take credit over. Advisors want what is best for the student. The university runs data on student success rate every year, especially test credit. Then, the university shows the results at Orientation.

*State College #1:*

Dual enrollment changes are that schools offering more dual enrollment courses on the high school campus, due to transportation costs to the local college and to help colleges with seating availability.

Some high schools are promoting the program to 8th graders and targeting 9th graders. School grade has caused participation to be out of control. Some school districts are offering pre-application to identify 8th graders. Cost, convenience, and location are factors in selecting acceleration mechanisms. Students transfer to high school that has a Dual Enrollment Academy and getting out of AICE and IB programs because students can almost earn an AA degree before graduating high school.

*State College #2:*

Florida does a great job with acceleration mechanisms. All public school districts participate in dual enrollment and AP. The state is fortunate that a variety of mechanisms is supported and is in statute, which signals serious backing. By having the acceleration mechanisms in state statute, formalization exists about how they operate and how we improve on them.

*State College #3:*

There continues to be a very significant increase in dual enrollment participation, which also helps with the increase in the number of completers for the high schools and the college. Fifty-four (54) dual enrollment students completed their AA degree with over half of these students being first generation college students.

*State College #4:*

The interviewee does not have anything else to add to the discussion.

*State College #5:*

The interviewee had nothing else to add to the discussion of acceleration mechanisms.

*State College #6:*

The interviewee had nothing to add to the discussion.

8. If you could change anything about acceleration mechanisms, what would it be?

*ICUF #1:*

The change that the interviewee would make about acceleration mechanisms is for people to stop overselling the program by the way that they pitch the particular program. In addition, he would keep the education and the rigor of the program. The main intent is if the course is supposed to be at college level, then give a college class. Acceleration mechanisms can be a full complement to the academic rigor of the high school. At its pinnacle, do not water down the programs.

*ICUF #2:*

The interviewee would change the credit granting aspect of acceleration mechanisms. Acceleration mechanisms would be used as academic preparation and not used as advanced standing.

Yet, this change defeats much of the programs' purpose, especially dual enrollment. Students would be active participants instead of passive participants. The best scenario for students is to have peer group and have similar experiences, which makes for better college experience and life experience. However, this scenario is more applicable to four-year private schools.

In terms of dual enrollment, most students want to get a degree while colleges are more interested in a student getting an education.

*SUSF #1:*

The first change would focus on college credit. The interviewee is a big believer in institutional exceptionalism – the responsibility of each college/university to provide students with a degree-seeking experience that reflects the character and mission of that particular institution. As a result, the interviewee would limit college credit. If educational system is not careful, the specific university credential is being turned into a 120-hour generic college bachelor's degree. The outcome is an awardee of credits instead of the institution, which is being minimized. The awarding of college credit by acceleration mechanisms has taken away the "XYZ" university degree and what it means to earn it from that "XYZ" university.

The second change to acceleration mechanisms would be to take them out of the high school accountability mix. The quality of high schools should be under local

control and the responsibility of the local district in meeting the needs of their community. Accountability should be taken away because the local community should be able to judge if their educational system is meeting their needs. Educational decisions should not be made from a distance because people cannot do it well at a distance due to their lack of perspective pertaining to the specific communities. In the past, the local school district's superintendent ran the show. Currently, too much federal and state decisions, policies, and interference impact the local school districts' policies and operations. As a result, there is not enough local influence and decisions being made because of how the current educational environment functions.

*SUSF #2:*

The interviewee would change the credit receiving the scores to be the same. Colleges and universities have a challenge in that they receive 30,000 applications for admissions. They will admit 12,000 students, in order that 6,000 students will come to the university. As a result, the college receives all of the scores reports for every student. Another complication is that AP scores reports does not use the student's social security number. As a result, the students who do not use their social security number more difficult to match their test scores.

*SUSF #3:*

The interviewee would have students be clear about long term goals about major and career and how acceleration mechanisms affect these goals. In addition, students would have clear understanding on what remains on high school transcript and collegiate transcript. AICE, IB, and AP are only on high school transcript.

*SUSF #4:*

The interviewee would put a base on what it would take to get into dual enrollment by requiring certain test scores and to ensure quality.

For example, a flagship university's Director of Honors College stated that some dual enrollment student came to take the SAT and the state paid for their dual enrollment courses and paid for their remedial courses. No ground level standard for dual enrollment.

IB, AP, and AICE should let anyone who wants to take courses and only ones who can pass the course not the exam. These programs can help students be better prepared. If challenged some of the students, then they can do the work. Often, high schools cap enrollment.

*SUSF #5:*

The interviewee would like to see accelerated mechanisms continue to be offered for truly gifted honors students. However, in order to maximize the college experience, students should limit the number of credits earned to a maximum total

of 45 credit hours. The college/campus experience is an important life ritual that molds the student a lifelong learner who is capable of becoming an integral member of our society. For that reason, a balance must be sought between the need to advance academically, versus the opportunity to accelerate through courses for the sake of graduating from college earlier.

*SUSF #6:*

The interviewee would apply homogeneously increased standards to take acceleration mechanisms. All students are not ready for acceleration mechanisms. Due to acceleration mechanisms being a springboard to college and a money savings, the number of students taking acceleration mechanisms has increased. The proliferation of acceleration mechanisms has caused many unforeseen acceleration mechanisms. The way to gain control of acceleration mechanisms is by raising standards. The interviewee did not want to cap the number of college credit hours because some students may be appropriate to have AA degree at the end of 11th grade.

*SUSF #7:*

The interviewee would change the eligible GPA to continue in dual enrollment. Wish more could be done on advising, in regard to acceleration mechanisms. Working with each individual student on their plan of study and college attending, prerequisites, and general education, if do not know major focus on general education piece. Yet, students often self-advise.

In addition, the interviewee would like an articulation officer at every high school so they could explain the different avenues and what jobs are out there and their earnings so that students could see range of options.

Attendance and burn out after high school.

*SUSF #8:*

The interviewee's preference would be to have more oversight at high school and state college with admission level, in order to make sure the students should be in the program. In addition, make sure the appropriate level of rigor is being taught in those dual enrollment courses.

AP and IB are third party and abide by international standards and are audited and monitored, which is different than dual enrollment because of the auditing and monitoring elements. The interviewee is starting to see more AICE because of a local high school is starting to offer the program.

*SUSF #9:*

The interviewee would change the foundation of education in this country with the focus being place on children from 0 to Pre K through primary school. In addition, identify student who have ability to succeed academically regardless of

background and ethnicity. People are downplaying the value of the collegiate experience. College is less about the intellectual pursuit instead it is about getting a job. More people pushing technical and vocational occupations because they are essential.

*SUSF #10:*

The interviewee would recommend making a change to the awarding of college credit by raising the test scores that would be needed for college credit. For example, the interviewee would suggest raising AP score to “4” as well as the IB score. Premier institutions like Harvard require a “5” on the AP test for a student to receive college credit while some schools don’t award college credit for test credit exams.

In 2011, 82% of students admitted have more than a 4.0 GPA, which is down for 86% of students in 2010.

The interviewee prefers to work with test credit than dual enrollment because inconsistency among state colleges. Transfer students with their AA degree already have to have their prerequisites. As a result, the transfer students are not splitting up sequences, especially in Math and Sciences. Whereas, dual enrollment students may have done half of the Chemistry sequence or half of the Math sequence. In regard to test credit, all had to pass a similar tests while dual enrollment has inconsistency.

Liberal arts need more seats in General Education. Enrollment Management had to shift money to upper level. Acceleration mechanisms are affecting the jobs of enrollment managers, due to students bringing in so much college credit.

Resources Center Management – every college is responsible for their own budget. For example, engineering student is not taking as many courses if any with the College of Arts and Sciences.

*State College #1:*

Funding programs because fine line between recruiting dual enrollment students and have less class availability for regular fee paying students at the local college. Same amount of funding for dual enrollment as a regular fee paying college student is needed. Have more people who are qualified and credentialed to teach science courses at high school. Marketing of programs and telling the truth about rigor. In addition, telling the differences between the acceleration mechanisms as well as explaining how the earned college credit will be counted to their degree or cause excess hours. Basically, making sure that the student’s best interests are at the center of advising about acceleration mechanisms.

*State College #2:*

The main change would be directed at awareness and information. Public high schools need to do a better explaining the benefits to parents and students to that they can understand the effects of participating in acceleration mechanisms. Public high schools need to account for the cultural differences and parents who are from out of country. Parents have difficulty understanding because they have never been exposed to acceleration mechanisms and never have heard of it. They do not comprehend the scope of opportunity that dual enrollment can provide their children. Currently, there's no well – oiled information piece about acceleration mechanisms. However, new bill requires high schools to do a better job in providing information and informing the general public about acceleration mechanisms.

High schools push AP, and students hear about AP by word-of-mouth. School districts work in silo. They need to help parents by providing information about acceleration mechanisms, but either they do not have time or they do not understand acceleration mechanisms fully. Students are not using dual enrollment because they do not understand the program. AP provides financial award so schools promote AP. Yet, would schools promote AP if no financial incentive existed? High schools care mainly about student participation in AP and not about students passing the test. Another suggested change would be placing more emphasis on students passing AP test and not just having students participate. Do a better job of getting students to pass AP exam.

Another change would be the way programs supported or funded as well as have equality in exposure, funding, and cultural.

*State College #3:*

Prohibit or limit changes in the college textbooks. The College holds two articulation meetings annually and school district representatives mention the exorbitant textbook cost to their school districts, continuously.

*State College #4:*

The interviewee would not change the GPA requirement for the dual enrollment program. The GPA would be 3.5 for juniors and seniors. School districts allow rising freshman take 6 credit hours in their second semester, but this exception is rare and reserved for only gifted students. Rising sophomores are allowed 9 credit hours while rising juniors and seniors can take 15 credit hours.

The interviewee would expand the opportunity for Early Admissions to more students. Early Admissions students attend the college full-time and are college level. The interviewee would allow juniors to participate in Early Admissions students.

*State College #5:*

The first change that the interviewee suggested would be to the school grade, in order decrease stress on schools. The interviewee believes that the education system should let the educators look at how to determine a way to ensure quality high schools, high school teachers, etc. The system is too testing crazy and too much pressure on high schools and its personnel. The educational system does not let a new program run awhile to see if it works instead it wants to get magic results overnight. Problem is not with acceleration mechanisms.

In regard to acceleration mechanism, the playing field should be level if paying incentives to one acceleration mechanisms' teachers then the other acceleration mechanisms' teachers should be paid. In addition, if a high school receives incentives for the performance of an acceleration mechanism, then the high school should get money for the performance of other acceleration mechanisms, too.

When teachers love their field, then they teach at a high level.

*State College #6:*

The interviewee would require college instructors to notify the Dual Enrollment office if a student is not doing well. That way the Dual Enrollment counselors could intervene and counsel the students as well as keep the student's parents in the loop by communicating with them.

## Appendix I

### Similarities of AICE and IB Similarities of AICE and IB

The researcher felt that a chart illuminating the similarities of AICE and IB was important due to the fact of lack of comparison between the two programs. Both of these programs have a prescribed curriculum as well as the connections listed in the chart.

<b>Similarities between AICE and IB</b>
"both IB and AICE students take AP courses and take AP exams." HS #11
"Cambridge and IB students are in 85% and above group in standardized tests, which is a baseline for the programs." HS #11
"in IB and AICE, students have to be cross-curricular and highest in academics." HS #7
"if students want to get into an elite college, then the student should take IB and AICE." DO #3
"another area of contrast is that IB and AICE have a more international flavor/perspective." DO #2

#### Appendix J

College Benefits of Participating in Acceleration Mechanisms College  
Benefits of Participating in Acceleration Mechanisms

To highlight the several college-related benefits in participating in acceleration mechanisms, the researcher created a chart that listed the benefit and its corresponding specifics. The purpose of the chart was to impart the information in clear and precise manner. These benefits range from college admissions to college transition to college degree attainment.

College Benefits	Specifics
College Admissions	HS #11 stated, “students participate in AP, IB, AICE, and dual enrollment so that they could be competitive for college. No choice, if you want to go to four year university.”
	HS #12 declared, “students participate in acceleration mechanisms because they want to have a good high school transcript to get into a good college....”
	HS #2 cited, “if a student wants to attend an Ivy League, international university, or an upper tier university, then the interviewee would encourage the student to participate in AP or IB.”
	HS #4 made a comparison between AP and dual enrollment students in terms of their college decision by stating, “Yet, the AP student may desire the national exposure that AP has while dual enrollment students want to stay in-state so they are not concerned about the lack of national exposure of the dual enrollment program.”
	SUSF #5 stated, “regardless of whether were earned in AP, IB, AICE or Dual Enrollment courses, students who attempt advanced credit courses will be viewed more favorably in the admission process.”
	IC #1 commented, “students use acceleration mechanisms to show that they are qualified to succeed, to prepare for rigor, and for the classroom experience.”
	Culross and Tarver (2011) singled out IBDP when discussing selective universities admissions and how the program enabled IBDP students to benefit from its participation during the admissions process.
Exposure to college environment	SUSF #9 declared, “...acceleration mechanisms help students get a taste of a college education and help clarifies what is expected.”
	SUSF #3 commented, “the nice thing about dual enrollment is that first generation students can get feet wet, taste, and exposure to be somewhat independent if the student can do dual enrollment on college campus. By going to the college campus, fear is removed from the student.”
	HS #1 asserted, “dual enrollment students want to go to the college campus to experience the freedom as well as having to learn to be their advocate.”

	Dual enrollment students learn college standards, procedures, and strategies to be successful in college by their experiences in the program before they graduate from high school (Karp, 2012).
College transition	All acceleration mechanisms can play a vital function in instilling the knowledge in becoming a successful college student to students enrolling in acceleration mechanisms, in order to assist the students in accomplishing their educational or career goals (Karp, 2012).
	When students become familiar with college expectations earlier, they have a more accurate representation of how to effectively transition from secondary to postsecondary (Lipp, 2011).
	Dual enrollment is employed as an approach to easing students in the changeover from being a high school student to becoming a college student (Karp, 2012).
Earning college credit	One of the main motivational factors for enrolling in acceleration mechanisms is the opportunity to earn college credit prior to high school graduation by either passing a standardized exam or completing a dual enrollment course (Lipp, 2011; Wakelyn, 2009).
	HS #6 commented, “if students do a combination of all three (AP, AICE, and dual enrollment), student can begin earning college credit their second semester of their freshman year and sophomore year.”
Scholarship opportunities	When AICE students earn the AICE/Cambridge diploma, then students automatically qualify for the Florida Bright Futures Scholarship (Shaw, 2011). Same is true for the IB Diploma.
	SUSF #5 commented, “the advantages of completing these diploma/certificate programs would be the “prestige” factor and the increased access to scholarship opportunities (ie. Bright Futures).” Referencing IB and AICE diplomas.
	Approximately a third of colleges and universities utilize participation in AP as one of the benchmarks for earning an academic scholarship (Wakelyn, 2009).
	DO #2 declared, “another advantage to participating in acceleration mechanisms is that students have college scholarship opportunities when they are involved in these programs.”
Minimize the cost of college tuition	SE #1 stated, “this program allows student to have the opportunity to enroll in college at no cost to get a taste of college.”

	<p>When students earn college credit by passing the AP exam, then they can lower the cost of their college tuition (Iatarola, Conger, &amp; Long, 2011).</p>
	<p>Dual enrollment and AP can decrease the cost of college tuition by cutting the time to degree (Klopfenstein, &amp; Lively, 2012; Lipp, 2011).</p>
	<p>HS #9 declared, “acceleration mechanisms affect the students financially...”</p>
Shorter time to degree	<p>SUSF #7 commented, “acceleration mechanisms can decrease time to degree.”</p>
	<p>SUSF #7 stated, “freshman with acceleration mechanisms credit at early registration can sit down and plan a degree in three years with a program of study.”</p>
	<p>SC #5 declared, “in addition, students can start farther along in terms of their college courses after graduating high school.”</p>
	<p>AP and DE give students the opportunity to earn college credit, which can allow the student to graduate with their bachelor’s degree in a shorter time period (Klopfenstein, &amp; Lively, 2011).</p>
	<p>When students pass the AP exam and receive college credit for their AP score, then the student can decrease the time to degree (Iatarola, et al., 2011).</p>
Better chance to degree attainment	<p>Robinson (2011) discovered that dual enrollment students enhanced their persistence in reaching their educational goals. In researching AP, Wakelyn (2009) observed that students who took both the AP course and exam were significantly more likely to graduate with a bachelor’s degree in five years or less than compared to their contemporaries</p>

## Appendix K

Logistical Considerations of Selecting Acceleration Mechanisms  
 Logistical Considerations of Selecting Acceleration Mechanisms

In the research process, logistical factors become a major consideration in selecting to participate in primarily in dual enrollment, which complemented the study's comprehensiveness by delivering vary perspectives. The chart highlights the logistical aspects and its effects on students' involvement.

Logistical Factors	Effects
Transportation	<ul style="list-style-type: none"> <li data-bbox="930 1297 1372 1486">□ SUSF #5 declared, "in regard to dual enrollment courses offered on college campuses, students may not have access to these courses if they do not have the transportation."</li> <li data-bbox="930 1528 1372 1684">□ If a student has the transportation, then HS #5 stated, "students want to go to the college site so that they can experience college as well as have freedom."</li> </ul>
College schedule	<ul style="list-style-type: none"> <li data-bbox="930 1768 1372 1915">□ SC #6 avowed, "the flexibility of dual enrollment regarding scheduling and offerings is more in-line with demands of everyday life."</li> </ul>

	<ul style="list-style-type: none"> <li>□ DO #1 asserted, “in regard to dual enrollment, students can have a difficult time fitting in dual enrollment courses with their high school courses.” Yet, the high school master’s schedule influences a student’s decision.</li> </ul>
High School Schedule	<ul style="list-style-type: none"> <li>□ DO #2 avowed, “the student may decide to select a dual enrollment class due to the fact that his high school’s master schedule will not allow him to take the two AP classes he desired.”</li> <li>□ a student may not always have the option to select another acceleration mechanism if a scheduling conflict occurs due to the options offered by the high school as well as its master schedule’s limitations.</li> </ul>

## Appendix L

### Why High Schools Choose to Offer AICE and IB

### Why High Schools Choose to Offer AICE and IB

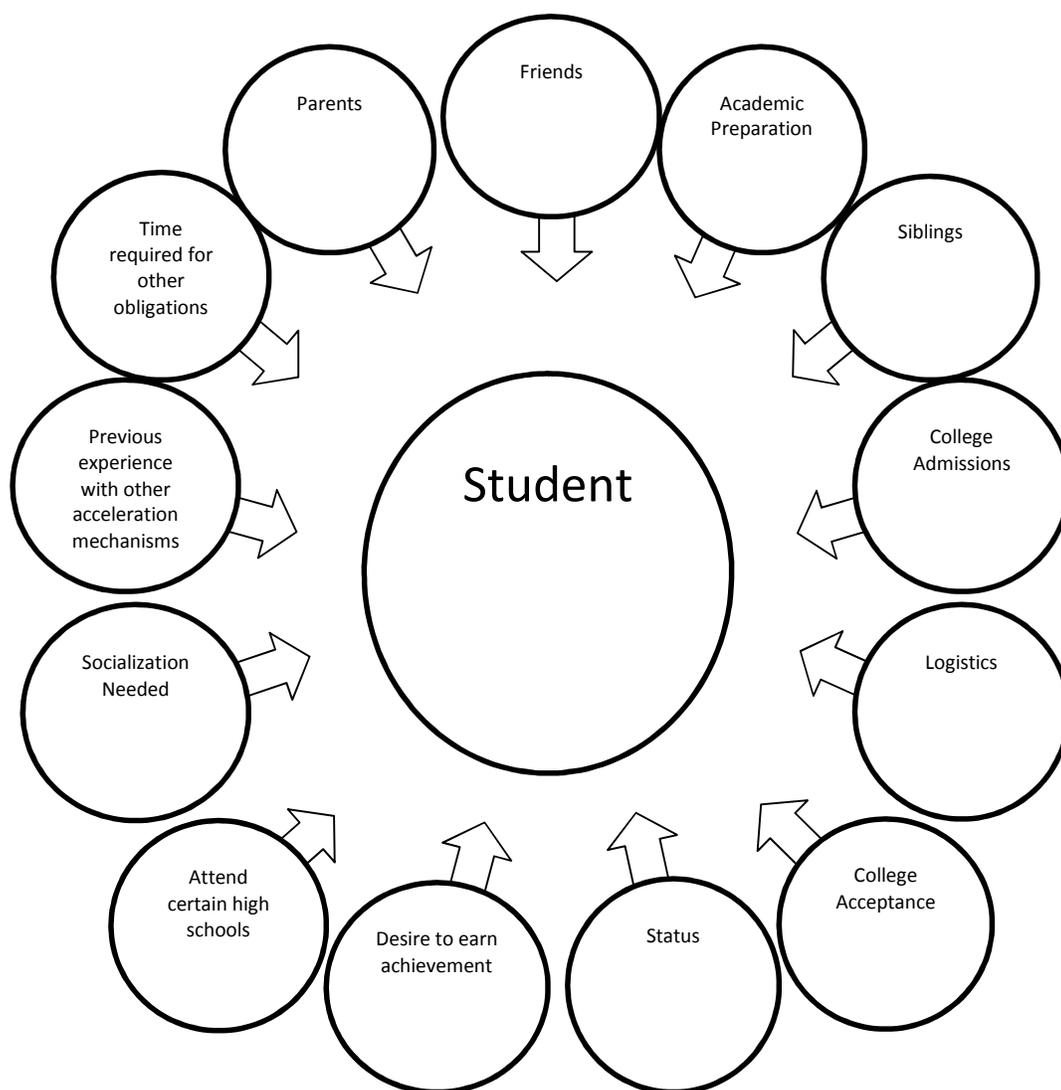
The researcher thought separating information about the rationale of high schools in deciding to offer IB and AICE was important. Yet, the information was placed in the appendix in attempt for it not to be lost in the body of the dissertation. While the research was focused on dual enrollment, the researcher believed information about AICE needed to be emphasized due to the lack of information about the program.

Why high schools choose to offer IB and AICE?
HS #11 stated, “magnet programs like IB and AICE attract like-minded students. As a result, the students are part of a smaller community with the resources of a large high school.”
The impact that AICE and IB had on a school was emphasized when SUSF #5 cited, “the honors ‘magnet programs’ like AICE and IB should elevate academic standards for the entire high school and may be effective in terms of integrating students from different socio-economic and cultural communities.”
These programs are successful if a school has the resources and the need for these programs.

## Appendix M

Factors Influencing Students' Selection of Acceleration Mechanisms  
 Factors Influencing Students' Selection of Acceleration Mechanisms

Factors influencing students' selection of acceleration mechanisms were numerous and varied in nature. All of the factors were important in understanding the reasons that students decided to participate in acceleration mechanisms. By placing the information in a diagram, the variability of factors influencing the decision to be involved in acceleration mechanisms has been emphasized.



## Appendix N

Comparison of Acceleration Mechanisms Comparison of  
Acceleration Mechanisms

Acceleration Mechanisms				
Category	AP	IB	AICE	DE
Entity Type	Not-for-profit membership organization	Non-profit educational foundation	Higher Education Association with Cambridge University	Higher Education Association with Individual Colleges and Universities
Governed	Elected board of trustees	IB board of governors	Cambridge University Assessment Group Board	Individual colleges and accreditation agencies
Awarding of college credit	Examination based	Examination based	Examination based	College Based

Curriculum	Course based	Program based	Program based	Course based
Course selection flexibility	Medium-high	Least	Medium	High
Financial incentives	Yes	Yes	Yes	No
Academic strengths	Certain areas	All areas	All areas	Certain areas

## Appendix O

### Analysis of SWOT Analysis of SWOT

The SWOT Analysis exhibited an exhaustive listing of the strengths, weaknesses, opportunities, and threats for each of the acceleration mechanisms. The reasoning for the chart of the SWOT Analysis forms was to reveal a comprehensive assessment of acceleration mechanisms that was not practical in listing the information in the study. The SWOT Analysis was employed to provide comparison of dual enrollment to AP, IB, and AICE.

Advanced Placement	
Strengths	Weaknesses
<p>AP students gear their course selections toward their academic strengths – HS #10 23. “C” or lower grade in an AP class is eventually erased – HS #3</p> <p>Teachers and students can be compared on the national level – HS #3</p> <p>AP is very accessible – HS #4</p> <p>Students are not penalized for not passing the AP exams – HS #4</p> <p>AP is rigorous and is only for top 20% of student body – HS #10</p> <p>AP is entrenched – HS #12</p> <p>High schools get money and funding – HS #10</p> <p>Designation of taking AP courses gives students’ self-esteem and self-assuredness because they are working in higher levels. – HS #5</p> <p>AP concentrates on the idea of student conducting research as well as discussing and presenting their ideas – HS #2</p> <p>Pros of AP are national recognition, rigor of reading, time management, and pushes students to think at different level – HS #10</p> <p>Springboard curriculum and pre-AP courses – HS #5</p> <p>AP has broad themes, and students have to seek answers for what theme is, what the motivation is, and why the effects or events occurred – HS #5</p>	<p>Even though students may pass an AP exam are awarded college credit, universities may recommend the student take the course because of analysis about success in subsequent course work – SUSF #10</p> <p>“The rigor of AP course depends on the subject” – ICUF #1</p> <p>“Some students are placed in AP who do not belong” – SC #6</p> <p>“Some schools with economic means to do so may have a larger offering of AP courses. This may not be the case in economically disadvantaged areas” – SUSF #5.</p> <p>“Downside of these programs is from a college credit and advising standpoint because colleges and universities do not know credit a student is going to receive until the student gets to college and colleges may not have scores back in time to advise properly.” - SUSF #6</p> <p>“Lot of pressure is being put on the national test” – SC #4</p> <p>“Interviewee believes that AP will be continued to be watered down because high schools are pushing students into AP” – IC #1</p> <p>“High school administrators are overloading AP for the numbers rather than looking at the academic level of students.” SC #1</p> <p>“Interviewee does not know if same level of advising is there and puts the burden on high school counselor to know how credit works at college level.” SUSF #7</p> <p>“Some schools don’t award college credit for</p>

<p>Intent of AP curriculum is to question. – HS #5</p> <p>Best teachers get funded when AP students pass their program’s exams – HS #11</p> <p>When passing the AP exam, students are awarded college credit, which helps them in reducing the time to degree as well as saving money on tuition (Iatarola, Conger, &amp; Long, 2011).</p> <p>Research discovered that AP incentives greatly affected the performance on college placement tests and promoted college enrollment (Iatarola, et al., 2011).</p> <p>AP assisted students in beginning their career quicker (Klopfenstein, &amp; Lively, 2012).</p> <p>AP monetary incentives are utilized to give teachers bonuses and training costs (travel, lodging, supplies, etc.) (Barnard-Brak, McGaha-Garnett, &amp; Burley, 2011).</p> <p>Benefits of AP are possible smaller class sizes than in college as well as having more time and monitoring of progress (Speroni, 2011a).</p> <p>AP’s curriculum is standardized, which can be regarded as a benchmark of quality (Speroni, 2011a).</p> <p>Claims that AP was the first national curriculum (Klopfenstein, &amp; Lively, 2012).</p> <p>AP program has been in existence in the United States for over 50 years and is the most popular acceleration mechanism (Shaw, 2011).</p> <p>AP is viewed favorably because its courses and syllabi are developed by teachers, its exams are scored by external parties, and AP’s incentive structures positioned students and teachers on the same side (Wakelyn, 2009).</p> <p>AP exams are evaluated against students’ grades in comparable introductory college courses (Wakelyn, 2009).</p> <p>Approximately 33% of higher education institutions utilized student’s participation in</p>	<p>test credit exams...Premier institutions like Harvard require a ‘5’ on AP.”</p> <p>“Main disadvantage to these programs is that students may put in a lot of work and may not pass the test” SE #3</p> <p>“AP exam does not have a good passage rate” - SE #3.</p> <p>“Scheduling issue is caused because a student must choose between AP classes that are now offered at the same time.” DO #2</p> <p>“The amount of work of AP, IB, and AICE affect the students because it limits their social life to a degree.” – HS #11</p> <p>“Students are under stress.” – HS #12</p> <p>“Nationally, the AP course has a designation, but increasingly if a student pass a test with a 3, then they may have to retake the course when enrolling in college after graduating high school.” – HS #5</p> <p>“...often AP teachers may not be able to go in depth due to the breadth of subject matter that they need to cover with their students.” – HS #5</p> <p>Variances in AP enrollments and programs have been discovered between poor rural school districts and suburban school districts – (Barnard-Brak, McGaha-Garnett, &amp; Burley, 2011). In addition, school’s ethnicity and socioeconomic status affects AP access and course offerings (Lipp, 2011).</p> <p>Minority student encounter barriers from high school personnel bias in recommending students to students feeling isolated as well as unprepared compared to other students to program’s emphasis on standardized assessment and achievement to school system’s early tracking system (Walker, &amp; Pearsall, 2012; Barnard-Bak, McGaha-Garnett, &amp; Burley, 2011) .</p> <p>In regard to AP teacher’s credentials, teachers do not have the requirement of having a</p>
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<p>AP as a criteria for scholarships (Wakelyn, 2009).</p>	<p>background in the subject matter that they teach (Klopfenstein, &amp; Lively, 2012).</p> <p>Normally, AP course selection usually consists of college introductory survey courses, which</p>
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<p>Research conducted in California and Texas has shown AP scores to be strong predictors of college performance (Wakelyn, 2009).</p> <p>College Board provides training for teachers, in terms of content knowledge and instructional practices to best address students' needs (Hill, 2011).</p> <p>AP students perceived the program to stretch them intellectually (Hill, 2011).</p> <p>AP has been viewed as a medium of education reform in that the program increases rigor of the curricula as well as prepares students for college (Lipp, 2011).</p> <p>Pre- AP courses and AP courses encourage the development of critical thinking skills and learning strategies in students (Lipp, 2011).</p> <p>AP schools receive extensive support from College Board, in terms of publications, information, and resources (Lipp, 2011).</p> <p>College Board conducts thorough professional development training opportunities at the national, state, and local by hosting conferences, workshops, and summer institutes to school personnel (Lipp, 2011).</p> <p>AP has influenced curriculum alignment from middle school to high school to higher education (Lipp, 2011).</p> <p>In terms of college performance, AP students have higher GPAs and degree completion rates than non-AP participants (King, 2010).</p> <p>Students benefit from AP participation in that they can study subjects that they are interested in and attain skills, which will assist them in their future career (King, 2010).</p> <p>AP program is known as rigorous college level curriculum (King, 2010).</p> <p>AP has positive impact on students from the low socio-economic status high achieving group, in terms of persisting in college (Klepfer, &amp; Lively, 2012).</p>	<p>emphasizes breadth of content over depth of knowledge (Klopfenstein, &amp; Lively, 2012).</p> <p>AP teachers voiced concern about the effect of AP expansion on the classroom performance and on the AP passage rate (Wakelyn, 2009).</p> <p>Students have noted that their college academic performance suffered because they were burn out from placing so much focus on academics in high school (Hill, 2011).</p> <p>Minority students often identify AP students as being smart and do not view themselves as being in that category even though they would be recommended to participate in the program (Buice, 2012).</p> <p>AP program does not lend itself to multiple intelligences as well as special learning styles (King, 2010).</p> <p>AP students have been categorized as a homogenous group that consists of like-minded academically gifted learners who prefer academic activities to normal teenage social interactions (King, 2010).</p> <p>High achieving AP students fill their schedule with AP courses, which means these students sacrifice pursuing other interests and extracurricular activities both during the school day and after school (Milburn, 2011). Numerous variables that can be attributed to student's ability to graduate from college are often difficult to isolate from the impact of the student's AP participation on their collegiate career, which makes measuring the effect of AP difficult to ascertain (Lipp, 2011).</p> <p>"The costs of AP, IB, and AICE are teacher training, class size, and curriculum supplies. In addition, there is a cost of being an IB and an AICE school." –SUSF #4</p> <p>Some colleges and universities do not award college credit for passing the AP exam (Hill, 2011).</p> <p>Some colleges and universities have raised the passing score of awarding credit (King, 2010).</p>
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<p>AP has become known as an indicator of quality in high school education (O'Brien, &amp; Devaries, 2012).</p>	<p>AP has the lowest rate of students earning postsecondary credit among the acceleration mechanisms (Comparison of Florida's Articulated Acceleration Programs, 2011).</p>
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<p>Minority and low income students who took AP courses increased their chances of graduating college within five years when compared to students who did not participate in AP (O'Brien, &amp; Devarics, 2012).</p> <p>High achieving students attributed AP benefits to college acceptance, college credit, and college transition (Milburn, 2011).</p> <p>AP courses are often taught by the best teachers because of their years of experience as well as their knowledge and skills (Buice, 2012).</p> <p>AP students form a community of close knit friends who have the same academic goals (Buice, 2012).</p> <p>New partnership with Cambridge to deliver the new course, Global Perspectives.</p> <p>“AP curriculum revisions are more focused on advancing 21st century knowledge and skills through global perspectives, interdisciplinary and applied learning.” – V #1</p> <p>College Board overhauled the curriculum of its courses by placing emphasis on utilizing best practices to increase the depth of knowledge or course content (Klopfenstein, &amp; Lively, 2012).</p> <p>AP Potential gives high school personnel direction on making recommendations for students to participate in the program.</p> <p>AP has the largest participation rate among acceleration mechanisms so it has the biggest market share.</p> <p>AP offers online courses.</p>	
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Opportunities	Threats
<p data-bbox="332 268 834 405">“A concern from higher education relates to AP course specificity and the emerging needs for knowledge and skills for the 21st century workplace.” – V #1</p> <p data-bbox="332 449 834 623">“Broaden the definition of acceleration mechanisms and the focus to include career and technical. The need for accelerating technical skills and areas exists, in order for students to compete.” –</p>	<p data-bbox="857 268 1370 390">“The state gives so much money to the school districts for AP and DE, which may cause these acceleration mechanisms to be more affected by budgetary factors.” – SC #2</p> <p data-bbox="857 434 1360 556">“Look at the top US secondary schools. For example, Bronx HS of Science has faculty designed courses that can be stronger than AP, AICE, IB, and dual enrollment.” – SUSF #4</p> <p data-bbox="857 600 1344 630">“AP, IB, and AICE are driven by funding.” –</p>

<p>DO #3</p> <p>MOOC's – if acceleration mechanisms utilized their online courses to connect students worldwide, especially students in small towns and rural communities globally.</p>	<p>SUSF #2</p> <p>“The interviewee has concern about AICE and IB because it takes extra funding for AICE and IB, and a little bit for AP.” –SUSF #4</p> <p>“Allocations and increased state regulations affect the acceleration mechanisms.” – DO #2</p> <p>“How viable is it to offer acceleration mechanisms? A school district's tax base comes into play because most school districts have to monitor numbers and budget and may have to take back allocations while richer school districts look to their tax base.” – DO #2</p> <p>National prominent quality high school curriculum (Klopfenstein, &amp; Lively, 2012).</p> <p>Some colleges are considering not awarding credit for passage of the AP exam</p> <p>If colleges and universities changed their utilization of acceleration mechanisms in the selection process of college admissions, then acceleration mechanisms would be affected. In addition, if college modified or restricted the awarding of college credit for acceleration mechanisms, then acceleration mechanisms would not be as attractive to some students.</p> <p>If students had other means to demonstrate challenging themselves academically than participating in acceleration mechanisms, then the significance or prestige of acceleration mechanisms would change. For example, if college or universities accepted MOOC's or activity on Khan Academy, then students would be interested in this alternative means of validating their readiness for college.</p> <p>If universities developed a series of MOOC's to take for high schools students to be considered for admission into the specified university than the weight of participation in acceleration mechanisms would be weakened.</p>
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International Baccalaureate	
Strengths	Weaknesses
<p>“IB are exam based, and students can earn high school credit without college credit” – SE #3</p>	<p>“The main disadvantage to these programs is that the student may put in a lot of work and may not pass the test” – SE #3</p>
<p>“IB and AICE are good options. These programs are a focused couple year curriculum and highly rigorous” – SE #2</p>	<p>“...he has strong reservations about IB, due to the aftermath of the program. This program places too much emphasis on academics, and the students have no chance for socialization” – HS #3</p>
<p>“AICE and IB magnet programs have a prescribed curriculum, and students take all advanced courses which may only be suitable for a student who is gifted in all subjects.” – SUSF #4</p>	<p>“In regard to IB, the curriculum is so regimented few students can perform in all areas” – HS #9</p>
<p>“IB and AICE students attend a particular school with like-minded students” – SE #3</p>	<p>“...IB offers a small variety in teaching and teaching styles. Students have to follow a certain path, and there is no flexibility or room for exploration” – HS #9</p>
<p>“IB students are around serious students so they have the ‘best learning environment’.” HS #12</p>	<p>“The negative part of IB is the kids have the mindset that we weed them out, but actually the students do it on their own.” – HS #10</p>
<p>“The advantages of AP, IB, and AICE could be that the scheduling is all at high school.” – SE #2</p>	<p>“An economic indicator is present in the participation of acceleration mechanisms. More affluent parents who are not expecting their children to help out with expenses have their children participate in acceleration mechanisms.” – HS #12</p>
<p>“If going out-of-state, the college credit will be recognized.” – SE #2</p>	<p>“The IB and AICE students really sacrifice and experience stress as well as have anxiety attacks.” – HS #11</p>
<p>“When the student passes AP, IB, and AICE, the school and teacher get incentive funding.” – SE #2</p>	<p>“People are ‘IBelistic’, and this belief is a misconception because these people are too idealistic about what program should be.”- HS #12</p>
<p>“IB has through roof passage rate with 80% passage rate.” – SE #3</p>	<p>Students conveyed that their participation in IB caused them to have amplified stress that was caused by the demanding academic workload and stress to succeed in the program (Hill, 2011).</p>
<p>“IB has the same standards worldwide, and students or individual IB programs can be compared globally.” – DO #2</p>	<p>IB participation is limited to high achieving or academically gifted students (Speroni, 2011).</p>
<p>“IB students have to do international projects. As a result, they are more aware of the world around them because they are forced out of the box due to international projects.” – HS #10</p>	
<p>“IB requires research, analysis, and synthesis of information” – DO #2.</p>	

<p>“In addition, both programs offer independent diploma that carries considerable weight with colleges in terms of admissions” – DO #2</p>	<p>IB is facing growing pains, in order to ensure the same elevated eminence of the IB brand the organization has assigned certain restrictions in the provision and content of the program</p>
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<p>“In IB and AICE, students have to be crosscurricular and highest in academics” – HS #7</p> <p>“IB promotes international skills so they require a fluency in a foreign language” – HS #10</p> <p>“IB assesses students in more than one way” – HS #10</p> <p>“Pros of IB are as follows: develop amazing study skills, lowest amount of college credit earned is at least 20 college credit hours, bonding among students as whole in social and academic terms, and graduate with pride, esteem, accomplishment even if the student did not graduate with IB diploma.” – HS #10</p> <p>“IB viewed as the top program because in all courses students are handling rigor at the college level.” – IC #1</p> <p>“The advantages of completing these diploma/certificate programs would be the “prestige” factor and the increased access to scholarship opportunities (ie. Bright Futures).” – SUSF #4</p> <p>Examination of IB’s curriculum has shown that its intention is to instill in the students the skills and knowledge required to contend in the global market place (Resnik, 2012).</p> <p>Another appeal of the IB program is that it bestows an international credential than just a mere state certified credential (Resnik, 2012).</p> <p>IB is viewed as being the gold standard in education throughout the world (Resnik, 2012). IB harnesses this image through various organizational activities such as: ensuring quality control of IB schools via IB accreditation process, increasing the number of colleges and universities that acknowledge the IB diploma, unremitting curricular and pedagogical development, judging student’s learning by external assessments, and adapting to diverse national curricula and educational traditions.</p> <p>IB has a corporate identity that has become known as internationally branded product</p>	<p>(Resnik, 2012). As a result, IBO placed limitations on how progressive and innovate the schools can be.</p> <p>“The disadvantage to these programs is the burnout factor and the limited social and academic interactions with their mainstream peer group.” – SUSF #4</p> <p>“...the downside of these programs is from a college credit and advising standpoint. Colleges and universities do not know the credit a student is going to receive until the student gets to the college. In addition, the college may not have scores back in time to advise properly.” – SUSF #6</p> <p>“In regard to IB and AP, the interviewee does not know if same level of advising is there and puts the burden on high school counselor to know how credit works at college level.” – SUSF #7</p> <p>“The interviewee believes that IB and AP will be continued to be watered down because high schools are pushing students into these two programs.” – IC #1</p> <p>Subjects vary in the nature of difficulty, which causes students to select specific subjects over others (Bunnell, 2011a).</p> <p>The standardization of the grading of DP exams has been questioned, due to the fact that some graders have been deemed to be unqualified or not diligent enough (Bunnell, 2011a). As a result, varied discrepancies of grades between subjects have occurred. The increase in the number of IB schools has caused the integrity of the quality and consistency of the grading process to be questioned.</p> <p>The growth of IB has caused it to become systematic and assessed from a statistical standpoint so often the voice of the individual school is not noted (Bunnell, 2011a).</p> <p>Another issue that the growth of IB has caused is the increasing diversified group of constituents who have its own interests and educational agendas (Bunnell, 2011a).</p>
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<p>symbolizing internationalism and multiculturalism (Resnik, 2012).</p> <p>IBO, the central organization of IB, directs a</p>	<p>IB's growth has caused concerns in the areas of the level of diversity and the altering of the organizational culture as well as the integrity of</p>
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<p>worldwide network of schools that utilizes comparable curriculum and textbooks as well as operates under related missions and standards (Resnik, 2012).</p> <p>Approximately 2,765 colleges and universities worldwide recognize the IB diploma (Resnik, 2012).</p> <p>Colleges and universities internationally acknowledge the IB diploma as substantial qualification of preparation for higher education (Wells, 2011).</p> <p>IB developed the IB Learner Profile and delivers support and resources to schools and teachers, in order for them to employ the IB Learner Profile (Wells, 2011). These resources consist of the IB's Online Curriculum Centre that allows teachers to pose questions as well as post observations.</p> <p>After conducting several research projects, US National Association endorsed IB as a satisfactory option in meeting the needs for gifted learners (Culross, &amp; Tarver, 2011).</p> <p>IB focuses on developing students as a whole person with the focus being on advancing critical thinking, breadth and depth of knowledge and global perspective (Culross, &amp; Tarver, 2011).</p> <p>IB stipulates training workshops for its teachers (Culross, &amp; Tarver, 2011).</p> <p>IB has the best results from the low socioeconomic status achievement group (Klepfer, &amp; Hull, 2012).</p> <p>IB has been known for its consistent assessments (Culross, &amp; Tarver, 2011).</p> <p>New IB Career Certificates, which broaden the number of students participating in IB as well as expanding the type of students able to participate in IB (Bunnell, 2011a).</p> <p>"IB is coming out with something similar to Global Perspectives (AICE) because they are not going to be left behind." – SUSF #4 IB adapts to the market place and global economy.</p>	<p>assessments (Bunnell, 2011a).</p> <p>The increased growth has caused issues for IB relating to personnel to assessments to meeting current customer's needs while innovating to attract a new base of customers (Bunnell, 2011a).</p> <p>Advanced credit that students earned through their successful passage of IB exams often do not shorten their time to degree (Culross &amp; Tarver, 2011). In fact, colleges and universities often award credit that does not satisfy existing requirements so students frequently enroll in advanced course work during their collegiate career.</p> <p>"The costs of AP, IB, and AICE are teacher training, class size, and curriculum supplies. In addition, there is a cost of being an IB and an AICE school." –SUSF #4</p> <p>"IB and AICE program – location and convenience play a factor in the selection of these programs. If students can ride a bus to the program or if a parent can drive their son or daughter to the high school, then they would maybe select an acceleration mechanism outside their zoned area." – SC #1</p> <p>Some colleges and universities do not award college credit for passing the IB exam (Hill, 2011).</p> <p>Some colleges and universities have raised the passing score of awarding credit.</p>
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<p>IB has three programs that start in elementary school and end in high school (Resnik, 2012).</p>	
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<p>The programs are: primary years, middle years, and diploma years.</p> <p>IB has begun to offer online courses.</p>	
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Opportunities	Threats
<p>“Broaden the definition of acceleration mechanisms and the focus to include career and technical. The need for accelerating technical skills and areas exists, in order for students to compete.” –DO #3</p> <p>MOOC’s – if acceleration mechanisms utilized their online courses to connect students worldwide, especially students in small towns and rural communities globally.</p>	<p>“Look at the top US secondary schools. For example, Bronx HS of Science has faculty designed courses that can be stronger than AP, AICE, IB, and dual enrollment.” – SUSF #4</p> <p>“AP, IB, and AICE are driven by funding.” – SUSF #4</p> <p>“The interviewee has concern about AICE and IB because it takes extra funding for AICE and IB, and a little bit for AP.” – SUSF #4</p> <p>“Allocations and increased state regulations affect the acceleration mechanisms.” – DO #2</p> <p>“How viable is it to offer acceleration mechanisms? A school district’s tax base comes into play because most school districts have to monitor numbers and budget and may have to take back allocations while richer school districts look to their tax base.” – DO #2</p> <p>National prominent quality high school curriculum (Klopfenstein, &amp; Lively, 2012).</p> <p>If international schools decided to create an alternative to IB programs (Bunnell, 2011a).</p> <p>If colleges and universities changed their utilization of acceleration mechanisms in the selection process of college admissions, then acceleration mechanisms would be affected. In addition, if college modified or restricted the awarding of college credit for acceleration mechanisms, then acceleration mechanisms would not be as attractive to some students.</p> <p>If students had other means to demonstrate challenging themselves academically than participating in acceleration mechanisms, then the significance or prestige of acceleration mechanisms would change. For example, if college or universities accepted MOOC’s or activity on Khan Academy, then students</p>

	<p>would be interested in this alternative means of validating their readiness for college.</p> <p>If universities developed a series of MOOC's to take for high schools students to be</p>
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	considered for admission into the specified university than the weight of participation in acceleration mechanisms would be weakened.
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Advanced International Certificate of Examination	
Strengths	Weaknesses
<p>“The advantages of completing these diploma/certificate programs would be the “prestige” factor and the increased access to scholarship opportunities (ie. Bright Futures).” – SUSF #5</p> <p>“IB, AICE, and AP not so much risk associated with these programs because students are not starting their college GPA.” – SUSF #8</p> <p>“Cambridge is not going away.” – SUSF #4</p> <p>“IB and AICE offered at more limited basis because not offered everywhere. Both of these programs based acceleration mechanisms already have curriculum so the high schools have already made an investment in these programs, which means these programs are not as affected by budget constraint.” – SC #2</p> <p>“IB or AICE program if had drithers because meets general education requirements at 97% of colleges and universities.” – SUSF #4</p> <p>“AICE is between the acceleration mechanisms in terms of having more flexibility. With AICE, students can tailor curriculum toward their college major.” – HS #11</p>	<p>Lack of academic research about AICE. The research conducted has affiliation with Cambridge University.</p> <p>“AICE is a fourth (1/4) or a third (1/3) the usage of IB.” – SE #2</p> <p>“The main disadvantage of the program is that the student may put into a lot of work and may not pass the test.” – SE #3</p> <p>“The interviewee perceives AICE to be overinflated and much too easy to pass tests.” – HS #6</p> <p>“The amount of work of AP, IB, and AICE affect the students because it limits their social life to a degree.” – HS #11</p> <p>“The AICE program is more recognized outside the US.” – HS #8</p> <p>“The IB and AICE students really sacrifice and experience stress as well as have anxiety attacks.” – HS #11</p> <p>“...students do not have as much as a choice, in terms of course selection, especially when compared to AP and dual enrollment.” – SC #1</p>

<p>AICE is more flexible than other acceleration mechanisms because AICE's intent is to allow students to concentrate on obtaining and</p>	<p>"In regard to AICE and dual enrollment, colleges and universities give college credit reluctant." – SUSF #4</p>
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<p>comprehending a specific subject or discipline (Shaw, 2011). AICE program focuses on additional study and future career goals.</p> <p>AICE is known for providing students with the foundation to be successful in university study as well as assisting students in the transition from secondary to higher education (Shaw, 2011). In addition, AICE is esteemed in the admissions process.</p> <p>“AICE provides an environment that they are free to be smart, questioning, and creative.” – HS #13</p> <p>“Cambridge and IB students are in the 85% and above group in standardized tests, which is a baseline for the program.” – HS #11</p> <p>“Internationally, AICE is the most popular curriculum.” – HS #11</p> <p>“Before Cambridge program, high school had 15-20 top notch students. Now, in the AICE’s 9th year at high school, it has 123 top notch students who earn about \$8,000 to \$10,000 based on their performance on exams.” – HS #11</p> <p>“When the student passes AP, IB, and AICE, the school and teachers get incentive funding.” – SE #2</p> <p>“Advantages of AP, IB, and AICE could be scheduling is all at the high school.” – SE #2</p> <p>“...AICE requires research. Both programs focus more on research and have classes that across several disciplines.” – DO #2</p> <p>“AP, IB, and AICE have accountability because of their end of course exam and standards plus these programs can be compared nationally and globally.” – DO #2</p> <p>“AP, IB, and AICE recognized all over the country...” – SUSF #2</p> <p>Introduction of Global Perspectives and Individual Research course, which is in partnership with AP.</p>	<p>“AICE is not particularly significant due to small number.” – SUSF #3</p> <p>“The costs of AP, IB, and AICE are teacher training, class size, and curriculum supplies. In addition, there is a cost of being an IB and an AICE school.” –SUSF #4</p> <p>“IB and AICE program – location and convenience play a factor in the selection of these programs. If students can ride a bus to the program or if a parent can drive their son or daughter to the high school, then they would maybe select an acceleration mechanism outside their zoned area.” – SC #1</p> <p>In regard to awarding college credit, many colleges and universities do not have any policy for AICE exams.</p> <p>“Every college knows about IB whereas colleges are still learning about AICE, but the program is gaining strength as colleges increase their familiarity with the program.” – DO #2</p> <p>“The amount of work of AP, IB, and AICE affect the students because it limits their social life to a degree. Students perform their extracurricular activities and do their work. These programs put them in a very structured life.” – HS #11</p> <p>“IB and AICE are really strong academics and are really extreme. In regard to mental health wise, these programs may not be great. Parents are trying to pull students back, in terms of loading up on accelerated classes. Yet, students are pushing themselves.” – HS #11</p> <p>“In terms of AICE, the interviewee has not had enough experience because the program is too new. The parental expectation between AICE and IB is which one is easier.” – SUSF #10</p>
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<p>“AICE and IB magnet programs have a prescribed curriculum, and students take all advanced courses, which may only be suitable for a student who is gifted in all subjects.” –</p>	
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<p>SUSF #5</p> <p>AICE program is a significant, rigorous curriculum that permits students to study certain disciplines or subjects (Shaw, 2011).</p> <p>After accounting for SAT scores, AICE students earn a higher GPA on average than IB students (Shaw, &amp; Bailey, 2011).</p> <p>AICE has Thinking Skills course that concentrates on developing in students the following skills: “solving problems, critical thinking, and reasoning” (Lim, 2011, p. 787).</p> <p>AICE has four programs that serve students from age 5 to age 19.</p>	
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Opportunities	Threats
<p data-bbox="334 268 805 422">“Broaden the definition of acceleration mechanisms and the focus to include career and technical. The need for accelerating technical skills and areas exists, in order for students to compete.” –DO #3</p> <p data-bbox="334 464 812 590">MOOC’s – if acceleration mechanisms utilized their online courses to connect students worldwide, especially students in small towns and rural communities globally.</p>	<p data-bbox="859 268 1360 394">“Look at the top US secondary schools. For example, Bronx HS of Science has faculty designed courses that can be stronger than AP, AICE, IB, and dual enrollment.” – SUSF #4</p> <p data-bbox="859 436 1344 495">“AP, IB, and AICE are driven by funding.” – SUSF #2</p> <p data-bbox="859 537 1365 632">“The interviewee has concern about AICE and IB because it takes extra funding for AICE and IB, and a little bit for AP.” – SUSF #4</p> <p data-bbox="859 674 1370 835">“Yet, if more research is not conducted about AICE, then the program size will stay about the same.” – SUSF #9“Allocations and increased state regulations affect the acceleration mechanisms.” – DO #2</p> <p data-bbox="859 877 1370 1062">“How viable is it to offer acceleration mechanisms? A school district’s tax base comes into play because most school districts have to monitor numbers and budget and may have to take back allocations while richer school districts look to their tax base.” – DO #2</p> <p data-bbox="859 1104 1325 1163">National prominent quality high school curriculum (Klopfenstein, &amp; Lively, 2012).</p> <p data-bbox="859 1205 1365 1463">If colleges and universities changed their utilization of acceleration mechanisms in the selection process of college admissions, then acceleration mechanisms would be affected. In addition, if college modified or restricted the awarding of college credit for acceleration mechanisms, then acceleration mechanisms would not be as attractive to some students.</p>

	<p>If students had other means to demonstrate challenging themselves academically than participating in acceleration mechanisms, then the significance or prestige of acceleration mechanisms would change. For example, if college or universities accepted MOOC's or activity on Khan Academy, then students would be interested in this alternative means of validating their readiness for college.</p> <p>If universities developed a series of MOOC's to take for high schools students to be considered for admission into the specified university than the weight of participation in acceleration mechanisms would be weakened.</p>
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Dual Enrollment	
Strengths	Weaknesses
<p>“Dual enrollment has a passage rate of 85% - 95%.” – SE #3</p> <p>“The advantage of dual enrollment is that student involved in an entire college course and is much more likely to pass course.” – SE #2</p> <p>“This program allows student to have the opportunity to enroll in college at no cost to get a taste of college.” – SE #1</p> <p>“Another benefit for the college is that these students may receive target advising that will allow these students to be pulled through the degree in a more direct way than regular college students.” – SE #1</p> <p>“AP and dual enrollment allow the students more freedom to choose their courses.” – DO #2</p> <p>“Dual enrollment is more personalized, and students learn what to expect from college.” – HS #3</p> <p>“Dual enrollment students want to go to the college campus to experience the freedom as</p>	<p>“If going out-of-state, the college credit will be recognized, whereas dual enrollment may or may not be recognized.” – SE #2</p> <p>“The disadvantage of dual enrollment is that a lot of things/policies are left to be worked out locally between high school/school district and college, especially in terms of the ‘logistics of delivery’.” – SE #1</p> <p>“Dual enrollment has no incentive funding associated with it. College is losing money by offering dual enrollment courses.” - SE #1</p> <p>“In the town of the district the perception of the acceleration mechanisms’ is as follows from most rigorous/challenging to least rigorous/challenging: IB, AICE, AP, and dual enrollment.” – DO #3 Dual enrollment is perceived as being less rigorous.</p> <p>“Dual enrollment does not have the same comparability, due to the structure of the program.” – DO #2</p> <p>“Dual enrollment courses cover the course material and do not have research as part of their normal curriculum.” – HS #2</p>

<p>well as having to learn to be their own advocate.” – HS #1</p> <p>“Dual enrollment students are working on</p>	<p>“If a student is looking at competitive universities like Stanford, then the student needs to select AP over dual enrollment</p>
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<p>college courses. The program is good for students who are tired of high school drama.” – HS #4</p> <p>“The dual enrollment program exposes first generation college students to college and what is required to be successful in college.” – HS #5</p> <p>“Dual enrollment program meets student’s academic needs when high school does not have the allocation to offer courses, especially the range of courses that dual enrollment can.” – HS #5</p> <p>“Dual enrollment is a stress reducer for students who are full time in college.” – HS #12</p> <p>“In regard to dual enrollment, students can take full course load of dual enrollment or an individual course.” – HS #3</p> <p>“...when dual enrollment students graduate from high school and enroll in college, they do not have to take as many courses per term.” – HS #3</p> <p>“The difference with dual enrollment is that the instructor has some freedom in crafting tests. As a result, by students knowing the instructor, they can gauge what is important to the instructor and can be able to focus on a more limited amount of material.” – HS #5</p> <p>“Students do well in dual enrollment because they are accustomed to the type of instruction of dual enrollment teachers.” – HS #5</p> <p>“In terms of dual enrollment, college credit is awarded based on successful completion of the courses.” – SUSF #9</p> <p>“In addition, students can start farther along in terms of college courses after high school.” – SC #5</p> <p>“The Statement of Standards that have been put into rule requires that dual enrollment faculty must meet credentials.” – SC #2</p>	<p>because AP will be recognized.” – HS #3</p> <p>“...dual enrollment teachers will adjust the material or curriculum to fit the needs or level of the students. As a result, dual enrollment program can be watered down, due to the teachers adjust the rigor or curriculum for the levels of the students in their courses.” – HS #5</p> <p>“Often, dual enrollment students have lower GPA and a little less prepared.” – SUSF #1</p> <p>“The main realization that dual enrollment students may not fully understand is the building of their college transcript.” – SC #5</p> <p>“Dual enrollment has no governing body.” – SUSF #4</p> <p>“In regard to dual enrollment, legislator is pushing more on high school site, but it is harder for students to get a college feel when taking dual enrollment courses at high school site.” – SUSF #7</p> <p>“In terms of high school grades and dual enrollment, people have concerns about grade inflation. How much are ready for college level work?” – SUSF #9</p> <p>“Sciences and math are ones really questionable about students accelerating too much. With dual enrollment credit, are these students ready to be a junior in college or 2nd semester sophomore?” – SUSF #9</p> <p>“Dual enrollment depends on the state college. The question remains if dual enrollment better prepares them and remains questionable. Not all state colleges are comparable to universities...The interviewee prefers to work with test credit than dual enrollment because inconsistency among state colleges.” – SUSF #10</p> <p>“The students’ experience with dual enrollment is widely varied.” – IC #1</p> <p>“Dual enrollment GPA can hurt them in their quest to get their major. One semester can screw up their life plans. Have to make the right choices early to get into their first major</p>
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<p>“...dual enrollment students view the program as making financial sense and allow them to get a jump on college.” – SUSF #2</p> <p>“Dual enrollment offers high school students a</p>	<p>may have to go to 3rd or 4th choice major.” – SUSF #7</p> <p>The main criticism of dual enrollment is the</p>
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<p>more mature environment and a chance to accelerate in the areas where they scored at college level.” – SC #6</p> <p>Dual enrollment provides students a vision of possible future higher education and career opportunities, which is especially vital to low socioeconomic students (Hofmann, &amp; Voloch, 2012).</p> <p>Dual enrollment has been established as a cost saving mechanism for the state (Speroni, 2011a).</p> <p>Although local dual enrollment agreements can limit students, the program as a whole allows students from a broad assortment of academic aptitudes to participate (Klopfenstein, &amp; Lively, 2012).</p> <p>Dual enrollment programs ease the transition from secondary to postsecondary education (Karp, 2012; Speroni, 2011b).</p> <p>By participating in dual enrollment, students acquire an indication of their college readiness as well as their areas of weaknesses that need to be reinforced (Speroni, 2011a).</p> <p>Dual enrollment can increase college access, due to the program easing the cost of college (Speroni, 2011a).</p> <p>Dual enrollment can assist students in the familiarization of the norms, habits, and behaviors that cultivate success in college (Karp, 2012).</p> <p>From the high school perspective, dual enrollment aids in student engagement by offering a rigorous curriculum that advances the school’s image as well as enhances students’ high school graduation rate and enrollment in college (Robinson, 2011).</p> <p>Dual enrollment program has been linked to students having a sounder collegiate academic performance (Robinson, 2011).</p> <p>Common assertions to the benefits of the dual enrollment program are: improved academic and student preparation for college, reduced time in attaining a bachelor’s degree, and</p>	<p>lack of quality standards among all of the colleges that participate in the dual enrollment program (Speroni, 2011).</p> <p>Another criticism is the concern of the dual enrollment curriculum being at college level (Speroni, 2011b). In addition, no standard curriculum exists for dual enrollment (Speroni, 2011a).</p> <p>The apprehension of dual enrollment resides around the program’s funding issues as well as the student’s readiness to work at the college level (Lewis, 2009).</p> <p>Highly selective institutions do not consider dual enrollment in the same regard as examination based credit (Hill, 2011).</p> <p>No federal standards for dual enrollment (Caradona, 2012). As a result, states take different approaches to establishing dual enrollment programs.</p> <p>Unlike the other acceleration mechanisms, dual enrollment courses are not exclusively designed for high school students (Caradona, 2012).</p> <p>Lack of hard data associated with dual enrollment makes determining the impact of the program challenging for researchers (Caradona, 2012).</p> <p>If a student is not successful in dual enrollment, then the student may lose self-esteem and educational ambitions (Speroni, 2011a).</p> <p>Research has shown that students who only took dual enrollment at the high school performed at the same level as a student who did not participate in dual enrollment or AP (Speroni, 2011a).</p> <p>“Another result of the pressure and increased expectations on students is that students are devastated because they are only graduating from high school with 45 college credits instead of being able to earn their AA degree.” – SC #5</p> <p>“The issue with AA/HS students is these students need advising differently, short</p>
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<p>earlier entry into a career (Klopfenstein, &amp; Lively, 2012).</p>	<p>experiences at SUS, and currently treated as freshman unless take 12 credit hours plus after high school graduation.” – SUSF #9</p>
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<p>Dual enrollment can improve the college enrollment rates of underrepresented students (Ulate, 2011).</p> <p>Students can enroll in a wide variety of college courses in dual enrollment (O'Brien, and Devarics, 2012).</p> <p>Dual enrollment facilitates the lessening for the need of college remediation (Lewis, 2009).</p> <p>Dual enrollment students boost their selfconfidence when they have been successful in the program (Lewis, 2009).</p> <p>Students' involvement in dual enrollment improves their persistence rate in college even for marginalized students (Robinson, 2011).</p> <p>Dual enrollment can improve the retention rates of students, especially between first and second year of college (Robinson, 2011).</p>	<p>"No incentive funding for dual enrollment" – SE #3</p> <p>"A dark side of acceleration mechanisms is that students graduate from high school and then get burned out when they get to university because they have taken so many acceleration mechanism courses, especially dual enrollment." – HS #1</p> <p>"The cons of dual enrollment are that sometimes the college courses do not match with the high school schedule, and students may have to take classes during the evening. In addition, the students may have to wait to take science courses in the summer because science labs are scheduled during the afternoon for a three-hour block, which interferes with high school courses. As a result, dual enrollment students may be limited to taking sciences courses only in summer" – HS #5</p> <p>"In regard to dual enrollment courses offered on college campuses, students may not have access to these courses if they do not have transportation. " – SUSF #5</p> <p>"Also, a student who takes college courses after school may have to forgo work obligations and extracurricular activities." – SUSF #5</p> <p>"Dual enrollment is riskiest of the four options because with the other acceleration mechanisms do not earn college grades. No grading is associated with a passing score "3" on the standardized exams." – SUSF #6</p> <p>"Students can be affected by their dual enrollment grades in college admissions and can haunt them in applying to medical school or graduate school." – SUSF #6</p> <p>"On the other hand, with dual enrollment, the student begins their college record. Colleges and universities rescind offers of admission if the students are not in good academic standing (2.0 GPA +)." – SUSF #2</p> <p>"The fear with the increase offering of dual enrollment at the high school site is that the dual enrollment courses keep their academic integrity." – IC #1</p>
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	<p>“However, the growth of the dual enrollment programs may only continue as long free books</p>
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	<p>and full tuition reimbursements remain part of the program.” – SUSF #5</p> <p>“In addition, the textbook situation with the constant changes in textbooks, rise in cost of textbooks, and rise in the use of access codes is costing school districts a considerable amount of money that they do not have the state funding to pay for these increased costs.” – SC #5</p> <p>Dual enrollment serves half the traditional underrepresented minority students that AP does. (Speroni, 2011a).</p> <p>In regard to awarding dual enrollment credit, policies vary from colleges and universities. Some college and universities do not award dual enrollment credit while other institutions place restrictions on the awarding of credit depending on if the course was held at the college campus or if the course instruction was conducted by a college professor.</p> <p>Students’ experiences in dual enrollment vary because of the type of courses taken as well as the location of the course (Ulate, 2011).</p> <p>In regard to dual enrolment being offered at the high school, the challenge is having credentialed teachers (Estacion, Cotner, D’Souza, Smith, &amp; Borman, 2011).</p> <p>Geographic proximity of the college and high school can make participating in dual enrollment difficult for students if the program is only offered at the college campus (Estacion, et al., 2011).</p>
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Opportunities	Threats
<p>“In regard to dual enrollment, parents and students are more interested in dual enrollment when the economy is down, due to the high passage rate of dual enrollment.” – HS #6</p>	<p>“The state gives so much money to the school districts for AP and DE, which may cause these acceleration mechanisms to be more affected by budgetary factors.” – SC #2</p>
<p>“Also, some of the AICE students will take dual enrollment courses that there is no AICE courses in the subject matter.” – HS #13</p>	<p>“Look at the top US secondary schools. For example, Bronx HS of Science has faculty designed courses that can be stronger than AP, AICE, IB, and dual enrollment.” – SUSF #4</p>
<p>“Students who become disenchanted with IB tend to apply for Dual Enrollment.” – SC #6</p>	<p>“The colleges cover the cost of dual enrollment. However; there is got to be some sort of nexus in the future. Some decisions</p>
<p>“With state subsidies continuing and growing at current levels, the interviewee sees more</p>	<p>have to be made about usage and what we are paying for.” – SE #2</p>

<p>growth potential for dual enrollment due to increased demand and competition for college admission.” – SUSF #5</p> <p>“Broaden the definition of acceleration mechanisms and the focus to include career and technical. The need for accelerating technical skills and areas exists, in order for students to compete.” –DO #3</p> <p>MOOC’s – if acceleration mechanisms utilized their online courses to connect students worldwide, especially students in small towns and rural communities globally.</p>	<p>“In terms of dual enrollment, the college receives some funding. The big issue is that the dual enrollment students are filling up the colleges’ classes. Now, whole classes at the college are filled up with dual enrollment students and are a big chunk of the population of the college’s student body. Yet, colleges are not funded at full amount.” – SE #3</p> <p>“One of the main cost challenges to dual enrollment is the fact that textbooks change so frequently, and the textbook funding does not adequately fund for the growth of the program.” – HS #5</p> <p>“A possible unintended consequence of the rising costs of the dual enrollment program is that high schools are forced to cut into other programs at their high school, in order to meet budget.” – HS #5</p> <p>“The ramping number of early college students and dual enrollment students in each section caused concern about the professors and the college.” – HS #5????</p> <p>“Allocations and increased state regulations affect the acceleration mechanisms.” – DO #2</p> <p>“How viable is it to offer acceleration mechanisms? A school district’s tax base comes into play because most school districts have to monitor numbers and budget and may have to take back allocations while richer school districts look to their tax base.” – DO #2</p> <p>National prominent quality high school curriculum (Klopfenstein, &amp; Lively, 2012).</p> <p>If colleges and universities changed their utilization of acceleration mechanisms in the selection process of college admissions, then acceleration mechanisms would be affected. In addition, if college modified or restricted the awarding of college credit for acceleration mechanisms, then acceleration mechanisms would not be as attractive to some students.</p> <p>If students had other means to demonstrate challenging themselves academically than participating in acceleration mechanisms, then the significance or prestige of acceleration</p>
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	<p>mechanisms would change. For example, if college or universities accepted MOOC's or activity on Khan Academy, then students</p>
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	<p>would be interested in this alternative means of validating their readiness for college.</p> <p>If universities developed a series of MOOC's to take for high schools students to be considered for admission into the specified university than the weight of participation in acceleration mechanisms would be weakened.</p>
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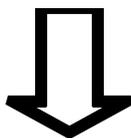
## Appendix P

## Porter's Model Analysis Porter's Model Analysis

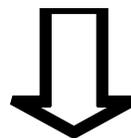
The Porter's Model Analysis chart synthesis the information related to the six forces that impacts dual enrollment. This chart highlights the significant points associated with the six forces that affects dual enrollment. Each force influences the dual enrollment program. The impact of the force cannot be judged on the number of points listed under it because the government forces significantly influences the dual enrollment program although only one point was listed.

***Factors Influencing Demand***

**Financial Considerations:**  
cost of programs to suppliers and  
savings to consumers

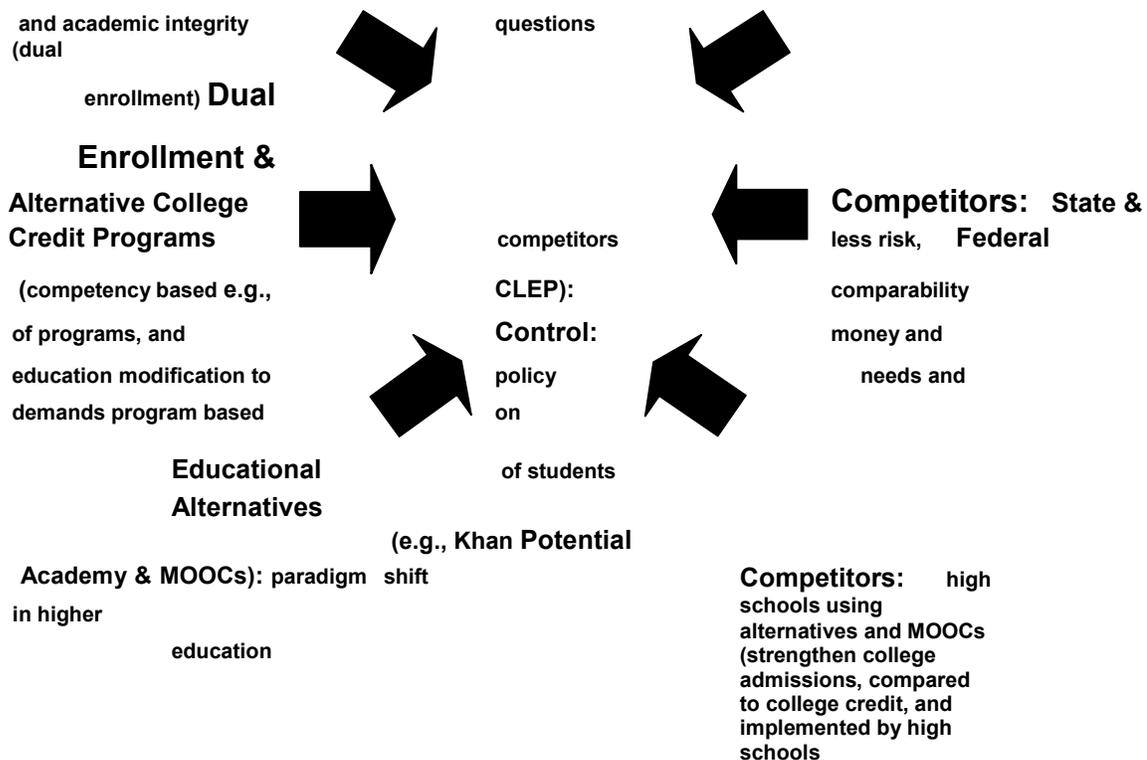


**Institutions  
Supplying  
Acceleration  
Programs: funding**



**Technology: Khan  
Academy, MOOCs, and  
future technological  
changes**

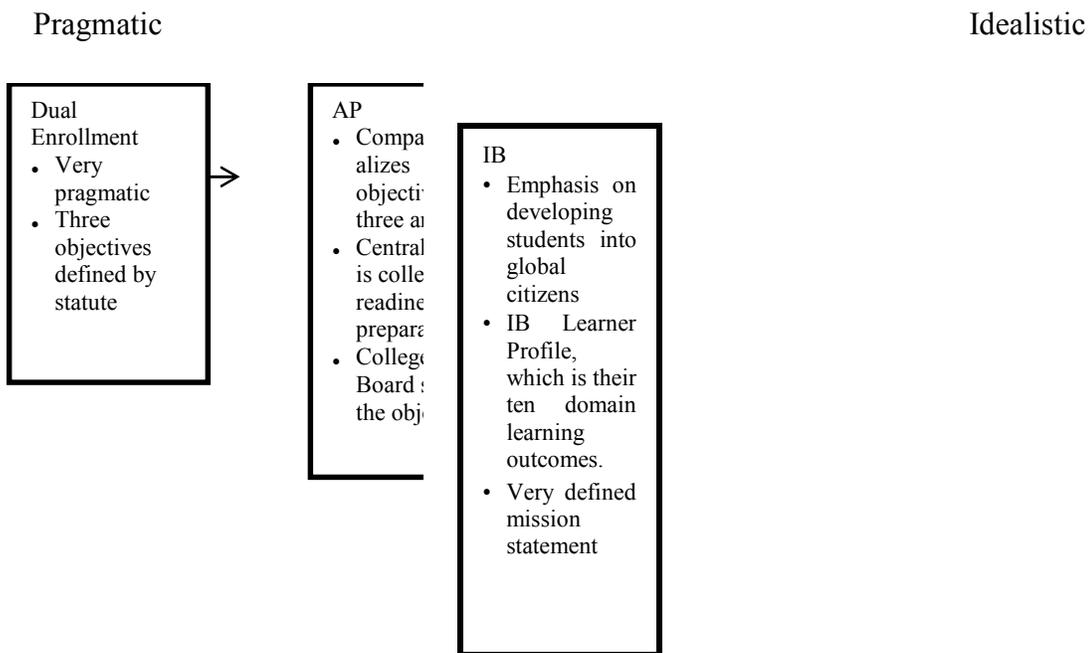
***Factors  
Influencing  
Supply***



### Appendix Q

#### Mission Statement Analysis Model Mission Statement Analysis Model

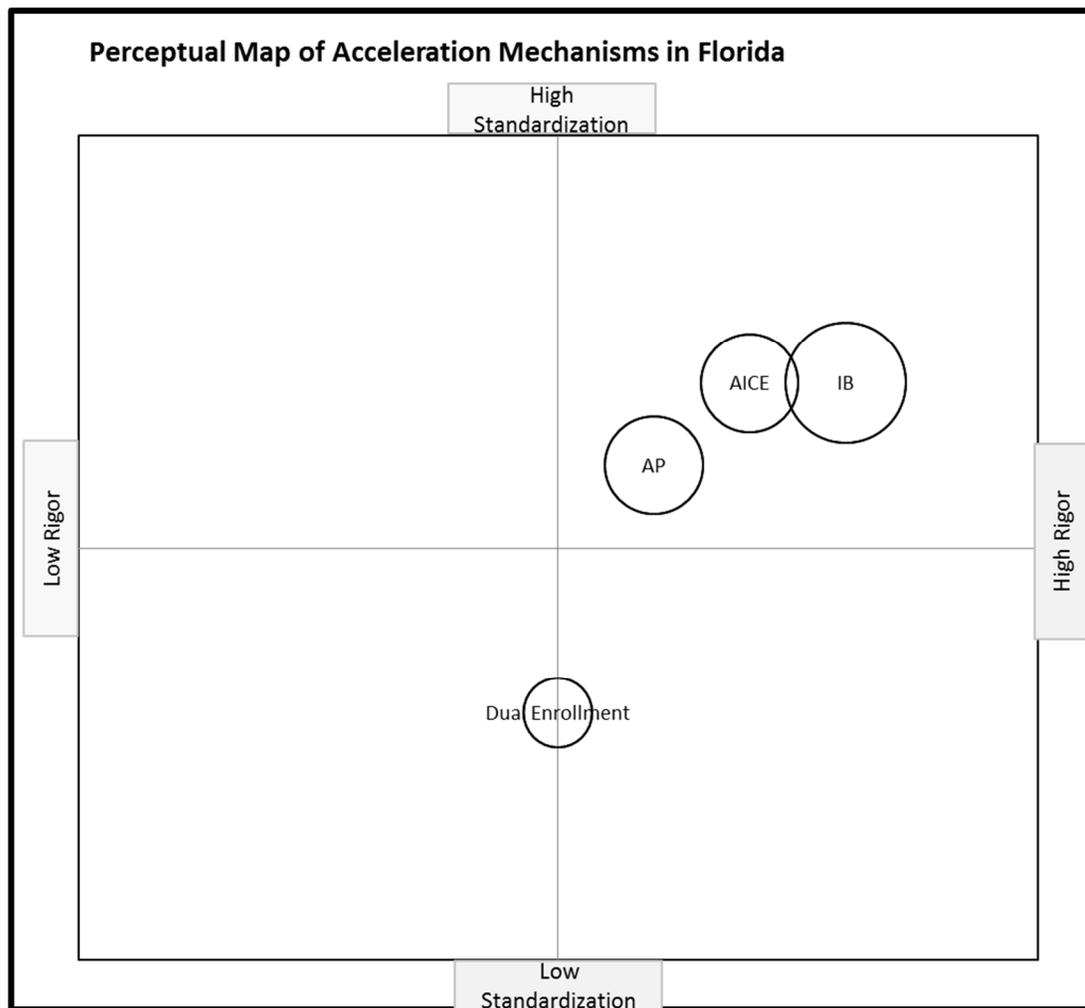
The Mission Statement Analysis Model was created to draw attention to the role mission statements play in providing direction to the specific program. In addition, the Model attempted to provide clarity to the differences that existed between the acceleration mechanisms' mission statements. The Mission Statements offered a foundation for the comparison analysis of these programs.

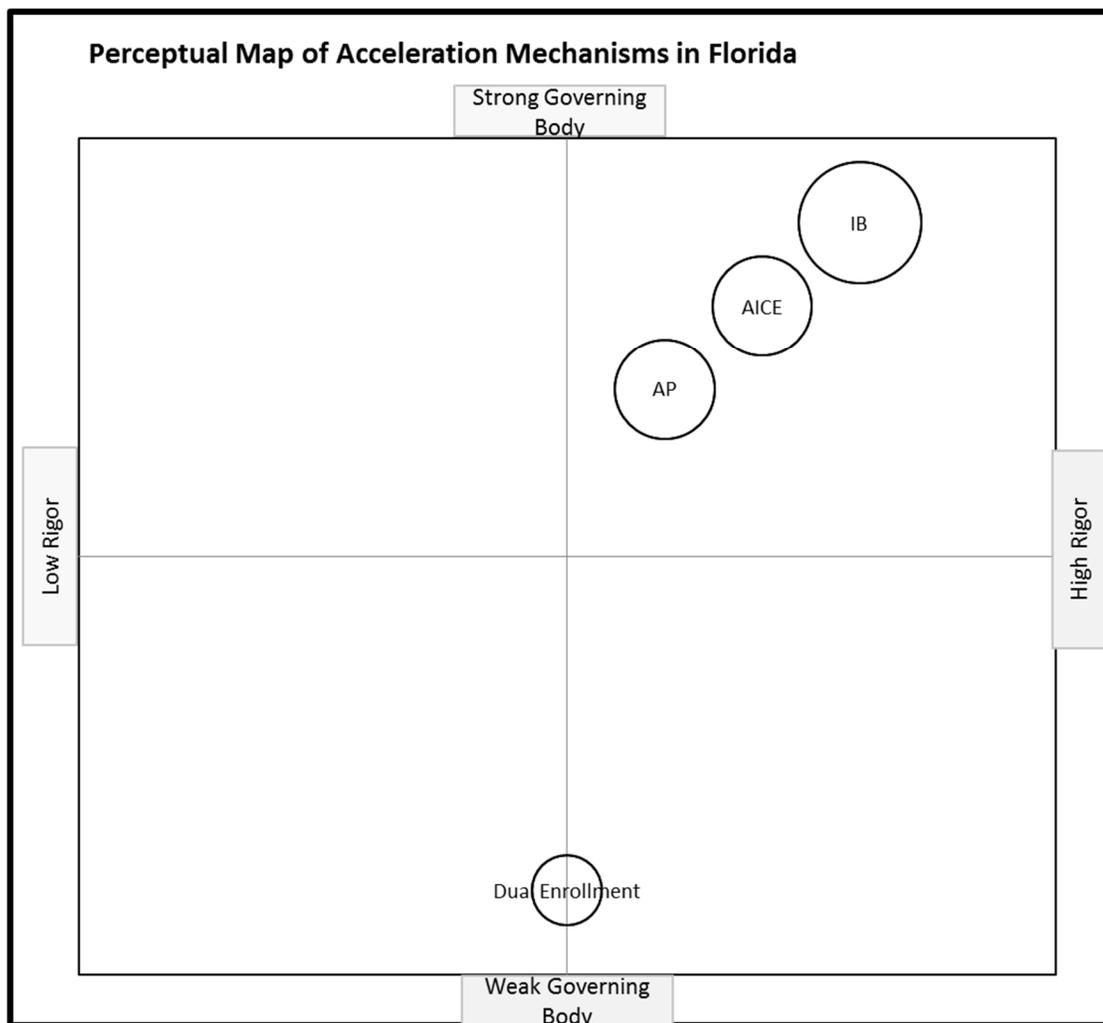


## Appendix R

Perceptual Maps of Acceleration Mechanisms in Florida  
Perceptual Maps of Acceleration Mechanisms in Florida

Perceptual Maps were utilized as a visual tool to illustrate the positioning of acceleration mechanisms based on selected criteria. The researcher chose rigor for the two perceptual maps because the research revealed the importance of the program's rigor on its positioning in the industry as well as the perception of the program. As a result, rigor served as the basis for each perceptual map with one factor of the first perceptual map being standardization and the other perceptual map factor was governing body. Both factors, standardization and governing body, were discovered in the study as being vital factors in the acceleration mechanism industry.



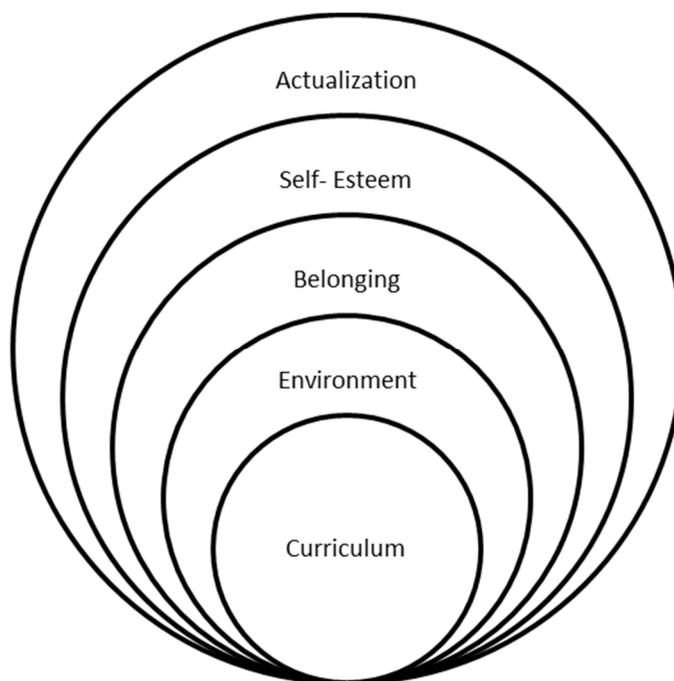


## Appendix S

## Maslow's Theory of Need Adapted to Acceleration Mechanisms

## Maslow's Theory of Need Adapted to Acceleration Mechanisms

The researcher selected Maslow's Theory of Need to explain the needs and desires of students so the researcher adapted this theory to pertain to the acceleration mechanism industry. The base need of all students deciding to participate in acceleration mechanisms was a rigorous curriculum. Depending on the students' needs, goals, and desires drive the level of attainment the students seek as well as the acceleration mechanism the student chooses to participate in.



## Appendix T

### Comparison of Acceleration Mechanisms' Strengths and Weaknesses Comparison of Acceleration Mechanisms' Strengths and Weaknesses

The comparison chart of acceleration mechanisms' strengths and weaknesses was generated so stakeholders can have information readily available to make comparisons between the acceleration mechanisms. Having a better understanding of acceleration mechanisms' strengths and weaknesses allowed stakeholders to construct improved decision making in terms of these acceleration mechanisms.

#### Comparison of Acceleration Mechanisms' Strengths

AICE Strengths	IB Strengths	AP Strengths	Dual Enrollment Strengths
Reputation of Cambridge	High Passage Rate of 80%	Entrenchment in the market	High Passage Rate
Most popular curriculum internationally	Elite reputation	Governing body and its resources	Students gained selfperspective about their strengths and weaknesses.
Flexibility because students can tailor course selection to their career interests.	Worldwide network of schools	Assessments and standardized curriculum	Most personalized and flexible of all acceleration mechanisms.
	Assessments and organizational activities	Revised curriculum to meet market needs and demands.	Students learn college expectations, norms, and standards
	International perspective		

### Comparison of Acceleration Mechanisms' Weaknesses

AICE Weaknesses	IB Weaknesses	AP Weaknesses	Dual Enrollment Weaknesses
Name recognition in the United States.	Growth of IB has caused concerns in the areas of the level of diversity, the altering of organizational culture, and the integrity of assessments.	Low passage rate	Concern about academic rigor due to lack of standards and external assessment
Lack of academic research and nonresearch articles, especially from independent sources.	Concerns of maintaining the elevated eminence of the IB brand.	Apprehension of open access	Inconsistency and lack of comparability between dual enrollment programs
Concerns about pressures placed on students for participating in the program.	Curriculum is so regimented few students can perform in all areas.	Equity gaps in AP participation and success exists for underserved minorities.	Funding issues
	Students' welfare in terms of stress, burnout factor, and limited social and academic interactions with their mainstream peer group.	Colleges and universities do not have most accurate student academic history.	Possible negative impact on student's future educational and career goals.

