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Establishing Criteria for Meaningful Student Involvement in the IEP process: A Review of the Literature

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Establishing Criteria for Meaningful Student Involvement in the IEP process: A Review of the Literature

by

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Abstract

Establishing Criteria for Meaningful Student Involvement in the IEP process: A Review of the Literature

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Federal policies and laws as well as research in the area of self-determination have encouraged meaningful student involvement in the IEP process for over twenty years. Active student involvement in the IEP process allows for students to practice important self-determination skills in an applied setting and to be meaningful participants in their education. The purpose of this literature review is to establish what constitutes meaningful student involvement in the IEP process and identify evidence-based practices for increasing meaningful student involvement.

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Chapter 1: Background and Purpose

In the past two decades, an increased focus in special education has been around self-determination. Self-determination, while a broad term, can be summarized as "the ability, motivation and supports needed to direct one's own life in ways and directions that are personally meaningful" (Field, Martin, Miller, Ward, & Wehmeyer, 1998). There are multiple ways for students to learn and practice self-determination skills. One of the most researched and universally accessible opportunities to use these skills lies in preparation for an Individualized Education Plan (IEP) or Individualized Transition Planning (ITP) meeting. Some school districts choose to have the IEP and ITP meeting at the same time while others treat these as separate meetings. From herein, the term IEP meeting will be used to refer to both IEP and ITP meetings. Meaningful student involvement in an IEP meeting is not only encouraged by the law but is also supported by more than 20 years of research.

Self-Determination and Meaningful Student Involvement

Many ways to address self-determination skills for students with disabilities exist in school settings, both embedded within other skills and/or as a curriculum in itself. The IEP process is a universal opportunity for students receiving special education services because every student is required to have a meeting to develop or revise the IEP at least once per year. Since the IEP is based on the student's individual strengths, preferences and needs, it provides an ideal way for students to learn and practice self-determination

skills such as goal setting and requesting needed supports (Martin, Marshall & Maxson, 1993). The importance of self-determination skills cannot be overstated; studies have demonstrated repeatedly that students who show increased self-determination skills have better in-school and post-school outcomes (Fowler, Konrad, Walker, Test & Wood, 2007; Wehmeyer & Palmer, 2003).

IDEA REQUIREMENTS

The Education for All Handicapped Children Act of 1975 encouraged the participation of students with disabilities in their educational planning when appropriate (Barnard-Brak & Lechtenberger, 2009). The 1990 reauthorization of this Act, renamed the Individuals with Disabilities Act (IDEA), added a requirement of postsecondary planning for students 16 and older. In 1997, the reauthorization went one step further mandating a statement of course of study for students beginning at age 14 and a statement of needed transition services with appropriate agencies beginning at age 16. The 2004 reauthorization increased the age of planning to begin at 16, through states can still choose to mandate 14 if they choose. IDEA 2004 also mandated each state to develop a State Performance Plan aimed at improving postsecondary outcomes for students with disabilities. IDEA also requires that transition plans include: (a) student invitation, (b) measurable postsecondary goal(s), (c) age-appropriate transition assessments, (d) coordinated set of activities, (e) outside agency invitation, (f) annual individualized education program goal(s) and (g) notification of transfer of rights at age of majority (300.32(b)).

The mandate for students to be invited to their transition planning meeting seems to imply that the spirit of the law is for all students to be involved in the IEP process when appropriate, with student invitation required if students are 16 or older and transition is being discussed (Barnard-Brak & Lechtenberger, 2010). However, if schools are merely following the letter of the law, with students only physically present and not actively involved, quality involvement is not accomplished (Landmark & Zhang, 2012). The existing requirement that students need only to be invited to the planning process may be more token involvement than meaningful contribution (Martin & Williams-Diehm, 2013). While promising that students are increasingly present at their IEP meetings, meaningful participation seems to be more of the exception than the rule (Heatherington et al., 2010; Spann, Kohler & Soenksen, 2003).

STUDENT INVOLVEMENT IN THE IEP PROCESS

Not only does the law encourage student participation in IEP meetings, there is a growing body of research that supports student involvement in the IEP meeting as an evidenced-based practice. Over the past 25 years, multiple studies have examined student involvement in the IEP meeting process and have shown positive effects on student outcomes both during school, with increased participation in the educational process as a whole, and after school, with greater levels of self-determination skills. (Barnard Bark & Fearon, 2012; Test et al., 2004). Research suggests that meaningful student involvement in IEP meetings changes the tone and focus of the meeting itself. Martin, Marshall and Sale (2004) found that active student involvement not only changed the focus from a

deficits-based focus to a strengths-based focus, but also increased parent and general education teachers' understanding and comfort during the meetings. These benefits promote more meaningful contributions by everyone at the meeting, truly making it a team that is focused on the strengths and needs of the student who is at the center of the planning.

In addition to the positive effect of student participation in the meeting, meaningful student involvement has been shown to correlate with positive benefits outside the immediate IEP meeting. Student involvement increases student knowledge of the purpose of special education and the IEP process (Martin et al., 2004). Benz, Lindstrom and Yovanoff (2000) suggested a correlation between student-centered transition planning and motivation towards setting and attaining goals. Closely linked with this, student participation was also found to be associated with increasing self-determination skills (Stodden & Conway, 2002). There is also some research to support increased academic performance for students who are involved in their IEP planning process (Barnard-Brak and Lechtenberger, 2010).

BARRIERS TO MEANINGFUL PARTICIPATION

Much can be said about the many positive effects of meaningful student participation in the IEP process; however, there are still many barriers limiting all students and schools from enacting this practice. As stated previously, meaningful participation seems to be more of an exception than a rule and research has identified some of the reasons for this lack of student participation (Agran & Hughes, 2008;

Hughes, Cosgriff, Agran & Washington, 2013). One of the most common barriers is a lack of knowledge. Not all teachers and administrators have the training and tools to instruct students in meaningful participation (Test, Fowler, Brewer & Wood, 2005). Some research has suggested that having students attend their IEP meeting without any instruction can do more harm than good. Students may lack an understanding of the purpose of the meeting and the technical language used during the meeting. Students can also feel as if their voices go unheard during the meeting without proper preparation (Martin, Van Dycke, Christensen, Greene, Gardner, & Lovett, 2006). Agran and Hughes (2008) as well as Thoma, Rogan and Baker (2001) have focused on preparation of students for participation in the IEP meeting and found that many students receive little to no instruction about the purpose of the meeting or their roles in the meeting. As a result of meetings of this nature, students can become disillusioned with the IEP process and their education as a whole, thus doing more harm than good (Lehman, Bassett & Sands 1999; Powers, Turner, Matuszewski, Wilson & Loesch 1999).

Certain student characteristics can decrease the likelihood of meaningful participation in an IEP. Students with intellectual disabilities and autism are less likely than other disability categories to meaningfully participate in their IEP meetings (Thoma et al., 2001; Griffin, Taylor, Urbano & Hodapp, 2013; Shogren & Plotner, 2012; Wagner, Newman, Cameto, Javitz & Valdes, 2012). Younger students are less likely than older students to be involved in their IEP meetings (Agran & Hughes, 2008). Some studies have also suggested a link between race and student involvement, with Caucasian

students more likely to be been actively involved in their IEP meetings (Hughes et al., 2013; Wagner et al., 2012).

Conversely certain student characteristics have been correlated with a higher likelihood of active student participation, including higher communication skills and cognitive functioning (Griffin et al., 2013; Wagner et al., 2012). A positive correlation has also been found between increased time in inclusive environments and student involvement in the IEP process. Students who spend more time in an inclusive environment tended to be more involved in the IEP process (Griffin et al., 2013; Hughes et al., 2013; Wagner et al., 2012). Hughes et al. (2013) mentioned the possibility that inclusive settings potentially provide more opportunities to develop and practice self-determination skills.

PAST LITERATURE REVIEWS

Two literature reviews have been conducted related to student involvement in the IEP process. Test, Mason, Hughes, Konrad, Neale and Wood (2004) found a multitude of useful strategies to increase involvement in the IEP process for students with a variety of disabilities. Griffin (2011) found that although there is a lack of research aimed at culturally and linguistically diverse students and their families, there are some interventions that are effective means of increasing participation for this population. While both of these literature reviews have contributed a wealth of information to the field of study, they focused on student participation in general. While having students at

the meeting is an important first step, meaningful participation is not only in the best interest of the student, but is required by policy and validated by research,

RATIONALE

Not only does research support student involvement in the IEP process, but laws and policies require students to be involvement in the transition planning process. Research has been conducted since the 1990 reauthorization of IDEA on the topic of student involvement in the IEP process. The purpose of this paper is to review the literature concerning interventions focused on increasing meaningful student involvement in IEP planning and meetings. Two research questions guide this thesis

1) In what ways were meaningful student participation defined and measured?
2) What are the effects of current, school based, interventions on increasing students' meaningful involvement in the IEP process?

This review begins with an analysis of the studies and their characteristics and reviews the independent and dependent variables and findings of the studies. It then reviews themes in the findings and offers a suggested definition of meaningful student involvement. It concludes with suggestions for practitioners and future researchers.

Chapter 2: Methods

INCLUSION CRITERIA

This purpose of this paper was to review the literature concerning meaningful student involvement in IEP meetings. Articles were required to meet several criteria for inclusion into the literature review. These inclusion criteria are as follows.

1) Each study was required to have implemented an intervention aimed at increasing student involvement or self-determination skills during the IEP process.

2) Each study had to use a dependent variable that measured an aspect of student. The dependent variable was required to be measured by either direct observation or viewing a recording of a real or mock IEP meeting. Studies that used a questionnaire as the dependent variable were excluded because questionnaires or surveys do not always accurately portray what occurs during a meeting.

3) Each study had to use an experimental, quasi-experimental or single-subject design. Although qualitative studies provide valuable information on this topic area, they were excluded for the purposes of this literature review because they do not add to an empirical definition of meaningful involvement.

4) Each study had to be conducted in the United States or its territories since this is the population served under the IDEA.

5) Each study had to be written in English and published in peer-reviewed journals.

SELECTION PROCEDURES

Potential articles for inclusion were identified using three methods including a search of an electronic research database, an examination of articles included in previous literature reviews, and a review of the most recent relevant journals. The procedures for each of these methods are detailed below.

ERIC Database

The researcher used the ERIC database to search a combination of the terms, "student participation", "student involvement", IEP and transition planning. Each article identified from the search was coded based on the above inclusion/exclusion criteria using the abstract. If information about the criteria was not initially available from the abstract, the methods section of the article was reviewed to assess inclusion of that particular article. Out of 71 total results, 10 met the criteria for inclusion. The primary reason for exclusion of articles was a lack of a dependent measure that directly observed the IEP meeting or a recording of the meeting.

Examination of Previous Literature Reviews

After using the ERIC database to search, the researcher also reviewed the included articles from both the Test et al., (2004) and Griffin (2011) literature reviews to determine if any of the articles would meet the inclusion criteria. There were 22 articles identified from these two literature reviews, not including duplicates from searching the ERIC database. Three of these articles met the criteria for inclusion in the current review. Again, the primary reason for exclusion was a lack of a dependent variable that directly observed the IEP meeting or a recording of the meeting.

Review of Relevant Journals

Finally, the researcher accessed relevant special education journals and manually searched the table of contents for the year of 2013 and any released issues prior to July of 2014 to identify potential articles that had not yet been added to the search databases. The following journals were included in this search: *Behavioral Disorders, Career Development for Exceptional Individuals, Exceptional Children, Focus on Autism and Other Developmental Disorders, Intervention in School and Clinic, Journal of Emotional and Behavioral Disorders, Journal of Intellectual Disabilities, Journal of Learning Disabilities, Journal of Special Education, Learning Disabilities Quarterly, Remedial and Special Education* and *Teaching Exceptional Children*. All articles that potentially related to the research questions were then coded using the inclusion/exclusion criteria. From this method, one article was included in the literature review.

CODING AND ANALYSIS

After the 14 included articles were identified, each was read and coded by the researcher for the following information: number of participants; gender, ethnicity, disability and school setting of participants; type of research design; independent and relevant dependent variables; and outcome of study. Once all articles were coded the information was entered into spreadsheets to distinguish overall trends and patterns. For single subject studies, visual analysis was used to distinguish trends in data and effectiveness of an intervention. For group designs, authors used a variety of statistical tests to calculate effectiveness. For each study, the statistical tests, as well as the effect size if provided, was used to determine effectiveness.

Chapter 3: Results

PARTICIPANT CHARACTERISTICS

A total of 14 studies were included in the literature review (see Table 1). The total number of participants in the studies was 268 students. All studies reported gender of the participants. Of the total participants, 66% were male and 34% were female. All but one study reported either the age of each participant or the average age of the participants. Martin et al., (2006) did not report the mean but instead reported percentages of age ranges; the median of the largest age group was used as the mean age for this study. The average age of participants was 15.5 with a range from 9 years of age to 21 years of age.

Of the 14 included studies, 13 reported participant ethnicity. Snyder and Shapiro (1997) did not provide ethnicities of their three participants. Therefor, in calculating percentages of participants by race, the total number of participants used was 265. Of the participants in the included studies, 77% of the participants were Caucasian, 11% were African American, 9% were Hispanic/Latino and 3% were another ethnicity. Other ethnicities included, Asian, American Indian, or multiple ethnicities. For comparison, national data from 2011, shows that 52% of students were Caucasian, 16% were African American, 24% were Hispanic and 9% were other (U.S. Department of Education).

All studies reported participant disability type (see Table 2). If the disability type was presented as a percentage instead of a number, the number was calculated from the

percentage and total number of participants for that study, and rounded for the purposes of this literature review. One study, Lancaster et al., (2002), had 22 students in the study

Table 1:

Participant Characteristics

Study	Number of participants	Gender		Mean Age	Ethnicity			
		Male	Female		Caucasian	African American	Hispanic/Latino	Other
Allen. (2001)	4	2	2	16.8	4	-	-	-
Arndt et al. (2006)	5	3	2	16.8	3	2	-	-
Cease-Cook et al. (2013)	5	2	3	15	5	-	-	-
Hammer (2004)	3	1	2	12.7	2	1	-	-
Kelly et al. (2013)	3	1	2	17.3	2	1	-	-
Lancaster et al. (2002)	22	20	2	17	18	2	-	2
Martin et al. (2006)	130	83	47	15	109	12	5	4
Neal & Test 2010	4	3	1	10		1	3	
Powers et al. (2011)	43	30	13	15.5	32	3	6	2
Snyder (2002)	5	1	4	17.4	2	1	2	-
Snyder and Shaprio (1997)	3	3	-	15	-	-	-	-
Test and Neal (2004)	4	3	1	12.8	2	2	-	-
Van Reusen and Bos (1994)	21	11	10	16.4	13	1	7	-
Van Reusen et al. (1989)	16	13	3	17.2	13	3	-	-
TOTAL	268	176	92		205	29	23	8

but 23 participants total in the table of disabilities. Since it could not be determined which student was listed in multiple categories, this student was included twice in the calculated percentages. Not all studies used the same disability classifications but the researcher used discretion to match the disability to the closest category. For example, a study used the term Asperger's Syndrome; the student was included in the category of Autism Spectrum Disorder. If studies listed a primary disability, the student was considered to be in that category, but if the study listed multiple disabilities with no differentiation between primary and secondary, the student was considered to be in the multiple disability category for the purposes of this research. Of the total participants in the 14 studies, 2% were on the autism spectrum, 6% had emotional or behavioral disorders, 10% had intellectual disabilities, 63% had learning disabilities, 6% had other health impairments, 2% had orthopedic impairments, 9% had multiple disabilities, and 2% had a disability unidentified by the researcher.

Four of the studies took place in private school while the other 10 took place in a public school. Of those that took place in public schools, four took place in resources settings, two took place in self-contained settings and two did not specify the setting in which the intervention was conducted.

TABLE 2
Participants by Disability Type

	ASD	EBD	ID	LD	OHI		OI	MD	Unidentified
Allen et al. (2001)				4					
Ardnt et al. (2006)		1	1	1	1	1			
Cease-Cook et al. (2013)				5					
Hammer (2004)					2	1			
Kelly et al. (2013)				2	1				
Lancaster et al. (2002)			5		14	4			
Martin et al. (2006)		4	4	11	93	10	2		6
Neal & Test (2010)				2	2				
Powers et al. (2011)			2		18	1	4	18	
Snyder (2002)								5	
Snyder & Shaprio (1997)			3						
Test & Neal (2004)			1	1	2				
Van Reusen & Bos (1994)					21				
Van Reussen et al. (1989					16				
Total		5	16	26	170	17	6	23	6

Note. ASD= Autism Spectrum Disorder; EBD= Emotional/Behavioral Disabilities; ID=Intellectual Disabilities; LD= Learning Disabilities; OHI= Other Health Impairments; OI= Orthopedic Impairment; MD= Multiple Disabilities

RESEARCH DESIGN

Research designs included single-subject, group and mixed method designs (see Table 3). Nine of the studies used a single-subject research design. Four of these studies used a multiple probe across participant design, two used a multiple baseline across behavior design, two used a multiple baseline across instructional unit design and one used a multiple baseline across subject design.

Three studies used an experimental or quasi-experimental design; Martin et al (2006), Powers et al. (2011) and Van Reusen and Bos (1994. Two studies used mixed methods. Van Reusen et al. (1989) used a multiple baseline across subject design as well as a post-test only experimental and Lancaster et al. (2002) used a multiple probe across participants, static group comparison and experimental design.

Table 3
Description of Studies

Study	Design	Intervention	Dependent Variable	Results
Allen et al. (2001)	Single-subject; multiple baseline across instructional units	Modified Self-Directed IEP	Observer rating during mock and real IEP using a checklist created for study with 4 areas (a) Leading Meeting (b) Reporting interests (c) Reporting skills (d) Reporting options	Increase by all participants of skills in all four areas
Arndt et al. (2006)	Single-subject; multiple baseline across instructional units	Self-Directed IEP	Observer rating during mock and real IEP meetings of skills identified in checklist created for study	Increase in skills identified on checklist by all participants
Cease-Cook et al. (2013)	Single-subject; multiple probe across participants	Self-Advocacy Strategy	Observer ratings during instruction and IEP meeting of quality of student response to SAS probes	Increase in number of quality contributions by all participants
Hammer (2004)	Single-subject; multiple baseline across subject	CD-ROM version of Self-Advocacy Strategy	Observer ratings during instruction and IEP meeting of quality of student response to SAS probes	Increase in relevant contributions by all participants

Note: SAS= Self Advocacy Strategy

Table 3 (cont.)

Kelly et al. (2013)	Single-subject; multiple probe across participants	Self-Directed IEP (computer assisted instruction)	Observer rating during instruction and IEP of performing 10 steps in Self-Directed IEP	Increase in number of steps performed by all students in mock and real IEP
Lancaster et al. (2002)	Mixed-methods; multiple probe across participants, static-group comparison and pretest-posttest comparison group.	CD Rom- and Teacher Led Versions of the Self - Advocacy Strategy	Observer ratings during instruction and IEP meeting of (a) quality of student response to SAS probes (b) quality of student goals	Participants in Live teaching and CD-ROM groups improved quality of responses to probes and increased the number of student goals included in IEP compared to control group
Martin et al. (2006)	Group; control group with pre/post test	Self-Directed IEP	(a) Observer rating during instruction and IEP of performing 10 steps in Self-Directed IEP (b) time sampling to determine intervals each participant talked	Treatment groups showed increased number of skills performed according to checklist and increased percentage of intervals participating compared to control group

Table 3 (cont.)

Neal & Test 2010	Single-subject; multiple probe across participants design	"I Can Use Effort" (elementary adaptations of Self-Advocacy Strategy)	Observer ratings during instruction and mock IEP meeting of quality of student response to SAS probes	Increase in quality of verbal contributions by all participants
Powers et al. (2011)	Group; control group with pretest-post test	TAKE CHARGE For The Future	Observations rating of IEP meeting measuring (a) student initiation intervals (b) student participation intervals (c) student non-participation intervals	Increase of student initiation and participation in meeting
Snyder (2002)	Single-subject; multiple baseline across behaviors	Self-Directed IEP	Observer rating during instruction and IEP meeting on Self-Directed Behavior Rating Scale	Increase by all participants of skills reported on the scale
Snyder and Shaprio (1997)	Single-subject; multiple baseline across behaviors	Self-Directed IEP	Observer rating during instruction and IEP meeting on Self-Directed Behavior Rating Scale	Increase by two of three participants of skills reported on the scale
Test and Neal (2004)	Single-subject; multiple probe across participants	Self - Advocacy Strategy	Observer ratings during instruction and IEP meeting of quality of student response to SAS probes	Increase of quality of verbal contributions by all participants

Table 3 (cont.)

Van Reusen and Bos (1994)	Group; Post-test only control group	IEP Participation Strategy	Observer ratings during instruction and IEP meeting of (a) quantity of student goals (b) quantity & quality of student response to SAS probes	Increased quantity of student created goals and quality of student verbal contributions by intervention group in comparison with control group
Van Reusen et el. (1989)	Mixed-method; multiple baseline across subject design and post-test only control group	IEP Participation Strategy	Observer ratings during instruction and IEP meeting of (a) quality of student response to SAS probes (b) Extent that student identified goals were incorporated into the IEP	Increased quantity and quality of student contributions and increase of student created goals in the IEP by the intervention group compared with the control group

INDEPENDENT VARIABLES

Four main interventions were used by the 14 included studies: Self-Directed IEP, IEP Participation Strategy, Self-Advocacy Strategy, TAKE CHARGE For The Future (see Table 3). Six studies used the Self-Directed IEP strategy. This strategy focuses on students leading and actively participating in their IEP. "The Self-Directed IEP uses video modeling, student assignments, and role-playing to teach students IEP leadership skills (Martin et al., 2006 p 300)" such as starting a meeting, presenting strengths, needs

and goals and asking questions as needed. Of the studies that used the Self-Directed IEP strategy, one study, Allen et al. (2001), modified the curriculum for students with moderate intellectual disabilities. Kelly et al. (2013) used the Self-Directed IEP along with computer-assisted instruction as an intervention.

Two studies used the IEP Participation Strategy. These were both early studies in the field of student participation in planning meetings (Van Reusen et al., 1989, Van Reusen & Bos, 1994) and the IEP Participation Strategy became the early version of what is now called the Self-Advocacy Strategy. Five studies used the Self-Advocacy Strategy as an intervention to increase student participation. This strategy is a "motivation and self-determination strategy designed to prepare students to participate in education or transition planning conferences" (Test and Neale, 2004, p 140). It differs from the Self-Directed IEP in that the goal is not necessarily for students to lead the meeting but instead use advocacy skills to participate in a meaningful way throughout the meeting. Two of the studies used the CD-ROM version of the Self-Advocacy Strategy to validate the effectiveness of the interventions provided using technology instead of entirely teacher led instruction (Hammer 2004, Lancaster et al., 2002). The study conducted by Neal and Test (2010) used the I Can Use Effort Strategy, an elementary adaptation of the Self-Advocacy Strategy. The I Can Use Effort Strategy is similar to the Self-Advocacy Strategies with modifications to match curriculum requirements for the element grade levels.

One study, Powers et al. (2001), used the TAKE CHARGE For The Future strategy. This strategy is a more comprehensive strategy than the other two and includes

"the coaching of youth in the application of student-directed planning skills to achieve transition goals, peer-based mentorship and parent support, and in-service education for school transition staff" (Powers et al., 2001, p.89). The student directed planning skills were addressed in bi-weekly coaching sessions between a student and their mentor that included instruction in identifying and achieving transition related goals.

DEPENDENT VARIABLES: MEASURING MEANINGFUL INVOLVEMENT

Studies reviewed in this paper measured the dependent variable of meaningful student involvement in several ways (see Table 3). All seven of the studies that used the Self-Advocacy Strategy, or some variation of it, used 10 probe questions developed by Van Reusen et al. in 1989 as a dependent measure (see Appendix A). The 10 probes were used during baseline, intervention and IEP meetings to encourage students to share their opinions and thoughts related to their strengths, areas of need, goals, needed supports and concerns related to school, personal life, and vocation. Generally either the researcher or the student's special education teacher asked the probe questions. Some of the studies simply gave credit for any related response to the probe while others scored the quality of the response using a Likert scale (i.e. a more complete, thought out, and supported response was worth more points than a simple answer.) The Self-Advocacy Probes, while asking about jobs and leisure activities, focus primarily on the students' strengths, needs and goals related to the school setting.

The five studies using the Self-Directed IEP as the intervention all used different yet similarly focused rubrics to score quality of student participation during IEP meetings

(see Appendix B and C for examples). While each of the scoring rubrics varied relating to specificity and scoring scales, they generally included the following areas: start meeting with purpose and introductions, review past goals and performance, discuss future goals and performance, close meeting, and listen to feedback/deal with differences. Again, Likert scales were used to determine how well each of the criterions were met. Some of the studies specifically included all areas of transition planning (education, vocation, daily living, leisure) while others gave credit for stating any three goals, needs or preferences related to any of these categories.

Three of the studies used the student-generated goals as one of the dependent variables. Two of the studies quantified this construct by counting the number of student-generated goals included in the finalized IEP (Lancaster et al., 2002; Test & Neal, 2004). Van Reusen and Bos (1994) counted the total number of student identified goals on their Student Inventory Sheet.

Two of the studies, Martin et al. (2006) and Powers et al. (2011), used time sampling data collection to observe IEP meetings in person or on video. Both used this method in conjunction with another dependent variable. Trained observers coded each meeting as to who was talking during each 10-second interval. They looked specifically to see if the student was talking and whether their contributions were relevant to the meeting.

EFFECTIVENESS OF INTERVENTIONS

All of the included studies showed an increase in at least one area of meaningful student involvement in either mock or real IEP meetings (see column 5 in Table 3). Using visual analysis, eight of the nine single-subject studies showed an increase in meaningful student participation for each of the participants. Snyder and Shapiro (1997) is the exception, in which three of the four participants showed an increase.

Of the five mixed-method and group design studies, statistically significant differences were found between the intervention and control groups. Lancaster et al. (2002) used a ANCOVA analysis to show a statistically significant effect size between both the live teaching [$F(2,13)=16.7$, $p<.001$] and CD-ROM [$F(2,13)=35.97$, p, .001] intervention groups compared to the control group for the number of relevant contributions during the meeting. Their study also used a Wilcoxon-Mann-Whitney Test to show a statistically significant (.0003) effect size at the .05 level on the number of IEP goals contributed between groups.

Martin et al. (2006) showed a statistically significant difference using a Chi-square test between groups in who started (.57) and lead (.35) the meeting as well as the percentage of completed steps of the Self-Directed IEP process (.27). Powers et al. (2001) used a t-test to demonstrate a statistically significant increase between the treatment and wait list groups for student initiation (8.52) but not for student participation (1.85).

Van Reusen and Bos (1994) showed a statistically significant difference using a one-way ANOVA test between treatment and control students in the categories of student identified goals ($F(1,19)=5.31$, $p=.033$), student identified learning strengths

(F(1,19)=13.04, p=.002) and student identified learning weaknesses (F(1,19)=4.99, p=.038). There was also a statistically significant difference between the number or goals identified by the student at the conference (F(1,18)=7.94, p=.01). Van Reuson et al. (1989) found a statistically significant difference at the .05 level between the treatment and control group on both the number of relevant contributions (u=4, critical values=15) and the positive relevant contributions (u=0, critical value=15).

Seven of the studies reported procedural reliability, with a mean reliability of 98.9% and a range of 97-100. Thirteen of the studies reported inter-observer reliability, with a mean of 95% with a range of 97-100. Additionally, nine of the studies addressed social validity, generally through student and teacher perception of treatment acceptability. The studies reported high ratings of acceptability by both teachers and students.

Chapter 4: Discussion

WHAT IS MEANINGFUL INVOLVEMENT

Researchers agree that simply inviting students to attend an IEP meeting does not guarantee meaningful student involvement (Thoma et al., 2001). Now that students are increasingly attending their IEP meetings, it is important to define what qualifies as meaningful involvement as opposed to a simple invitation to attend. There are four main categories of involvement addressed by the literature.

Relevant Verbal Contributions

At the most basic level, two of the included studies measure for quantity of relevant contributions to the meeting made by students (Martin et al., 2006; Powers et al., 2011). Both of these studies used specific interventions that prepared students for what type of contributions they could make to the meeting. Any relevant contribution was accepted as a positive. This type of measurement seems to work well with students who are able to decide when and what contributions they should make during an IEP meeting. It also allows for contributions that do not necessarily fit a rubric. For example, if a student talks about chores they complete at home, that might not necessarily score as a point on some of the rubrics presented in the included studies, but it would be a positive contribution to the meeting by providing an example of a student's strength in the area of independent living.

Contributions of Strengths, Needs and Preferences

Thirteen of the 14 research studies allowed some points on a rubric for student-identified strengths, needs and preferences as a dependent variable. Not only should these strengths, preferences and needs be a driving factor in a meeting per IDEA, but they also help the student to feel as if the meeting truly is focused on their own specific set of circumstances. Again, there is wide variety in the constructs of the measurements by each of the researchers, some of which are tailored to a specific disability population. For example, students with moderate intellectual disabilities are likely to need more practice before the meeting and help with focus during the meeting with identifying strengths, needs and preferences in all transition areas (i.e. education, employment, personal skills, daily living, housing and leisure) (Allen et al., 2001). Students with orthopedic impairments might need to focus on specific accommodations needed for the transition to disability services at a university. While the specific areas of strengths, needs, and preferences will vary based on the individual, it is important for students to learn how to identify their own strengths, needs and preferences, and to be able to articulate these in a planning meeting.

Review of Past Goals and Identification of Future Goals

Goal setting is an important part of the IEP process, but one in which students are not always involved (Agran & Hughes, 2008). Some students may not know what goals are on their IEP, how to set goals for the upcoming year, and/or how to judge their progress toward their goal. All of the included interventions address goal setting with the

overall implication that students should be taught how to identify a goal and how to present that goal at a meeting. Again, the content of the goals depends on how the student responds to the goal setting request . A student with behavioral concerns might not suggest a goal related to reducing problem behavior. However, by contributing another goal that aligns with their own vision of their strengths and needs, they can become more invested in their overall IEP. Also addressed in several of the studies is a review of the previous years goals and assessment as to whether those goals were met. This skill is valuable to developing self-determined behavior because it holds students accountable for meeting their goals and allows for reflection about the degree to which the goals were accomplished. This may become even more meaningful once students have been meaningfully involved in their IEP for more than a year since they would be reporting progress on the goals that they helped develop.

Leading of the Meeting

As previously stated, the goal of the Self-Directed IEP is to have students take a leadership role in the IEP meeting, as opposed to the TAKE CHARGE For The Future and Self-Advocacy Strategies, which are aimed at increasing student contributions during the meeting. While leading the meeting is not the only factor in students' meaningful participation in the meeting, students who are comfortable and confident in leading a meeting would also likely be comfortable contributing their thoughts and opinions to the meeting. Caution should be used to avoid simply setting a list of tasks for students to perform (i.e. make introductions, pass out agenda) since these skills in themselves do not

lead to meaningful contributions by students. The skills addressed in the Self-Directed IEP program (i.e. ask questions, ask for feedback, deal with conflict) have the added benefit that they are useful in other formal meeting settings (i.e. doctor's appointments or discipline meetings). While not all students will have the prerequisite skills or motivation to lead their IEP meetings, student leadership of the meeting can allow for practice of self-determination skills and increase meaningful involvement by students.

Establishing a Definition of Meaningful Involvement

Based on the studies included in this literature review and the requirements of IDEA, a working definition of meaningful involvement was developed. Meaningful student involvement in an IEP meeting can be defined as a student making relevant verbal contributions regarding their strengths, needs, preferences and goals related to one or more of the following areas: education, vocation, daily living and personal life. This definition applies to all students served under IDEA and establishes the need for the meeting to be driven by the student and their needs.

WHAT EFFECTS DO CURRENT INTERVENTIONS HAVE ON MEANINGFUL INVOLVEMENT

Both the Self-Directed IEP and Self-Advocacy Strategy are considered evidence-based practices according to the National Secondary Transition Technical Assistance Center. All of the included studies showed a positive correlation between these two interventions and some measure of meaningful student involvement. Since the goals of the various programs reviewed, as well as the way their effectiveness is measured, vary

greatly, it is difficult to make any comparisons between programs as to their effectiveness.

Although only the one included study demonstrated the effectiveness of the TAKE CHARGE For The Future strategy, the results are promising. This intervention is relatively new and is also more wide reaching and involved than the other two interventions addressed. Its focus is not only on increasing students' self-determination in the IEP process itself but in all aspects of their current and future planning.

LIMITATIONS

One limitation of this literature review was the narrow scope of the dependent variable used as exclusionary criteria. Studies were required to have some observation or recording of a real or mock IEP meeting to meet inclusion criteria which is both time consuming as a researcher and hard to do with a large number of participants. Many valuable studies use questionnaires or surveys to measure the dependent variable related to student involvement. These were not included.

Another limitation is the wide array of dependent measures used. While all of the studies using the Self-Advocacy Strategy included relatively similar rubrics, studies using the Self-Directed IEP or TAKE CHARGE curriculum varied widely in the way they measured meaningful student involvement. The lack of uniformity made it difficult to compare results between studies. Some of the studies used a researcher generated scoring rubric for their given study which can limit validity of results since they have not been normed on any other students and can be tailored to fit a specific curriculum.

IMPLICATIONS FOR FUTURE RESEARCH

Future research should address several areas. The first is to ensure that culturally and linguistically diverse students and students with diverse disabilities are included. A majority of the research has been conducted with Caucasian students and students with learning disabilities. Researchers need to expand the evidence of the effectiveness of these interventions to students from diverse backgrounds and with other disabilities such as autism and hearing and visual impairments.

Future research should also address the generalization and maintenance of the skills learned during these interventions. Almost all studies included lasted less than a year. Research should address student benefits from multiple years of exposure to the curriculum of the interventions. Research should also address meaningful participation continuing in subsequent annual IEP meetings with different participants and if skills acquired during the interventions carry over into other meeting environments such as doctor's appointments or vocational rehabilitation meetings.

Finally, research should address the effect of setting on the effectiveness of interventions. With more and more students being included in general education classes, special education teachers have less time to conduct long, individualized lessons in resource or self-contained settings. Researchers can address this by providing the interventions in general education settings or in larger class resource settings. Research could potentially also address the positive impacts that these interventions could have on general education students so that inclusion classrooms could use these interventions for all students.

IMPLICATIONS FOR PRACTICE

The results of the included studies provide evidence that multiple interventions are available in schools to increase meaningful student involvement in IEP meetings. Teachers need to become familiar with established, evidence-based practices to address student involvement and implement these practices in the classroom. While this can seem like an optional area of instruction not specifically related to academics, the importance of student involvement in the IEP process cannot be overstated. Not only is it legally required, but it provides students a naturally occurring opportunity to learn and practice self-determination skills.

Practitioners should also be encouraged to consider the various ways students can be meaningfully involved in their IEP planning process. With younger students, simply taking an inventory of strengths, needs and preferences and providing the results in the meeting can be an important first step in becoming more meaningfully involved. For students who can handle the responsibility and might soon need the skills in a disability services meeting at a post secondary institution, learning how to lead a meeting will be beneficial. Considering the specific strengths and needs of students can determine how they can become meaningfully involved in the IEP process.

Appendix A:

Probes Used in Self-Advocacy Strategy (Van Reusen et al., 1989)

1. (Student's Name), what do you think are your strongest study or learning skills?
2. Can you tell me what you think are your weakest study or learning skills?
3. What skills do you want to improve or learn over this next year that will help you to do better in school or get along better with other people?
4. Can you tell me about any activities or materials that teachers have shared with you in the past that have helped you learn your school subjects?
5. Are there any after-school activities, such as sports, jobs, or clubs, in which you want to become involved?
6. Many students at your age have begun to think about careers or jobs they might like after they finish high school. Upon graduating from school, what kind of job or career would you like to pursue?
7. What types of study or learning activities work best for you?
8. What size learning or study group works best for you?
9. I'm sure you've taken a lot of tests during your years in school. Can you name or describe the type of test items on which you do best when taking tests over material you have learned?
10. Is there anything we've overlooked or something you'd like to say about school or any other area you are concerned about?

Appendix B:

Sample Rubric for Self-Directed IEP (Ardnt et al., 2006)

UNIT 1

Lesson 1. Begin meeting:

1. State the purpose
    a. to review goals
    b. to state progress toward goals
    c. to set new goals

Lesson 2. Introduce everyone:

1. Parents
2. Local education area representative
3. General education teacher
4. Vocational teacher
5. Special education teacher

Lesson 3. Review past goals and performances:

1. State past goals
2. Discuss how you did on these goals
3. Ask others for feedback on your performance

Lesson 4. Ask for others' feedback:

1. Acknowledge that feedback can be written (e.g., a test score), verbal (e.g., a comment), or physical (e.g., a frown or smile)
2. Recognize that feedback gives information about your actions
3. Understand that feedback tells you how good your actions need to be to accomplish your goal

Unit 1 Total Points (14 total points available)

UNIT 2

Lesson 5. State your school and transition goals:

1. Education: Explain what goal you want to meet in school
    a. Identify your interests
    b. Identify your skills
    c. Identify your limits
2. Employment: Explain what goal you want to meet toward getting a job
    a. Identify your interests
    b. b. Identify your skills
    c. c. Identify your limits
3. Personal: Explain any goal you may want to meet in the area of hobbies, fun/recreation, relationships, health
    a. Identify your interests

b. b. Identify your skills
c. c. Identify your limits

4. Housing, daily living, and community participation
    a. Identify your interests
    b. Identify your skills
    c. Identify your limits

Lesson 6. Ask questions if you don't understand:

1. Use eye contact
2. Use a polite and respectful tone of voice
3. Ask for help if you don't know how to ask a question

Lesson 7. Deal with differences in opinion:

1. ***L***isten to and restate the other person's opinion
2. ***U***se a respectful tone of voice
3. ***C***ompromise, or ***C***hange your opinion, if needed
4. ***K***now and state the reasons for your opinion

Unit 2 Total Points (19 total points available)

UNIT 3

Lesson 8. State the support you will need to reach your goal:

1. Explain what help you will need in school
    a. small groups
    b. individual help
    c. study guides
    d. extra time
2. Explain what help you will need on the job
    a. transportation
    b. job coach/buddy
    c. hygiene
    d. social skills
3. Explain what help you will need with personal
    a. hobbies
    b. relationships
    c. fun/recreation
    d. health
4. Explain what help you will need with
    a. housing
    b. daily living
    c. community participation

Lesson 9. Summarize your current goals:

1. State your goals in your own words
2. State what actions you will take to meet your goal
3. Tell how you will receive feedback

Lesson 10. Close meeting:

1. Good eye contact
2. Use a pleasant tone of voice
3. Thank everyone for coming

Unit 3 Total Points (12 total points available)

Appendix C:

Sample Rubric for Self-Directed IEP (Kelly et al., 2013)

Step	Objective	2= correct	1= partially correct	0=incorrect
1	Begin meeting by stating purpose	States all three purposes of meeting "Today we are here to review my goals, look at my progress with these goals and set new goals	Says only one or two purposes out of the three previously learned	Does not start the meeting Does not state any of the three purposes for the meeting
2	Introduce everyone	Introduces all members by saying. "This is (name), my (role). I invited them because (why)."	Only introduces one person or does not say his or her name and/ or define his or her role	Does not introduce anyone at the meeting
3	Review past goals and performance	For each past goal states: the goal, the action taken, feedback, and support	States the goal but omits action taken, feedback, or support	Does not review past goals or performance
4	Ask for others' feedback	Asks for feedback from others and discusses their progress made	Asks for feedback from others, but does not discuss progress made Discusses progress made, but does not ask for feedback from others	Does not ask for any feedback from others or discuss progress made
5	States school and transition goals	States three new goals related to education, employment, or independent living	Only states one new goal Only states two new goals	Does not state any new goals Goals are not related to education, employment, or independent living

6	Ask questions if you don't understand	Student asks questions about the IEP or says they have "no questions" Might say, "Excuse me, I don't understand or could you explain that to me?"	Asks questions that are off topic and unrelated to the IEP Whispers a question to teacher or parent to ask the question for them	Does not state they have "no questions" or ask any questions
7	Deal with differences of opinion	Uses the LUCK strategy (listens, maintains respect [tone of voice and eye contact], compromises or changes opinion, knows why they have their opinions)	Does not use appropriate tone of voice (raises voice, mumbles, shows anger, cries) Does not maintain eye contact for a majority of the meeting (stares at floor or outside window)	Interrupts others when talking and is not willing to listen or compromise in any way throughout the meeting
8	State what supports are needed	Says need and support "I will need (what or who) to help me do (what).	States a need but does not state the support States the support but not the need	Does not indicate a need or support
9	Summarize goals	For each new goal, states the goal, the action to be taken, how feedback will be received, and support needed to meet the goal	States the goal but omits action taken, feedback, or support	Does not summarize new goals, actions, feedback, or supports needed to meet the goals
10	Closes meeting by thanking everyone	Says, "Thanks for coming and thanks for all the help you've given me this year. I'm glad you'll be able to help me with my goals."	Closes meeting and dismisses everyone without saying thank you for coming	Does not close the meeting Does not say the word "thank"

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