

Episodic Memories of
Participation in Music Performance Classes

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CHAPTER I

BACKGROUND

Every moment lived creates a memory that is either remembered (or forgotten). These memories, or experiences, whether conscious or subconscious, guide the decisions people make and their values. Research in memory and education may shed light on how the experiences teachers provide for students in their classrooms each day influence these students' future preferences and choices.

Types of Memory

Declarative memory is explicit long-term memory that is stored as facts, knowledge, and events. In the 1970s, Endal Tulving identified two types of declarative memory as semantic and episodic.¹ *Semantic memory* is the retention of concepts and language, memories that are non-experiential and are easily transferred to various environments and circumstances. The ability to label unfamiliar objects based on their characteristics is due to semantic memory. This allows the formation of generalized concepts that can be recalled to assist with new or unfamiliar circumstances.² *Episodic memory*, which is autobiographical, documents specific events and usually involves emotions or an individual perspective that may change over time.

Semantic memories begin as episodic memories, but are gradually transferred from temporary storage in the hippocampus to long-term storage in the cerebral cortex, imprinted as semantic information.³ Consider that children first learn spoken language

¹ Tulving, Endal and Wayne Donaldson, ed. *Organization of Memory* (New York: Academic Press, 1972), 381-389.

² For example, most people commonly refer to an object with a flat broad surface and four legs as a table, even though there are many different types of tables.

³ Carter, Rita, *Mapping the Mind* (Berkeley: University of California Press, 1998), 161-162.

within an environment and from a source, but after a few years, the original environmental context usually fades, leaving the semantic information – the language – imprinted in memory without its original context. Like semantic memories, episodic memories can also become imprinted on the cerebral cortex for long-term storage and retrieval.

To prevent confusion and overload, the human brain is wired to retain important information and forget information deemed unnecessary.⁴ The frequency in which people recall the stored information determines its importance. Semantic memories used in various contexts as facts have a low probability of being forgotten. By contrast, episodic memories are created in specific environments and situations and are thus linked to these contexts, so they are more likely than semantic memories to be forgotten over time, unless there is a strong emotional component. In general, only certain aspects of episodic memories are forgotten rather than entire memories. For this reason, the brain may be able to identify and recollect the initial location where a familiar song was first heard, but not retrieve other environmental cues that were originally imprinted with it.⁵

The process of retrieving episodic memories is known as *ecphory*⁶ and usually occurs when an environmental cue triggers a sensory impression associated with a given memory. Episodic memories linked to strong emotions remain in the hippocampus much longer than those without strong emotional connections. Extremely emotional episodic memories, such as phobias or flashbacks, are stored in the amygdala.⁷

⁴ Purves, Dale, et al, *Neuroscience* (Sunderland: Sinauer Associates, 2004).

⁵ Ibid

⁶ Tulving, Endal and Wayne Donaldson, ed, *Organization of Memory* (New York: Academic Press, 1972), 381-389.

⁷ Carter, 164.

Memories may become distorted when similar events occur in similar contexts; this process is known as *misattribution*. After the 1995 Oklahoma City bombing, an eyewitness thought he had seen a man with bomber Timothy McVeigh, which started a nation-wide manhunt for the second John Doe. As it turned out, this witness had confused Timothy McVeigh with a man he had seen in the same building a day earlier in the company of a friend who matched the description of the second John Doe. The witness was mistaken; Timothy McVeigh had been alone.⁸

Most research in the field of education has focused on the retention of semantic content because this content is taught and assessed by teachers.⁹ In addition to being an important factor in retaining semantic memory, episodic memory through experiences likely plays a role in the choices adolescents and adults make regarding school and throughout life.

Episodic memory may play a more critical role in performance music education than in most core education classes. Typical music performance classes¹⁰ do not involve individual desks and solitary learning, but rather, an environment that facilitates collaboration and socialization. This type of classroom setting is more conducive to emotional episodic memories. Music making is a social activity that can arouse physical feelings and emotions within music performers.¹¹ This can create emotionally-charged, and thus, more easily retained, episodic memories. Music classes are usually electives. Students choose to sign up for elective classes, indicating a greater sense of interest in and strong

⁸ Schacter, Daniel L, *The Seven Sins of Memory* (New York: Houghton Mifflin Company, 2001), p.91-92.

⁹ Semb, George B. and John A. Ellis, "Knowledge Taught in School: What is Remembered?" *Review of Educational Research*, vol. 64, no. 2 (Summer, 1994), .

¹⁰ A *music performance class* for the purpose of this paper is a course offered by a school and taught by a certified music instructor employed at that school. All students perform in the class and there is a strong focus on improving students' instrumental and/or vocal performance.

¹¹ Elliott, David, *Music Matters: A New Philosophy of Music Education* (New York: Oxford University Press, 1995).

feelings about the course, and suggesting that they may pay closer attention during class time.

Purpose

The purpose of this study is to investigate adults' episodic memories of participation in music performance classes they took while in secondary school. The results of this study along with further research may lead to a better understanding of how the teacher and classroom environment influence students' musical choices and personal feelings about music after they leave school.

Method

This researcher interviewed consenting adults who participated in music performance classes while in high school. The researcher sought to determine whether participants' personal memories (or the emotions attached to them) affected their current musical choices and participation.

Delimitations of the Study

The population for the study was selected from adults eighteen years or older who are not currently enrolled in secondary school, but participated in a music performance course during their years in secondary school. Examples of music performance courses included, but were not limited to, ensembles such as band, choir, or orchestra, and performance classes such as piano or guitar class. Although episodic memories can contain semantic and procedural information, this researcher only examined episodic memory.

CHAPTER II

REVIEW OF RELATED LITERATURE

This literature presented in this chapter is divided into three sections. The first pertains to nonspecific long-term memory and students' retention of knowledge, concepts and experiences. The second examines retention and recollection of episodic memory. The third section examines the retention of musical memories and its impact on choice and preference.

Retention of Long-Term Memory

Semb and Ellis compared fifty-six articles in an effort to synthesize findings about retention of memories after the completion of the learning process.¹² These researchers found that students initially retain most of what they learn in the classroom, but the amount retained decreases over time. Increasing the difficulty level of instructional content, using higher levels of original learning, and getting students more involved in the learning process facilitates better retention over time. The academic ability level of students does not affect retention.

Karsenty's qualitative study involved interviewing twenty-four Israeli high school graduates between the ages of thirty and forty-five who received post-secondary education (not focused in mathematics).¹³ He interviewed twelve men and twelve women in two-to-three-hour individual interactive sessions. Subjects were also asked to solve mathematical equations like drawing graphs of simple formulas such as $y=x$, and to explain the reasoning

¹² Semb, George B. and John A. Ellis, "Knowledge Taught in School: What is Remembered?" *Review of Educational Research*, vol. 64, no. 2 (Summer, 1994): 253-286.

¹³ Karsenty, Ronnie, "What do Adults Remember from their High School Mathematics? The Case of Linear Functions," *Educational Studies in Mathematics*, vol. 51, no. 1/2 (2002): 117-144.

behind their drawings of these equations. Results suggest that when subjects forget procedural information, they create new procedures for solving problems, and have difficulty adjusting their procedures back to previously learned techniques. Karsenty theorized that subjects retained logical thinking processes from mathematics rather than deriving them from the actual formulas themselves. His study concluded that the brain is willing to forget information that is not used, indicating for this study that adults may not remember specific events from their classroom experiences unless they have revisited those memories since their initial occurrence. Episodic memories with strong emotional ties, as previous studies have maintained, are more easily remembered. Thus, it is possible that a person may still be able to remember his or her classroom experiences through emotional lenses.

Retention of Episodic Memory

According to *Mapping the Mind*,¹⁴ episodic memories remain in the hippocampus for two-to-three years. During this time, the brain replays these experiential memories consciously and during sleep. As they are replayed, the memories are etched into the cortex until they can be retrieved without the use of the hippocampus. Episodic memories that become etched in long-term memory are usually attached to a strong emotion such as fear or love, which is also evoked when those memories are recalled.

Through a series of experiments, John Gardiner demonstrated that a person's ability to retain episodic memory was influenced by attention, which he defined as a perceptual variable.¹⁵ Gardiner asked participants in the experiment to either identify the gender or judge the potential reliability of each face shown in a set of images. Those who

¹⁴ Carter, 162.

¹⁵ Gardiner, John M, "Episodic Memory and Autonoetic Consciousness: A First-Person Approach," *Philosophical Transactions: Biological Sciences*, vol. 356, no. 1413 (2001): 1351-1361.

were judging reliability required more attention to do so, and were able to remember the faces better later in the experiment than those who were only asked to identify gender. In this study, this researcher assumed that, as Gardiner's research suggests, (1) any music-class memories retained into adulthood required the participant's careful attention during the experience in which it developed, and (2) the amount of attention paid when the memory was created will affect the vividness of the memory or succession of memories.

Daniel Schacter writes that recall of episodic memories may potentially be false, distorted, or blocked.¹⁶ As in the Gardiner study, if a person's attention is not great enough or directed appropriately, he or she may not retain certain elements of the memory accurately, which can cause *misattribution*. According to Schacter, John Gardiner discovered a type of misattribution known as *false recognition* in an experiment where participants studied a set of contextually-associated words. When asked later to identify which words were in the group, a large portion of participants falsely remembered studying similar words because of the contextual associations.¹⁷ Since misattribution may occur with episodic memories of past events, this researcher will focus entirely on participants' emotional lens rather than the accuracy of their recollections. Memories, whether accurate or not, may influence participants' subsequent decisions, choices, and personal feelings about music and their involvement with music.

Retention of Musical Memories

In a qualitative and quasi-quantitative study by Clifford Madsen and Steven Kelly, ninety music education majors responded to an essay question about their earliest

¹⁶ Schacter, Daniel L, *The Seven Sins of Memory* (New York: Houghton Mifflin Company, 2001), 12-16, 61-62, 138-139.

¹⁷ Underwood, Benton J, "False Recognition Produced By Implicit Verbal Responses," *Journal of Experimental Psychology*, vol. 70(1) (July, 1965): 122-129.

memories of wanting to become a music teacher. Madsen and Kelly categorized respondents' memories by age of the memories, where they occurred, others who were involved in them, and how the respondents felt when coming to the realization that they wanted to teach music. These categories will be used as a guide in assessing responses in this proposed study. Madsen's & Kelly's study suggested that most memories of deciding to become a music teacher occurred while participating in a high-school music class while other students and faculty were present. Some respondents had vivid episodic memories comparable to an epiphany, while others came to a decision gradually through increased performer confidence or leadership experiences. In addition, students who did not decide to teach music until college voiced ambivalence about their decision in the essay response.¹⁸ In this study, events led to a memorable life-changing career decision for many of the participating students. This suggests that life choices are remembered and could affect later decisions or preferences. The last two questions in the interview addressed participants' present choices to attend live music performances and to perform on an instrument. This researcher assessed the data from responses to determine a correlation, if any, between participants' experiences and their current choices.

Patricia Campbell led a qualitative study that assessed adolescent responses to a nationally-administered essay question about the importance of keeping music in the schools.¹⁹ Campbell and her colleagues divided 1,155 responses into five categories: (1) identity formation; (2) emotional benefits; (3) character and life skills; (4) social benefits; and (5) general positive or negative information about music in schools. From these

¹⁸ Madsen, Clifford K. and Steven N. Kelly. "First Remembrances of Wanting to Become a Music Teacher." *Journal of Research in Music Education*, vol. 50, no. 4 (Winter, 2002): 323-332.

¹⁹ Campbell, Patricia, et. al, "Adolescents' Expressed Meanings of Music in and out of School," *Journal of Research in Music Education*, vol. 55, no. 3 (Autumn, 2007): 220-236.

responses, the researchers concluded that adolescents think music is important for various reasons, but that the types of music courses offered to these young people need to be modified to fit their musical interests better. When combined with previous research results, this study indicated that students' musical preferences determined how much attention they paid in their musical performance classes. This information was integrated into the interview through question five, which asked whether participants enjoyed the music they performed in secondary school and the reasoning behind their enjoyment.

Summary of Related Literature

As seen in the first section of literature, memories fade over time. Specific knowledge can be forgotten, but a general understanding or concept will survive through semantic memory. Though semantic memory was tested in this body of literature, it can be inferred that episodic memory would also fade over time, and only parts of an experience or situation may be retained. Retention can be increased by a higher amount of attention paid during the initial experience. An emotional experience is more likely to be retained for longer, according to the second body of literature, because of the way that experience is imprinted in the brain. It is important to study memory retention and effects because, as the third section of literature notes, these experiential memories can affect decisions made later in life. Also, decisions teachers make in the classrooms concerning the classroom environment, and in the case of performance music, musical selections, can affect the attention of students, which can affect retention.

CHAPTER III

METHODOLOGY

Data for this research was derived from interviews this researcher conducted using a nine-question interview script (See Appendix A). Before conducting any interviews for this study, this researcher tested the interview script among peers to identify bias, ambiguity, and other problems. Any issues in the questions were resolved.

The first two questions obtained identification information regarding the participant's gender and age. The third question clarified participants' musical participation background. Question four was an open-ended question that asked the participants to describe their music classroom environment. Question five asked whether participants enjoyed the music they performed, and then asked for a rationale. The sixth question, which was also open-ended to guard against leading participants to 'remembering' false memories, was qualitative. It asked participants to describe an episodic memory involving music. Question four preceded the sixth question intentionally, to prime the thought process. By allowing participants to remember classroom environments first, they were more accurately and clearly able to recollect episodic memories associated with the environments. It was expected that Question Six would evoke a variety of responses, but this was deemed preferable to risking misattribution and its adverse effects on research data. Question seven asked if participants enjoyed their overall experience in class. It was intentionally posed after the sixth question to determine whether a positive or negative experience affected participants' overall experience within the class. Questions eight and nine inquired about the participants' current music participation and appreciation.

The study included ten randomly-selected adults who meet three criteria: (1) they were adults of at least eighteen years of age but not more than 88 years of age; (2) they

attended, but were not currently attending, secondary school; and (3) they participated in a performance music class while attending secondary school. The music performance course did not need to be taken at the school from which the respondent graduated, but must have been taken with a trained music educator as the instructor. All participants took their course at the school they attended.

This researcher contacted the West County Center in Des Peres, MO, for approval to use the venue as a site for data collection. Because of its location and the stores available, it was thought to include a more diverse population of adults than other shopping malls within proximity. A busy day was selected to ensure a larger population of adults and, therefore, a higher number of potential interview participants.

A digital phone was used to record participants' responses. To ensure anonymity of responses and to allow for proper organization and future reference, each interview was coded based on gender and age. No names or any other information was taken during the interview process that violated participants' privacy. Respondents were not monetarily rewarded for their participation in the study.

Methodological Adjustments

The researcher used more than one venue for collecting data because the pool of eligible participants at venue selected initially was smaller than expected. West County Shopping Center was busy during the initial round of interviews, but many shoppers were suspicious of strangers coming to ask them questions. Other shoppers expressed that they were too busy or otherwise occupied to answer questions. In addition, few people admitted to previous enrollment in a music performance class. One gentleman stated that he had not performed in any music class because when he was in school, students were either in sports

or in music, but never both. None of the interviews this researcher conducted on the first visit to West County Shopping Center were suitable to be used in this study.

This researcher chose Forest Park as a second data-gathering venue. Runners and volunteers at a running benefit for cancer were asked to participate as people waited for the race to begin. This crowd was much more willing to participate in the interviews than was the crowd at the mall, though a low percentage of the population acknowledged having participated in a performance music class during secondary school.

After obtaining suitable interviews at Forest Park, West County Shopping Center was attempted a second time. The food court was chosen around lunchtime on a weekend in hopes of interviewing a large pool of more cooperative candidates. Though there appeared to be suspicion amongst some consumers, a few people agreed to participate in the interview.

Because of the large number of interviews at Forest Park versus West County Shopping Center, a third venue was selected at a different park. It was also the spot for a charity running event on the day of the interviews.

During each interview, the researcher used the script as a guide. The questions were not stated the same way every time. Each participant determined the presentation of interview questions based on responses to previous questions. If a participant elaborated on his or her classroom, revealing further information regarding their opinion on the music or the classroom experience as a whole, it was not necessary to have him or her reiterate that statement later in the interview.

Because the interview script was only used as a guide, questions varied in statement and response. Question four, which asked participants to describe their classroom environment, was especially varied. As there are so many aspects to a classroom environment, it was important to provide sub-questions that illuminated specific aspects of

the classroom to help the participant remember their environment more vividly. When each question focused on one environmental aspect at a time, participants were able to answer them at a faster rate than when asked to describe the classroom environment in its entirety.

The questions asked are as follows:

How many instructors did you have?
How many students were in your class?
What was the room set-up?
How often did your class meet during the week?

As with other interview questions, not all were posed to every participant since some participants elaborated or gave answers to more than one at a time. Overall, the purpose of this question was not to obtain the answers themselves, but to allow the participant to remember specific aspects of the performance music class. In doing so, they would be able to recall a memorable experience associated with that class more easily.

Question eight was also adjusted during the interview process. The question asked “Have you attended any live musical performances in the past year?” An affirmative response received a follow-up question asking participants to estimate the number of times they attended such performances unless the participant provided that information without the question being asked.

Question five was also adjusted by leaving it to a ‘yes’ or ‘no’ response, eliminating the explanation. This was an error. It was forgotten the first few interviews, and then remembered for later interviews. Instead of leaving the first few blank, the decision was made to eliminate “why or why not” when asking whether participants liked the music. Most participants liked the music and if they did not, they explained their reasoning behind not enjoying the music.

CHAPTER IV

DATA COLLECTED: INTERVIEW SCRIPTS

Data was collected from three different venues. The first few participants were interviewed at Forest Park in St. Louis, where a running event was being held as a benefit for cancer. The second venue was in the food court at West County Mall during a busy Saturday lunch hour. The third venue was at a different park west of St. Louis, also gathered at a running event. Data was collected using a digital device app called *iRecordIt*, developed by SER_INT. Participants were selected as randomly as possible by the researcher, though when participants are selected, there is inherently some form of bias in the selection. This researcher only interviewed participants who met the criteria of having participated in a performance music program in secondary school and were willing to be interviewed.

The pool of participants itself was diverse, as they were interviewed at three different venues in different parts of town visited on different days. Two of the venues were outdoor running events, which potentially limited the population to those who are interested in running, event volunteers and supporters were also recruited for the study. Also, as both events were charity events, some of the population may not have had anything to do with the run. It is unlikely that ten people could represent a truly heterogeneous sample, especially when they are all in the same town, and likely live in that town, but the participants in this study were certainly diverse in the categories of age and gender.

The researcher's selection of participants was also not entirely random, as her decision to approach a potential participant indicated some bias, known or unknown. However, this researcher believes that random selection came from the small percentage of the populations at each venue that was enrolled in a performance music class in school.

Those who responded in the affirmative and agreed to participate represent a random aspect of the sample. Participants were not sought out, but happened to be in the same area as the researcher while the question of enrollment was posed. Therefore, even with a small group of participants, selection of participants within the potential pool was by chance.

Throughout the data collection, a total of fourteen interviews were recorded. Due to a malfunction of the app, only ten interviews were uncorrupted and able to be played back for data collection. The other four were corrupted files and were deleted. The following data is from the ten uncorrupted files. Participants' comments are not written verbatim, but the substance of their message has not been altered in any way.

Interview Transcripts

Participant One: Male, 57 years

Participated in: High School Band

Participated for: Four years

Enjoyed music performed: Yes

Enjoyed experience overall: Yes

Performance music classroom environment:

Instructors and room set-up: "There were actually two [instructors], and it was just a semi-circle [set-up with] different levels. It was a big room. Freshman year it was eleven guys learning how to play the instrument, and then Junior, Sophomore, and Senior year you would work in with the rest of the kids and the rest of the band."

Total number of students: "There may have been fifty or forty."

Classes per day/week: "[We met] once a day."

Number of performances per year: "I think two main ones in the gym for school, but then we would go to competitions maybe twice back then.... So you competed against other high schools."

Memorable experience in this classroom or during performance:

“I don’t know. Performing on stage was fun. I mean... it was a little different than it is now.... My kids were in jazz band and stuff like that. It was a little different than back then.”

“I remember going to Kiel Auditorium one time, and things like that.”

Attended live musical performances in the last year: Yes. “I can’t even tell you how many.”
Approximately 1-5 performances.
Currently performs vocal or instrumental music: No

Participant Two: Male, 27 years

Participated in: Middle school/high school band

Participated for: Seven years

Enjoyed music performed: Yes

Enjoyed experience overall: Yes

Performance music classroom environment:

Instructors: “In band, I had just one teacher”

Total number of students: “I guess maybe forty.”

Room set-up: “It was like a band room, so there [were]... built-in risers.... A half-circle [set-up] around the conductor podium.”

Classes per day/week: “It was a class, so every day.”

Number of performances per year: “I think we had two a semester, so maybe four. I was in the jazz band also, which was afterschool.”

Memorable experience in this classroom or during performance:

“We...got to do this opening of this community center... There was this community center that opened [in Kansas City] The mayor’s son was in our class, so we got to... play for the opening of the community center. It was fun.”

If applicable: identify the music that was being performed at or around the time of the memory (title, composer, performing ensemble, etc.): “That was the jazz band and I forget what we played.”

“In band, we just did normal band music. I think we did some Beatles arrangements for band.”

Has attended live musical performances in the last year: Yes. Approximately 1-5.

Currently performs vocal or instrumental music: “No, though I majored in music, so I used to, but I do not anymore.”

Participant Three: Male, 45 years

Participated in: Middle school band, played clarinet

Participated for: Four years (5-8 grades)

Enjoyed music performed: Yes “I wasn’t very good.”

Enjoyed experience overall:

Performance music classroom environment:

Instructors and total number of students: “We had one instructor and in the neighborhood of generally twenty to thirty band people.”

Room set-up: “I seem to recall that we were segregated by instrument. I was on the left with a bunch of girls in the clarinet section. The horns would be on the right, the drums in the back. That’s kind of what I remember. It was very arch-y.”

Classes per day/week: “I think we had class every day. Well, not all years, but in junior high it was every day.”

Number of performances per year: “Two.”

Memorable experience in this classroom or during performance:

“I just remember being in an auditorium. I was... the last chair clarinet and trying desperately not to squeak my horn. My main goal was to not make any squeaky sounds.”

Has attended live musical performances in the last year: Yes, one (Bare-Naked Ladies)

Currently performs vocal or instrumental music: Yes. “I do not play clarinet. I do play a little bit of drums with my son who plays guitar and drums, so I bang around on the drums (not professionally).”

Participant Four: Female, 60 years

Participated in: Middle School and High School Choir (also piano on the side)

Participated for: Seven years (three years piano)

Enjoyed music performed: Yes

Enjoyed experience overall: Yes

Performance music classroom environment:

Instructors: “We would have had one for each year, so I would have had.... Well, actually between the two [schools] we really only had three teachers because the teachers stayed the same.”

Total number of students: “In the actual choir part...that was outside of regular school time – that was thirty (Either use numerals here in every transcript, or use text to express numbers. Don’t mix the two.) of us.”

Classes per day/week: “We had music once a week during grade school and high school, but then...I was in a choir that met outside of school time related to the school.... [The choir] met just once a week for about an hour and a half.”

Number of performances per year: “That’s hard to say because for... grade school we would actually sing at the masses, so that was... every week we would be singing. And then we would do a performance usually three times a year. In high school, we would do performances probably about six times a year because we were doing benefit performances.”

Memorable experience in this classroom or during performance:

“Probably the most fun [memory] was in high school we did operettas every year, so we had full-scale productions including costumes and everything.”

If applicable: identify the music that was being performed at or around the time of the memory (title, composer, performing ensemble, etc.): “The first [operetta] was *South Pacific*. We [also] did *My Fair Lady*, *Brigadoon*, and the fourth one...I don’t remember.” On the comment referring to her great memory, she replied “Gotta think of the costumes, that was the easiest way [to remember].”

Has attended live musical performances in the last year: Yes, attended St. Louis Symphony about four times, the Muny four times, the Fox once, and some community symphony benefits

Currently performs vocal or instrumental music: No

Participant Five: Female, 26 years

Participated in: Band (grades 5-12)

Participated for: Eight years

Enjoyed music performed: Yes. “I kind of got tired of it.” When asked why: “Oh my gosh, the class every day, practicing the same thing over and over.”

Enjoyed experience overall: Yes “I met a lot of good friends. That’s where most of my friends were.”

Performance music classroom environment:

Instructors: “In high school we had one band director and two assistants, I think.”

Total number of students: “Maybe fifty in our high school band”

Room set-up: “The band room was a pretty big room. [The chairs] would [be] set up like [they] would be to perform.”

Classes per day/week: “We had class every day and then practice before school every morning. During the marching season...during the fall, we had to meet early every morning. Then we had our regular class time inside. And then, during the Spring, we would just have our regular class time every day.”

Number of performances per year: “Besides the weekly performances at the football games, probably two or three times a year.”

Memorable experience in this classroom or during performance:

“We were outside practicing marching and our band director was pretty strict... It started raining, and he made us stay out in the rain and keep playing.”

Has attended live musical performances in the last year: No

Currently performs vocal or instrumental music: No “I don’t even know where it is”

Participant Six: Female, 28 years

Participated in: Middle School Band

Participated for: Two years

Enjoyed music performed: “Yeah, I did. For a little bit.” (Hesitant)

Enjoyed experience overall: “Overall, yes”

Performance music classroom environment:

Instructors: “We only had one teacher.”

Total number of students: “Roughly about thirty students.”

Room set-up: “We would practice in our auditorium on the stage.”

Classes per day/week: “We met twice a week.”

Number of performances per year: “Only about two.”

Memorable experience in this classroom or during performance:

“I guess during practice (I played the clarinet) I was still learning and... I had to practice in front of the whole class and I was still a little shy about doing that. So, that was one memorable moment of just performing... by myself in front of a group of people.”

How often: “I only did it once. I got called out in class.”

Has attended live musical performances in the last year: No “Last year, no”
 Currently performs vocal or instrumental music: No

Participant Seven: Female, 71 years

Participated in: Choir
 Participated for: Still participating
 Enjoyed music performed: “Oh, yeah”
 Enjoyed experience overall: Yes

Performance music classroom environment:

Instructors: “Now at the church there is a music director a band. There [are] a lot of people together with it, not just a nun.... When I started out it was a one-person type of thing.” (Just one nun taught the class)

Total number of students: “Back then, I guess there were about thirty of us, because... we had nothing else to do. There were no computers, there was nothing else, everyone just enjoyed being together and doing something.... We were always told that ‘singing was praying twice’, and we just thought that was a nice way of expressing.... We were all brought up with a lot of singing and music, that’s all.”

Room set-up: “Either in the classroom or the church, or in the school hall.”

Classes per day/week: “We would only do it about once a week, because we’d do it for church every Sunday or whatever. That’s like my own kids, after I got finished teaching, we did a lot of singing, too.”

Number of performances per year: Every Sunday at church services: “Not perform, but we sang.... We all sang songs and learned different things for different seasonal things and stuff.... Like for Halloween... or Thanksgiving.”

Memorable experience in this classroom or during performance:

“It was so long ago.... Just that it put you in another... world and made you feel very upbeat about everything.... I was always very happy when I was singing. I guess that’s what I always remember because [singing] always had a message, and I just always enjoyed that part of it. And we were all happy in singing....

Has attended live musical performances in the last year: Companion stated: “She is taking us to the Symphony on Sunday!” Also has attended musicals, the Muny, and opera.
 Currently performs vocal or instrumental music: Yes, currently taking piano lessons, and sings in the church choir. Doesn’t consider it “performing”.

Participant Eight: Female, 44 years

Participated in: Band – marching and regular
 Participated for: Four years
 Enjoyed music performed: “Yeah! Yeah, I liked it.”
 Enjoyed experience overall: Yes

Performance music classroom environment:

Instructors: “One”

Total number of students: “I would say there was probably... forty-something.”

Room set-up: “Everybody faced the front, and... the band director stood in front, and the windows were all behind us.”

Classes per day/week: “Every day during school...”

Number of performances per year: “We played at the football games, and then there was... one parade, and then we had... a winter performance and a spring performance.”

Memorable experience in this classroom or during performance:

“I remember I was supposed to... come in and play a note [during a performance], and I was... the first person supposed to play and I...messed up. I remember that when we played in the band room we always sounded a lot better than we always did in the auditorium, it seemed like. It sounded like we were quieter [in the auditorium].”

If applicable: identify the music that was being performed at or around the time of the memory (title, composer, performing ensemble, etc.): “I don’t remember [the piece the participant messed up]. I remember we always played *Peter Gunn*.... That was... the big song we always played.”

Has attended live musical performances in the last year: Yes, approximately three.

Currently performs vocal or instrumental music: No

Participant Nine: Male, 43 years

Participated in: Middle school guitar class
 Participated for: One year
 Enjoyed music performed: “Yeah, I did. Wish I had stuck with it.... My son is five, he’s taking guitar lessons now.”

Enjoyed experience overall: “Yeah, it was good. It was that time of my life, I think we had some funerals in the family and I just kind of lost track of the guitar and got out of it for a while.... I wish I would have stuck with it.”

Performance music classroom environment:

Instructors: “Just the one.”

Total number of students: “A dozen”

Room set-up: “...It was in the cafeteria section... of our school.... Nothing special, we just went in and pulled some chairs out, and sat down by the tables and played.”

Classes per day/week: “Every day”

Number of performances per year: No performances

Memorable experience in this classroom or during performance:

None

Has attended live musical performances in the last year: “Not in the last year.”

Currently performs vocal or instrumental music: Informally with son

Participant Ten: Female, 55 years²⁰

Participated in: Flute lessons

Participated for: Two years, fifth and sixth grade

Enjoyed music performed: “I barely remember it. I don’t think the flute was my first choice of instrument. I really wanted to play guitar, but my parents wouldn’t let me. It wasn’t part of the program, so I took the flute.”

Enjoyed experience overall: “I did because I was glad that I had the experience of music and learning how to read music.

Performance music classroom environment:

Instructors: “We had one instructor”

Total number of students: “It was just a mix of kids in fifth grade. I think you had to be in fifth grade before you could actually participate. So we did. And, I chose to play the flute.... It wasn’t everybody, but it was probably... a third to half the class that was included; we didn’t have to pay any extra.”

²⁰ Participant #10 also took guitar lessons outside of school in grades 7th and 8th. “It was fun but frustrating because I couldn’t sing.... I had a guitar teacher that came to the house. I had lessons once a week, with Barry, the guitar teacher.”

Room set-up: “I think we were in either the cafeteria or we were in the room we use for music: the multipurpose room.... I think it was in the cafeteria I remember with stands and the tables were in the back.... We were sort of set up in groups, but it wasn’t like a formal music room you would see like some high schools have....”

Classes per day/week: “Maybe once or twice a week, because I remember... practicing the night before.”

Number of performances per year: “I think we had maybe two or one, but... you sort of build up to the performance.”

Memorable experience in this classroom or during performance:

“With my flute, I remember... always was ‘tu tu’ not ‘who who’ [referring to tonguing on the instrument]. I just remember that because I could never do it, and to me it didn’t make sense that you would have to go ‘tu tu’, I thought you would just blow and it’s a ‘who’. Anyway, it didn’t make a difference. So, I remember that and I remember that I was not very good at it. I could play Mary Had a Little Lamb and Marines Hymn. Those are my two really strong suits on flute. I couldn’t wait to be finished and go start guitar.”

Has attended live musical performances in the last year: Yes, four or five times at the Symphony. “I enjoy going to the Symphony and I enjoy things like that.”

Currently performs vocal or instrumental music: No

Response Analysis²¹

Of the ten participants successfully interviewed and recorded, four were male and six were female. Ages ranged from 26 years to 71 years, with an average age of 45.6 years.

Three participants were in their late twenties, three were in their forties, two were in their fifties, one was sixty, and one was 71 years old. The two eldest participants are also the only two from the group that were enrolled in choir in grade school. Age did not seem to play a factor in the strength of the emotional connection to the recollected memory.

Of these ten participants, six were enrolled in band, two in choir, one in guitar class, and one in flute class. It is possible that Participant Ten, who was enrolled in the flute

²¹ Appendix B is a summary chart of the participants and their interview responses.

class, was enrolled in a beginning-level band class as many schools in the area incorporate beginning flute instruction in band class. However, since she never directly stated that she was in band, Participant Ten's responses will be counted separately from those of the band respondents. The only participants enrolled in choir were female. There was a former orchestra student who was interviewed, but his responses were lost due to a corrupted file on the *iRecordIt* app.

Of the participants interviewed, one participant was enrolled in performance music for only one year, two were enrolled for two years, three were enrolled for four years, two were enrolled for seven years, and one was enrolled for eight years. The extent of Participant Seven's enrollment is unknown though she inferred that it was for an extended period of time. The average number of years that all known respondents participated in a performance class is 4.22 years.

Participants were allowed freedom to discuss their memorable experiences as much as possible. This freedom often resulted in "stream of consciousness" answers, as participants' episodic memories revealed more details while they were responding. Because responses were varied, they were labeled as either positive or negative and categorized as either occurring in a class or rehearsal or during a performance. Remembered experiences were labeled positive or negative by categorizing the emotions named explicitly or by analyzing the emotional connotation of vocabulary used by each participant during his or her recollection. Only Participant Nine was unable to remember a specific experience from his guitar class, in which he only participated for one year. As he continued the interview, he briefly mentioned other experiences in his life during the time he was in the class that affected his experience in the class and his decision to continue playing guitar.

Of the nine remembered experiences, four were positive and five were negative. Three of the four positive experiences were associated with a specific performance, while the fourth was a generalized memory involving an emotion that was experienced on several occasions, possibly during performances and in class. Three of the five negative experiences were associated with a specific class or rehearsal. Of the two negative experiences that were associated with a performance, one involved a fear of ruining the performance, and the other involved an actual mistake that the participant thought ruined the performance.

Only four participants were able to identify music from any of their experiences within the music performance class. Of the four, only Participant Four remembered the music that was attached to her specific memorable experience. The others identified music they performed often, in class or at a performance.

Seven participants stated that they enjoyed the music. Zero participants stated that they did not enjoy the music. Participant Ten said she did not remember the music, but was able to name two specific pieces she was able to perform: “Mary Had a Little Lamb” and “Marines Hymn”. Participant Six was hesitant to say she enjoyed the music, and Participant Five said she enjoyed it, but became tired of it.

All participants said they enjoyed their overall experience in the performance music class. No participants were asked to explain their reasoning, but Participant Five speculated that the reasoning behind her enjoyment of the class was social.

At the end of the interview, two follow-up questions were posed concerning current experiences with music. The first asked whether participants had attended any live musical performances within the last year. Seven of the ten participants had attended at least one live musical performance within the last year. These performances included St. Louis Symphony, musicals at the Fox Theater, the Muny, and even a Bare-Naked Ladies Concert.

The two eldest participants grossed the highest individual attendance totals of all participants, and as previously mentioned, were the only two participants enrolled in choir in secondary school, both recalling positive memories of that enrollment.

The second follow-up question asked participants if they still performed music anywhere. Out of all ten participants, only three still performed music. Of those three, only one performed for an audience at her church. The other two performed informally at home with their children – one on guitar, and one on the drums. Participant Two explained that he studied music as his major in college, but was among those who currently did not perform music anywhere.

CHAPTER V

DISCUSSION

The information from this pilot study is intended to assist with future research concerning episodic memory and music education. Though only ten interviews were successfully completed and recorded, this researcher gathered enough information to illuminate facets of episodic memories and music performance classes that could merit further research investigation.

Episodic Memory

This researcher posed Question Six, the question involving episodic memory, as neutrally as possible to allow participants the freedom to describe any memory without searching for one that fit a positive or negative emotion. Because of that, respondents recounted a fairly equal number of negative and positive memories. Events that are memorable after several years are held in long-term memory and are attached to an emotion. In this researcher's opinion, the recollections of these participants demonstrate this attachment, but further investigation is needed.

Consider Participant Eight who remembered messing up during a performance in an obvious place that was clear to the audience (or, at least to her teacher and peers). An experience like the one she described would be embarrassing. As she responded to the question, it was as if she was reliving that embarrassment. When she continued to discuss another more generalized recollection comparing her band's performances to the rehearsals, she continued a negative thought process. However, she participated in band for four years, and stated that she enjoyed her overall experience, so there must have been positive

experiences as well. It would be interesting to see if she would have recalled a memorable positive experience if a follow-up question had asked for one.

Because all participants appeared to go through a strong emotion during their recollections, a study examining emotions embedded in long-term memories might bring to light information that could influence parenting, psychology, and education. At what age do strong emotional memories start? Does the body experience the same physical feelings when the brain recalls past experiences? Do emotions within memories get stronger or weaker or stay the same as memories become older? To what extent do past experiences affect current and future decisions?

The only specific musical selections participants remembered were either well-known compositions or compositions that they performed more than once. Participant Four only remembered the names of her performed musicals (referred to as “operettas”) because she remembered the costumes, which added a visual connection in her memory. Perhaps if students become emotionally involved with a musical selection, they are more likely to store it into long-term memory. “A Movement for Rosa” by Mark Camphouse is an example of a work that has a strong connection to the Civil Rights Movement. The music incorporates motifs from the movement, including “We Shall Overcome”, a hymn that was sung by civil rights advocates at the time. If a performer has strong emotions concerning civil rights or the Civil Rights Movement and is made aware of these connections within the piece, it may create an emotional connection to the piece itself, allowing the work to remain in long-term memory storage.

A Multifaceted Experience and Choice

Despite the positive or negative emotions attached to their recalled memorable experience, all participants said they enjoyed their overall experience in their music performance class. Participant Five said it was because “that’s where most of [her] friends were”. Memories of performance music classrooms can involve many aspects: instructor(s), facilities, performed music, peers, social events, instrument or voice, competitions, awards, even trips. The study of episodic memories provides great insight into the multifaceted experiences within a performance music classroom.

Participant Five, who participated in a music performance class the longest out of the nine candidates remarked that she “got tired of...practicing the same thing over and over” during rehearsals. She continued to participate in band for eight years because the class became a social outlet for her. This may be why she recalled a negative experience: perhaps she remained in a class she did not enjoy because her friends were a part of the class. Also, had the teacher restructured rehearsals in a way to change up monotonous repetitions, Participant Five may have enjoyed the class. Participant Five does not perform anymore and did not attend any live musical events in the past year, likely because her enjoyment in band became social rather than musical.

In contrast, Participant Seven talked less about her peers and more about her emotional connection to the music, stating that she “was always very happy” when singing and enjoyed that the music “always had a message”. It is possible that Participant Seven’s emotional connection to the music itself is the reason she is the only participant who currently performs before an audience. Comparing participants’ reasons for enjoying their class and whether they currently perform or attend live musical events may provide insight

into past experiences' effect on current and future decisions, allowing music educators to understand better how to encourage lifelong participation in a musical activity.

Future Research

This researcher recommends that more qualitative research be done regarding the multifaceted aspects of a music performance education class and its influence on students' experiences. Qualitative research that extends to a wider range of participants may reveal trends concerning more emotional and impressionable aspects of a classroom. This researcher believes that people's decisions are guided by experiences that shape values, beliefs, and expectations. Teachers, staff, and peers facilitate experiences at school where most school-age children spend their time, so they have a large effect on students that extends beyond basic core curriculum. Educators can use these multifaceted experiences to better educate students on other life skills such as leadership, compassion, and creativity.

APPENDIX A

INTERVIEW SCRIPT

Statement to potential participants: Hello, my name is Chelsea Silvermintz and I am conducting interviews for a study involving adults who participated in performance music classes, such as band, choir, orchestra, piano class, or guitar while attending middle school, junior high, or high school. Did you participate in a performance music class? Would you be willing to answer a short series of questions about your personal experience?

Opening oral statement to consenting participants: Thank you for your participation. No identifying information beyond gender and age will be required for participation in this study. Any statements recorded for this study will be quoted directly and anonymously.

1. Researcher states the coded letter/number combination (M = mall, R = retirement community, U = university campus, F = family attraction, zoo, etc.). Example: M1 would be the first participant at the mall.
2. Please state your gender and age.
3. Did you participate in any musical activities in middle or high school or outside of school during that time period?
 - a. What did you participate in?
 - b. How many years or semesters did you participate?
4. Describe your performance music classroom environment.
 - a. How many instructors did you have?
 - b. How many students were in your class?
 - c. What was the room set-up?
 - d. How often did your class meet during the week?
5. Did you enjoy the music that you performed? Why or why not?
6. Please talk about a memorable experience you had in this classroom or during a performance.
 - a. If applicable: Can you identify the music that was being performed at or around the time of the memory (title, composer, performing ensemble, etc.)?
7. Did you enjoy your overall experience within the previously described music class?
8. Have you attended any live musical performances in the past year? How many?
9. Do you perform vocal/instrumental music anywhere?
 - a. If yes, describe what you do.
 - b. If no, why not?

APPENDIX B

CATEGORIZATION CHART OF PARTICIPANTS' RESPONSES

Participant	Gender	Age	Performance Class	Years Participated	Memorable Experience	Enjoyed Music Performed	Enjoyed Overall Class Exp.	Live Perf. Attendance in last year	Currently Performs
1	M	57	Band	4	Positive (performance)	Yes	Yes	Yes 1-5 events	No
2	M	27	Band	7	Positive (performance)	Yes	Yes	Yes 1-5 events	No
3	M	45	Band	4	Negative (performance)	Yes	Yes	Yes 1 event	Yes
4	F	60	Choir	7	Positive (performance)	Yes	Yes	Yes 10+ events	No
5	F	26	Band	8	Negative (class/rehearsal)	Yes and No	Yes	No	No
6	F	28	Band	2	Negative (class/rehearsal)	Yes (hesitant)	Yes	No	No
7	F	71	Choir	Unknown	Positive (unspecified)	Yes	Yes	Yes 5+ events	Yes
8	F	44	Band	4	Negative (performance)	Yes	Yes	Yes 3 events	No
9	M	43	Guitar Class	1	None	Yes	Yes	No	Yes
10	F	55	Flute Class	2	Negative (class/rehearsal)	Doesn't remember	Yes	Yes 4-5 events	No

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