

Culminating Experience Action Research Projects,

Volume 18, Part 1, Spring 2016

Edited by

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March 2017

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The University of Tennessee at Chattanooga

Introduction

As a part of the teacher licensure program at the graduate level at The University of Tennessee at Chattanooga (UTC), the M.Ed. licensure candidate is required to complete an action research project during a 3-semester-hour course that coincides with the 9-semester-hour student teaching experience or with school employment. This course, Education 5900 Culminating Experience, requires the student to implement an action research plan designed through (a) the Education 5010 Methods of Educational Research course, (b) a required learning assessment required during student teaching, or (c) a newly-designed project. The course is, also, taken by elementary and secondary teachers who are, already, licensed to teach.

The action research projects, from spring semester 2016 (part 1), are presented below.

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March 14, 2017

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Differentiating Learning Styles in the Physical Education Classroom

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The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 16-053.

Introduction

The purpose of my research project was to determine which learning style works best for middle school students performing a semi-complex physical education skill. During my experiment, I introduced the three primary learning styles (visual, auditory, and kinesthetic) to three different 6th-grade, physical education classes. The students were taught a specific skill in the sport of basketball known as the “layup.” It was my hypothesis for this experiment that students would learn best in the following order: kinesthetically, visually, auditorily. A brief description of the three learning styles, and the manner in which I taught each, can be found below.

Review of Literature

Kinesthetic learning (ThoughtCo., n.d.b) takes place when students actually perform the physical activities or movements. In this case, students performed the basketball layup action on their own. I gave each student a series of practice trial runs, then I had them do a live trial run and evaluated them. I used a minimum of oral and visual instruction and feedback to ensure this learning was strictly kinesthetic.

Visual learning (ThoughtCo., n.d.c) takes place when information is taught through images or techniques watched by the learner. In this case, students watched me perform the layup skill. To be fair to students who were both right-handed and left-handed, I performed the technique both ways. Then students were evaluated on trying to best mimic my technique. In addition, I used no oral feedback nor gave any students practice time to ensure this learning was strictly visual.

Auditory learning (ThoughtCo., n.d.a) takes place by students learning through listening or hearing. In this case, I verbally instructed students for the four specific steps to the layup

technique and the key words or cues that accompanied each step. I taught students by saying the following sequence using the following order:

Step 1: Student dribbles with outside hand toward basket.

Step 2: Student uses opposite arm and leg opposition.

Step 3: Student lays the ball up in the square of the backboard.

Step 4: Student follows through continuing running pattern.

The ‘key words’ repeated during this method of instruction were: left/right dribble, opposite arm/leg, middle square, follow through.

I conducted this research to help me in my future profession as a physical education teacher (Cutter & Wistrom, 2012; Kelso, 2015). If I can pinpoint which learning styles work best with young students, I will be better prepared for my teaching and coaching career. I believe this experiment helped me begin to develop my own delivery style. It was also helpful that I was able to work with middle school students during this time because this is the age I plan to teach and coach in the future.

I believe my topic would be considered a national theme. It is also a theme that will always be “fluid.” Good teachers and coaches across the country are always searching for better ways to teach. This brief experiment provides us with some insight on the best way to enhance teaching by comparing and contrasting different learning styles. In addition, teaching and coaching jobs vary at all different levels through the country which makes it even more of a national theme.

I believe these types of experiments are particularly critical in my field of physical education. Physical education is much more subtle than academic classes. Sometimes, it involves coordinating the mind and the body; therefore, it can be taught in many different ways.

With physical education consisting of both physical and mental learning, it is important to strike a proper balance so that students learn it properly and with a solid foundation. Ultimately, physical education requires a lot of auditory, visual, and kinesthetic teaching which makes the experiment very suitable to my field.

Data Collection and Results

Data Collection

The methods of my research project were completed by evaluation or assessment. I watched each individual student perform the “layup” technique and recorded their results, accordingly. I recorded each student’s performance on a graded rubric (see Appendix A). The rubric contained four steps where students had the ability to receive a score of 1 to 3 on each. There were a total of 12 points, with each step scored as 1 (needs improvement), 2 (good), or 3 (excellent). Students could score between 4 and 12 points, depending on their performance.

The sample being used was three different middle school classes. I worked with 6th graders labeled in classes 6A, 6B, and 6C. Each class had approximately 15 students. Within the school, students were fairly comparable in gender, with 52% being male and 48% female. In addition, the school was predominantly populated by white students (55%) and African American students (31%). Additionally, 58% of the students came from economically-disadvantaged families. The only required participation time for each subject was during one, 45-minute physical education class.

During my experiment, data was collected from 45 students who were evenly dispersed among three separate sixth grade classes (6A, 6B, 6C). Each class was taught using a distinct method with the following breakdown: (a) 6A, auditorily; (b) 6B, visually; and (c) 6C, kinesthetically.

Each student was observed, with a score recorded individually, on their layup technique in the sport of basketball. I started each evaluation by instructing the student to stand on the free throw line before blowing the whistle to signal them to start their layup movement. Following the whistle, students were evaluated on four task components or step. These four steps were clearly labeled on a rubric which I completed while students were in action. Each of the four steps was worth between 1 and 3 points, as described above. Students could earn a maximum of 12 points within the rubric.

The four task components I recorded within my rubric were, as follows:

Step 1. Did the student dribble with their outside hand when moving toward the basket?

During this evaluation, I recorded the competency of the student's dribbling while approaching the basket. Proper fundamental basketball calls for the player to dribble with their outside hand when approaching the basket (otherwise, they will be shooting the layup from directly beneath the rim – and the rim will “block” the ball). This means that, if a student performed a layup on the right-hand side, they would dribble right-handed. The same principle holds for students performing the layup on the left-hand side (dribble left-handed). Dribbling with the outside hand (right or left) is crucial to clearing the underside of the basket, as well as minimizing the risk for the ball being stolen by defenders who are more likely to be “clogged” in the key.

Step 2. Did the student use opposite arm and leg plant during the layup?

During this evaluation, I recorded opposite arm and leg competency of the students. Proper fundamentals dictate that a student approaching the basket and dribbling with their (outside) right hand, plant their left foot and jump off it while shooting with their right hand. Left-handed (outside) dribblers would plant and jump off their right foot and shoot the layup

with their left hand. Using opposite arm and leg movement during the layup provides more explosion for the shooter. In addition, it makes it much more difficult for a defender to block the shot.

Step 3. Did the student place the ball in the center of the square on the backboard during the layup action?

During this evaluation, I recorded the accuracy of the ball bouncing off the center of the square on the backboard after it was released. Proper fundamentals dictate that the closer the ball is to the small square over the hoop, the more likelihood of scoring. (This statement is true for layups attempted head-on to the blackboard. Baseline layups require a different tactic.) Ricocheting the ball off the backboard is a technique that gets better with practice and experience.

Step 4. Did the student follow through by continuing a running pattern following the layup?

During this evaluation, I recorded the competency of the follow-up. Proper, fundamental basketball dictates that a shooter continues to move their feet in a forward direction past the basketball hoop. This type of follow through reassures that the student released the ball at the proper time and distance from the hoop; and it ultimately increases the chances of a student earning a basket. Additionally, shooters who “follow-up” increase their chances of being fouled by their opponent and scoring additional points at the foul line.

Results

Regarding the total number of points earned by students in classes 6A, 6B, and 6C in relation to their designated learning style, the results supported the hypotheses as the kinesthetic learning group earned the highest score. The visual learning group was second and the auditory

learning group was third, with respect to points scored. A summary of points earned is presented in Figure 1.

Group	6A	6B	6C
Step	Auditory	Visual	Kinesthetic
1	41	38	37
2	32	39	35
3	33	37	40
4	34	35	40
Total	140	149	152
Mean	9.33	9.93	10.13
Median	9	10	10
Mode	9	11	10, 11
Minimum	6	8	8
Maximum	12	12	12

Figure 1. A summary of the data is presented.

The kinesthetic learning group earned the highest score, with a total of 152 points. I interpreted this data to mean that, all else being equal, students learned the most effectively with this style. The mean of the 15 students in this class (6C) was 10.13 points. The median was 10 points. The data was bimodal, with 10 and 11 points. The highest score in this class was 12 points (one student). The lowest score in the class was 8 points (two students).

The visual learning group earned the middle score, with a total score of 149 points. This meant that, overall, students learned the second most effectively, with this style. The mean of the 15 students in this class (6B) was 9.93 points. The median was 10 points. The mode was 11 points. The highest score in this class was 12 points (two students). The lowest score in this class was 8 points (three students).

The auditory learning group earned the lowest score, with a total score of 140 points. This meant that, overall, students learned the least effectively, with this style. The mean of the 15 students in this class (6A) was 9.33 points. The median score was 9 points. The mode was 9

points. The highest score in this class was 12 points (one student). The lowest score in the class was 6 points (two students).

Based on the results and my direct observations, I believe the kinesthetic style provided the greatest learning as a physical skill was being evaluated. Kinesthetic learning takes place through the performance of physical activity which aligned it very well to the evaluation procedure. I believe the visual learning group was close to this, due to the fact that there were many steps and details within each step. Because the movement required many small details, seeing things was important for learners. I believe the auditory learning group earned the lowest score due to the fact that it was too much information without other types of input. Some students had success with this type of learning, but many struggled due to too much information presented to comprehend.

I evaluated all three classes' scores on steps 1 to 4, individually. This was the total number of points earned by students in classes 6A, 6B, and 6C on each of the four steps, independently, in relation to their designated learning style.

For step 1, "student dribbles with outside hand towards basket," the auditory learning group earned the highest score, with a total of 41 points. The visual learning group earned the second highest score, with a total of 38 points. The kinesthetic learning group earned the lowest score, with a total of 37 points. Since the first thing students heard during auditory learning was the steps to perform the action, I believe students were able to keep this in mind, very clearly, causing the students to have a high success rate during the initial portion of the layup technique.

For step 2, "student uses opposite arm and leg opposition," the visual learning group earned the highest score, with a total of 39 points. The kinesthetic learning group earned the second highest score, with a total of 35 points. The auditory learning group earned the lowest

score, with a total of 32 points. I believe the visual learning group earned the highest score due to the complexity of the step. Using opposite arm and leg action, while on the move, can be a difficult technique to comprehend. It requires mental focus, which makes it is very important to view it before trying to accomplish it. This was the most complex step of the four.

For step 3, “student lays the ball up in the square of the backboard,” the kinesthetic learning group earned the highest score, with a total of 40 points. The visual learning group earned the second highest score, with a total of 37 points. The auditory learning group earned the lowest score, with a total of 33 points. I believe the kinesthetic learning group earned the highest score due to it being a hand-eye coordination movement. Placing the ball at the center of the square, while on the run, requires a lot of “feel” to it. If you lay the ball up too early or too late, it is very unlikely to hit the square on the backboard and result in a basket. Getting the proper timing down of when to shoot the ball requires a lot of practice. This is why students practicing the movement during kinesthetic learning assisted students during this step.

For step 4, “student follows through continuing running pattern,” the kinesthetic learning group earned the highest score, with a total of 40 points. The visual learning group earned the second highest score, with a total of 35 points. The auditory learning group earned the lowest score, with a total of 34 points. I believe the kinesthetic learning group earned the highest score because step 4 was a skill that transitioned directly from step 3. If a student had success with step 3, then they were very likely to have success with step 4. This is because, if a student successfully placed the ball at the center of the backboard on the move (step 3), then they were more likely to have a good follow through run (step 4) because they released the ball at the proper time, making the movement smooth and efficient.

Conclusions and Recommendations

Conclusions

Based on the results of this case study, a few generalizations can be made. First, during this trial, kinesthetic learning was the most effective learning style for middle school students in physical education class. Kinesthetic learning earned the highest score in steps 3 and 4, and had the overall highest score in steps 1 to 4 combined.

Another generalization that can be made is that all three learning styles have the most effective results in some areas. The results on the case study showed that auditory learning was the most effective approach in step 1. Also, that visual learning was the most effective approach in step 2. Finally, kinesthetic learning was the most effective approach in steps 3 and 4. This shows that all three learning styles have their specific strengths and weaknesses. As a future teacher, it will be important for me to provide all three learning styles, at the proper time, to fully enhance student learning.

Recommendations

I would make a few recommendations for teacher professional development on this topic. There are methods that could be used that would enhance the student's learning experience and improve the teacher's methods. Technology could play a vital role in exploring this topic. Using video cameras to record students' performance on their layup technique would allow students and teachers to "break down" the fundamental movement on a finer level. These videos could be evaluated to gauge student performance on their technique. Students would get a better idea of what went well and how they could improve for future performance. Teachers could also learn by breaking down the fundamental movements into small increments.

Overall, this case study was a good experience for me. Although it was a required project, I gained some valuable insight that will help me in my future teaching and coaching profession. It is experiences and lessons like these that will ultimately help me become the best that I can be.

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**Appendix A
Rubric**

Layup Rubric

Task components	Excellent (3)	Good (2)	Need improvement (1)
Student dribbles with outside hand towards basket			
Student uses opposite arm & leg opposition			
Student lays the ball up in the square of the backboard			
Student follows through continuing running pattern			

**Direct Instruction Versus Inquiry-based Learning: Impact on Knowledge and
Understanding in High School Science Students**

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*The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149)
has approved this research project # 16-047.*

Introduction to the Problem

The debate about the effectiveness of direct instruction (DI) compared to inquiry-based learning (IBL) has been raging since the 1950's when the constructivist ideas of Jean Piaget and Lev Vygotsky and the behaviorist philosophies of B. F. Skinner were at the forefront of the pedagogical world. While the debate is still ongoing, the educational community and some research point to the need for increased inquiry-based learning within the classroom to promote a more student-centered atmosphere where the teacher is the facilitator and the student becomes the main contributor in the learning process. Given the amount of research and impetus of educational reformers to incorporate inquiry-based instruction in the classroom, direct instruction has become the less popular of the two instructional strategies in the pedagogical domain. It should be noted that a mixed methods approach to teaching, where direct instruction and inquiry-based learning are used in concert with one another, has become a more prevalent teaching method since the enactment of the No Child Left Behind Act of 2001 and the implementation of more widespread state testing.

Despite the mainstreaming of inquiry-based learning, studies supporting the continued use of direct instruction, where the teacher plays a more significant role as the provider of information or, at least, a mixture of the two instructional philosophies, has become more prevalent as student mastery and overall understanding in inquiry-based classrooms has diminished (Klahr & Nigram, 2004). Considering the lack of consensus between the research and the pedagogical community, regarding which teaching method will yield the best results in a classroom setting, reliable studies are needed in order to show which method, or methods, is the most effective and what method of teaching will produce better understanding and mastery of information. This study aims to provide some insight as to which instructional teaching method,

direct or inquiry-based, will elicit the best results as they pertain to knowledge and understanding in a science classroom.

Review of Literature

Inquiry-based Learning. The support for inquiry-based learning in the classroom finds research support in studies by Botcher & Meisert (2011), Furtak, Siedel, Iverson, and Briggs (2012), Minner, Levy, and Century (2009), and Drake and Long (2009). The focus of each study varied but each settled on the idea that inquiry-based learning did yield some significant increase in knowledge, understanding, decision making, or critical thinking. Decision making through deduction and reflecting plays an important role in the science classroom. The study by Botcher & Meisert (2011) was unique in that it focused on socioscientific decision making and found that students who were instructed indirectly deduced more properly as compared to students who were directly instructed. The studies by Furtak et al., and Drake and Long, showed significant improvement and growth in students that were taught using indirect instruction and inquiry-based methods. The study by Drake and Long mentioned a specific increase in content knowledge and test scores by students who were taught with inquiry-based instruction as compared to students who were taught using a more direct approach. It is important to note that the study by Drake and Long was conducted in elementary classrooms as opposed to secondary classrooms.

The meta-analysis by Minner et al. (2009) showed a similar positive impact of, specifically, inquiry-based instruction methods. Fifty-one percent of the studies analyzed showed a significant positive impact on learning and retention in science classrooms compared to only a 2% negative impact. It should be noted that 33% of studies analyzed showed a mixed impact of inquiry learning and 14% showed no impact.

Inquiry-based learning has come under some scrutiny, especially in the study by Capps and Crawford (2013), who found that, while inquiry-learning is at the forefront of educational reform, very few science teachers were actually teaching science as inquiry in the classroom. Facts such as these create a challenge for educational reformers, teachers, and school administrators, alike, in that there may be a lack of understanding about what inquiry-based instruction and/or learning actually is.

Direct instruction. The benefits of direct instruction are not without research support. Studies by Kirschner, Sweller, and Clark (2006) and Klahr and Nigam (2004) provide a research basis for the use of direct instruction over inquiry-based instruction. The meta-analysis by Kirschner et al. shows support of direct instruction by pointing to prior studies that discount inquiry-based, indirect instruction and show the positive impact of direct instruction on learning. This study is in direct conflict with the study by Minner et al. (2009) in that both are meta-analyses about nearly the same topic, yet yield completely different results.

The study by Klahr and Nigam (2004) also shows a significantly increased impact of direct instruction compared to inquiry-based instruction in the science classroom. The authors were certain enough about the data to use the terms “clearly superior” when comparing direct instruction with inquiry-based instruction. It should also be noted that the study by Klahr & Nigam was conducted with elementary students, not secondary students.

Mixed instruction. There is research which supports a common ground between the two instructional methods. Studies by Ku, Hau, and Lai (2014) and Dean and Kuhn (2006) show support for a mixed method of instruction that combines inquiry-based instruction and direct instruction. The study by Ku et al. emphasizes the importance of avoiding an “either/or” mindset where a teacher might try to select one method or the other, as better or worse than the other. Ku

et al. highlight the strengths of both instructional methods and the study shows that both methods can be implemented in a way that might use the strengths of both methods to accentuate the learning process, especially with regard to critical thinking.

The study by Dean and Kuhn (2006), while less explicit, explains how direct instruction and inquiry-based, discovery instruction are only effective when maintenance or practice occurs over a period of time. Neither method is capable of standing on its own without some type of upkeep which should incorporate other methods. It should be noted that this study was conducted with elementary students, not secondary students.

The article by Cobern, Schuster, Adams, Applegate, Skjold, Undreiu, Loving, and Gobert (2010) yields support for both methods, while providing a source of methods and measures to base future studies on. Cobern et al. support the conclusion that both methods, direct and inquiry instruction, led to the comparable results in science understanding. The study found that one method did not show significant differences in gains in eighth-grade science students. The study by Cobern et al. also provided good scaffolding upon which to base any future study of this topic because the researchers employed pre- and post-tests, with 2 weeks of instruction. The researchers used a *t* test to compare pre- and post-test scores of the participants.

With research supporting both types of instruction and a combination of both types, the need for a study that takes all of the research into account and fills in the gaps where each of the other studies left off, is necessary. Cohesion is essential in order to create a more effective science classroom where teachers, school administration, and educational reformers understand which method or mixture of methods works best in the secondary science classroom.

Data Collection and Results

Data Collection

Subjects. Thirty-one participants were randomly assigned to the investigator's two Biology courses at the beginning of the school year. The investigator had no part in the selection process of the students being placed into the course. The investigator employed convenience sampling by using students from the two Biology courses as the experimental groups. Participants were high school students ranging in age from 16 to 17 years old and were enrolled in the Biology I course for credit toward graduation. Class A consisted of 14 students, while Class B consisted of 17 students. Involvement in the course was mandatory as the students were seeking credit toward graduation. However, participation in the study was voluntary and students gave their assent as participants.

Instruments. The instruments were derived from the Tennessee State End of Course Biology I practice test (2009). The investigator chose 11 questions concerning each topic and compiled them into two, stand-alone assessment documents for each unit. Questions were not altered or change for the study in order to maintain the integrity of the questions. Questions that required the use of a figure, table, or picture were also used.

Methodology. In order to answer the question of which teaching method yields the most understanding in a science classroom, the investigator used quantitative research methods to complete the case study. The study took place over the course of 4 weeks (2 weeks per unit). The first unit covered the topic of evolution. Class A began as the DI group and received direct instruction from the teacher e.g., lecture, note taking, etc. Class B began as the IBL group and received inquiry-based instruction e.g., problem solving, research projects, etc. Both groups were administered the same assessment over concepts in unit one. The method of instruction

was then switched for each group during the second unit about ecology. For unit two, Class A became the IBL group and Class B became the DI group. Both received their respective instruction methods and were administered the unit two assessment at the conclusion of the unit. A *t* test was run on the resulting assessment data using Excel.

Results

For unit one, covering the topic of evolution, the mean post-learning assessment score for Class A (DI) was 86.64%, while the mean post-learning assessment score for Class B (IBL) was 86.35%. This is a 0.29% difference between the DI class and the IBL class with the DI class having the slightly higher mean assessment score. The result was not significant, with $p=.8877$.

For unit two, covering the topic of ecology, the mean post-learning assessment score for Class A (IBL) was 81.14%, while the mean post-learning assessment score for Class B (DI) was 84.29%. This is a 3.15% difference between the DI class and the IBL class with the DI class, again, having the higher mean assessment score. The result was not significant, with $p=.3950$.

Conclusions and Recommendations

Conclusions

According to the *t* tests, the differences between the mean assessment scores for each unit were not significant, and could not show whether direct instruction or inquiry-based learning was more effective in building knowledge and understanding in a science classroom. The classes that received the direct instruction scored higher in both assessments, however, the *t* tests showed that the variance between the scores was not significant enough to show that direct instruction was more effective.

There were limitations in this study that could, possibly, lead to more conclusive results, given particular changes. Time was a limiting factor, as the study was conducted over a 4-week

period. A study covering an entire school year or a long-range study that spanned multiple years would provide more reliable results. Also, the investigator only had two classes with which to test the research question. Had more classes been available, the instructor would have included a mixed method (DI and IBL) into the study instead of limiting the research to the two teaching methods that were mentioned. It is the opinion of the investigator that incorporating both methods, together, would lead to more concept mastery and understanding than utilizing a sole teaching method, especially in a science classroom where concept knowledge and inquiry are central to thorough mastery of each concept or topic.

Recommendations

There is significant room for more study on this topic, given the results of this study and many more like it. The lack of consensus among this and similar studies creates an avenue for educators and school officials to take a closer look into which pedagogical teaching methods are more effective. One place to start this process would be in teacher professional development. Teachers have the ability to collaborate about a topic every month. This would be an effective place to allow teachers to study the science and research behind particular teaching methods, as well as reflect on methods they have used in the past that have been effective and/or ineffective. While college education programs are preparing young teachers to enter the classroom, incorporating professional development that allows new teachers to learn, reflect, and research could provide needed insight into which teaching methods are most effective in the different subject areas.

There are also opportunities for further research by utilizing grant money to continue research studies regarding teaching methods and strategies. The National Education Association (NEA) Foundation offers learning and leadership grants that allow individuals or groups to

perform action studies or study groups. The NEA Foundation grant offers \$2,000 for individuals or \$5,000 to groups engaging in collegial study. Grants like these would allow teachers from different states and educational backgrounds to collaborate to study effective teaching methods and strategies.

It is also important to consider the role of technology on the different teaching methods. Technology has become significantly prevalent in schools of every level. High school students are exposed to technology on a daily basis, and teachers should consider and utilize technology in their classroom. However, it is important to employ technology effectively and efficiently to receive the most benefit from it. The influx of technology into the classroom has streamlined the direct instruction teaching method by introducing programs such as PowerPoint and Prezi. Inquiry-based learning methods have also benefitted from new technologies with the advent of Web quests, virtual labs, and the vast information capabilities of the Internet. Teachers must consider the most effective way to use technology to achieve higher learning and increase understanding. A mixed technological approach, where the instructor utilizes technologies that apply direct instruction and inquiry-based learning methods, would be an effective way for instructors to provide a comprehensive curriculum infused with technology.

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**The Effect of Supplemental, Explicit Phoneme Awareness Instruction on the Reading
Achievement of Kindergarten Emerging Readers and Nonreaders**

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The University of Tennessee at Chattanooga

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has approved this research project # 16-039.*

Introduction to the Problem

Phonemic awareness is a critical factor for learning to read (Ehri, Nunes, Willows, Schuster, Yaghoub-Zadeh, & Shanahan, 2001; Kamhi & Catts, 2011; National Reading Panel, 2000; Share, Jorm, Maclean, & Matthews, 1984; Stahl & Murray, 1994). Phonemic awareness is the understanding that the spoken word can be divided into individual beginning, middle, and ending sounds and that individual sounds can be combined to form words (Kamhi & Catts, 2011). These individual speech sounds are called phonemes. Phonemic awareness is a component of phonological awareness. Phonological awareness is the ability to analyze the sound structure of spoken language and encompasses awareness of rhymes, syllables, and onset and rimes, as well as phonemes (Bernthal, Bankson, & Flipsen, 2012). Phonemic awareness skills include identifying and segmenting initial and final sounds, segmenting all of the phonemes in words, blending phonemes into words, and manipulating phonemes in words.

Phoneme awareness may be incorporated into the kindergarten reading curriculum, along with other broad-based phonological awareness instruction. However, some children struggle to develop these skills and need supplemental, explicit instruction in order to develop the ability to accurately decode printed words. Although children with lower levels of phoneme awareness may be able to compensate in the early grades, by using semantic and syntactic cues and visual memory, they may start to struggle with reading in the later grades, due to their deficits in efficiently decoding words (Gillon & Dodd, 2005). Thus, supplemental explicit instruction in phoneme awareness is an important tool for preventing and remediating reading difficulties.

The purpose of this study is to present evidence that supplemental, explicit phonemic awareness instruction will accelerate the development of reading skills in kindergartners identified as nonreaders and emerging readers as compared to kindergartners at the same reading

levels who do not receive supplemental, explicit instruction. A couple of studies, evaluating the effects of providing phonemic awareness instruction to typically-developing kindergartners, focused solely on phonemic awareness and not on other aspects of phonological awareness (Ball & Blachman, 1991; Torgesen, Morgan, & Davis, 1992). Other studies have evaluated the effects of phonemic awareness instruction on the reading outcomes of kindergartners identified as at-risk for reading difficulties and kindergartners with emotional and behavioral disorders (Ukrainetz, Ross, & Harm, 2009; Wehby, Lane, & Falk, 2005). The present study will attempt to replicate the findings from the studies with typically-developing participants, while employing a lower intensity of intervention.

Review of the Literature

The National Reading Panel was directed by the U.S. Congress to analyze the efficacy of various approaches to reading instruction (Ehri et al., 2001). Ehri et al. comprised the subgroup of the National Reading Panel that conducted a meta-analysis on phonemic awareness. Based on 52 selected experimental studies, they concluded that phonemic awareness instruction was found to have a significant impact on children's reading skills. They found that instruction that focused on blending and segmenting phonemes had more of an impact than instruction that taught multiple skills. They also found that using letters to manipulate phonemes during instructional activities helped children make the connection between graphemes and phonemes, and, therefore, was more effective in facilitating the transfer of phonemic awareness skills to reading. Instruction in small groups was found to be more effective than whole-class instruction or tutoring. Explicit instruction was found to be necessary to acquire phonemic awareness, for the children in the control groups, as they did not acquire as much phonemic awareness as the children who received explicit phonemic awareness instruction.

A few studies have examined the effects of instruction that focuses solely on phoneme awareness on the reading skills of typically-developing kindergarten students in the United States. In one such study, Ball and Blachman (1991) found that teaching kindergartners the phonemic awareness skill of segmenting words into phonemes was effective. The researchers selected 89 kindergartners who scored no more than 1.5 standard deviations below the mean on the Peabody Picture Vocabulary Test-Revised (PPVT-R), who were identified as nonreaders by their teachers, and who obtained raw scores of 3 or less on the Woodcock Word Identification Subtest of the Woodcock Reading Mastery Test. The participants were randomly assigned one of three groups. Children in the phoneme awareness training group were taught how to segment words into phonemes, as well as the names and sounds of letters. Children in the language activities group listened to stories and were taught semantic categorization, in addition to instruction on the names and sounds of letters. Participants in both conditions were taught in groups of five for four, 20-minute sessions per week for 7 weeks. The participants in the control group did not receive any intervention.

The children in the phoneme awareness training groups performed significantly better on phoneme segmentation posttest tasks than those children in the language activities groups or the control group. Children in the phoneme awareness training group and the language activities group scored significantly higher than the children in the control group on the letter-sound posttest, which indicates that the differences in segmentation skills between the children in the two experimental groups were not due to differences in letter-sound knowledge. The children in the phoneme awareness training group also performed significantly better on the Woodcock Word Identification Subtest after the intervention than did the children in the language activities group and control group. This difference in performance indicates that teaching letter-sound and

letter-name correspondences without phoneme awareness training is not enough to increase word-level reading skills.

Torgesen, Morgan, and Davis (1992) also conducted a study to determine the effects of phonemic awareness instruction on kindergartners' reading skills. Fifty-one kindergartners, whose scores on the Screening Test of Phonological Awareness were between the 15th and 50th percentile, were selected. These children were randomly assigned to experimental groups in which both phoneme segmentation and blending were taught, or only phoneme blending was taught. The children assigned to control groups listened to, and discussed, stories. The children in the phoneme segmentation and blending group outperformed the children in the blending-only group and the control group on a word-reading task. This task involved the children being taught the letter sounds that corresponded to six novel, letter-like symbols and then being asked to read six words with the syllable shape of consonant-vowel-consonant that were each composed of three letter-like symbols. The children in the phoneme segmentation and blending group were able to learn to read these new words more quickly than the children in the other two groups. These results indicate that it is important to teach both phoneme segmentation and blending in order to have the most effect on reading achievement.

Wehby, Lane, and Falk (2005) studied the effects on phoneme awareness instruction on the reading skills of four kindergartners who were identified as having emotional and behavioral disorders. During the first phase, the baseline phase, these students participated in a class-wide literacy program in a general education classroom. This program involved daily, 15-minute, whole-group literacy lessons and 15-minute, small-group lessons in the areas of oral language, reading comprehension, phonics, and grammar. During the second phase, the intervention phase, the students received phoneme awareness intervention that involved teaching the students how to

segment and blend phonemes, as well as how to transfer these skills to reading and spelling. The intervention was provided in 20-minute lessons, three times per week, for 9 weeks. The group of kindergartners made little or no progress during the baseline phase of the study, but, after the intervention phase, each student demonstrated moderate improvements in reading achievement.

Ukrainetz, Ross, and Harm (2009) evaluated the effects of providing phoneme awareness intervention, to kindergartners identified as being at risk for reading difficulties, one time per week versus three times per week. The results indicated that providing intervention to groups of three children that focused solely on phonemic awareness was just as effective when provided in one, 30-minute session per week, for 8 weeks, when compared to the same intervention in three, 30-minute sessions per week. The children who received instruction three times per week did not perform better on tests of reading skills than those children who received instruction only once per week.

Data Collection and Results

Population

Data was collected from three kindergartners attending an independent elementary school in Chattanooga, TN. One kindergartner identified as a nonreader and two kindergartners identified as emerging readers were selected. These participants were identified as nonreaders or emerging readers based on the results from the most recent Children's Progress Academic Assessment (CPAA) (Northwest Evaluation Association, n.d.) and input from the school administrators. Each student's progress was compared to that of a same-level, nonparticipating kindergartner.

Procedure

As a part of the independent school curriculum, all kindergartners take the CPAA quarterly. The CPAA is a computerized formative assessment of early literacy and mathematics concepts and served as both the pre-test and the post-test of literacy achievement. Nonreaders took the preschool version of the CPAA test. Participant selection occurred after the second quarter assessment.

The participants were provided with explicit phoneme awareness instruction for 30 minutes once per week, for 6 weeks. They received this instruction in the school resource room. The children were initially taught how to blend phonemes into words and segment words into phonemes without letters. As the children became more proficient, they learned to use letters to represent the phonemes that they were blending or segmenting in order to facilitate transfer of these skills to reading. All other kindergartners continued to receive literacy instruction in their classrooms during this time. After the participants receive 6 weeks of instruction, another CPAA assessment was administered to all kindergartners. The participants' performance on the early literacy concepts section was compared to their performance on the previous administration of the assessment. Redacted data representing the scores of other kindergartners (randomly-selected) identified as non-readers and emerging-readers on the second-quarter assessment and the third-quarter assessment was also obtained. The participants' level of improvement was measured and compared to that of these other kindergartners who did not receive intervention.

Results

The participating nonreader's scores on the phonics/writing, phonemic awareness, and reading sections of the CPAA increased more than those of the nonreader who did not participate in the study. The participating nonreader's scores increased by 17, 15, and 18 on the

phonics/writing, phonemic awareness, and reading sections, respectively. The scores of the nonreader in the comparison group did not change for the phonics/writing and reading sections and decreased by 6 for the phonemic awareness section.

One of the participating emerging readers had score increases of 24, 33, and 21 for the phonics/writing, phonemic awareness, and reading sections, respectively. This student had the greatest score increases of all the emerging readers from whom data was collected. The phonemic awareness score of the other participating emerging reader increased by 21, while the scores of the two nonparticipating emerging readers increased by only 18 and 15 on this section. However, this participating nonreader's scores increased by 15 on the phonics/writing section and decreased by 8 on the reading section, while one nonparticipating emerging reader's scores increased by 20 on the phonics/writing section and by 8 on the reading section. The other nonparticipating emerging reader's score did not change on the phonics/writing and increased by 8 on the reading.

Conclusions and Recommendations

Based on the results of the case study, a generalization that can be made is that kindergarten nonreaders who received supplemental, explicit phonemic awareness instruction experienced greater improvement in their phonics, writing, phonemic awareness, and reading skills than did kindergarten nonreaders who did not receive this instruction. A generalization can also be made that kindergarten emerging readers who received supplemental, explicit phonemic awareness instruction experience greater improvement in their phonemic awareness skills than those kindergarten emerging readers who did not receive this instruction. However, a generalization cannot be made regarding the effect of supplemental, explicit phonemic awareness instruction on the phonics and reading skills of emerging readers, as, in the present study, one

child experienced greater improvement in these areas than kindergartners at the same reading level who did not receive this instruction, but the other child did not experience greater improvement.

Recommendations

The consensus of the International Reading Association is that phonemic awareness development helps children to have success in learning to read (International Reading Association, 1998). I recommend providing teacher professional development in English phonology and its relationship to English orthography. There is grant money available to support more research in this area. The International Literacy Association's Elva Knight Research Grant provides funding for research focused on reading and literacy.

Software programs, such as HearBuilder (Super Duper Publications, 2017), can help to build phonemic awareness. The HearBuilder Phonological Awareness program teaches phonemic awareness skills, including phoneme blending and phoneme segmentation, through computer games. This program provides a motivating way for children to develop these skills at their own pace. This program also allows educators to tailor the program to each student's individual needs, adjust the difficulty level of the activities, and monitor each student's progress.

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**A Study of the Number of Sports and Hours Spent Participating
on the Physical Fitness of an Athlete**

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Educ. 5900, Spring 2016

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*The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149)
has approved this research project # 16-054.*

Introduction to the Problem

As a biology major and current football coach, I have great interest in the human body as to how it functions under stress, responds to certain stimuli, and recovers from injury. One of the most controversial issues in both youth and high school sports is whether participating in one sport or multiple sports is more beneficial for the physical development of athletes. Participating in only one sport, known as specializing, can definitely benefit an athlete by allowing them to train for that sport year-round. However, it has been said that playing one sport can also increase the risk of specific injuries due to lack of diversification in muscle development and skill sets. Therefore, what is the best way to physically develop an athlete to prevent injury and achieve the highest possible skills?

The purpose of this research is to determine if participating in multiple sports increases an athlete's physical fitness, thereby reducing injury and increasing athletic ability. Research questions include:

1. Does participating in multiple sports increase athletic ability?
2. How does the number of sports played affect the amount of time spent, involved in sports?
3. How does the amount of time spent playing sports affect the amount of injuries sustained by an athlete?

Review of Literature

Studies have shown that there are two paths toward elite performance in sports: early diversification and early specialization (Fransen, Pion, Vandendriessche, Vandorpe, Vaeyens, Lenoir, & Philippaerts, 2012). Sport specialization refers to when an athlete trains and

participates in only one sport, often year-round (Ferguson & Stern, 2014). Early specialization has been, and still is, a heavily-debated topic in the sports world.

Some research has shown that early specialization benefits athletes, such as that done by Ericsson, Krampe, and Teschmer (1993), who said specializing at an early age greatly increases one's chance of becoming an expert in that specific domain, due to hours upon hours of "deliberate practice." Baker (2003) used previous findings from Ericsson et al., Simon and Chase (1973, cited in Baker), and Singer and Janelle (1999, cited in Baker) to theorize that expertise is not only a product of accumulated training time, but is, also, dependent on biological and cognitive development.

In contrast, other research has shown that specializing in a single sport can negatively affect a youth's psychosocial development (Russell, 2013). According to Russell, "So-called 'specializers' may be at greater risk for physical, psychological, and developmental issues including burnout, overuse injuries, and social isolation" (2014, p. 288). Ericsson et al. (1993) reference that specializing requires specific and time-consuming training, known as deliberate practice, which leaves little to no room for deliberate play or play for fun.

When an athlete specializes in one sport, they are constantly using the same muscle groups. Research has shown that this generates a risk in overuse injury to muscle groups that are consistently being stressed in that sport. Vleck, Bentley, Millet, and Cochrane (2010) showed that specializing in a particular area, such as long-distance triathlon events, can increase the chance of overuse injury, due to repeated stress on specific muscle groups. Hall, Barber Foss, Hewett, and Myer (2015) compared patellofemoral pain in girls that specialize (basketball, soccer, or volleyball) to girls that play more than one sport. They revealed that, by specializing,

there was a four-fold greater chance of being diagnosed with Sinding Larsen Johanson or Osgood Schlatter disease, as compared to those that diversify.

Both injury and burnout can detrimentally affect an athlete's physical development and performance. Single-sport specialization can increase the chance of an athlete mastering the proper skills for that sport, with an increased risk of injury to specific body parts and increased chance of burnout. Playing multiple sports can help develop a diverse set of physical and social skills that can benefit an athlete, in the long run, with the chance that the athlete will not master any specific sport in the time a specialist would.

Concerns from previous studies include not accounting for time spent participating in sports (Hall et al., 2015). Other problems found in previous studies include small sample sizes, lack of diversity in the samples, and limited sports that were studied. Bodey, Judge, and Hoover (2013) stated, "These statistics should be interpreted with caution. Incidence rates must be interpreted in relation to total training volume, specific training methods, and maturation level of the athletes" (p. 5).

Data Collection and Results

Data Collection

Subjects. The subjects for this study were high school student-athletes from a suburban high school in southeast Tennessee. The student-athletes were from grades 9 through 12. All of the student-athletes participated on the school football team, while some also participated on the baseball, basketball, soccer, tennis, track and field, and wrestling teams.

Instrument. An 18-item survey was given to the student-athletes. The survey consisted of response questions regarding what sports participants played, how many hours they

participated in those particular sports, and what kind of pain and injuries (if any) they sustained from participating in sports. The survey is presented in Appendix A.

Procedure. The survey was given to 65 male student-athletes on the football team. The purpose of the survey and this research project were explained to the students before they were given the survey to complete. Of the 65 surveys that were given to student-athletes, 40 surveys were returned.

Results

Single versus multi-sports. Of the 40 participants, 45% participated in two or more, school-related sports, while 55% participated in only one sport. All respondents participated in the sport of football. Of the multi-sport athletes, 78% participated in two sports, 17% participated in three sports, and 5% participated in four sports.

Playing time. Of the 22, single-sport athletes, only one (5%) were “starters,” this season. A larger group of the single-sport athletes (27%) did not start but played on a regular basis. However, the largest group, at 45%, only saw playing time occasionally. The remaining 23% rarely saw playing time. The 18, multi-sport athletes started in 1.3 sports, on average. A few of the multi-sport athletes were starters in three or four sports. Only 45% of the multi-sport athletes did not start during this season, and participation included regular playing time, occasional playing time, and rare playing time combined.

Hours spent participating. According to the survey, multi-sport athletes spent an average of 27.6 hours per week for practicing, playing, and training for their respective sports. Single-sport athletes recorded an average of 18.9 hours per week for practicing, playing, or training for their particular sport. Multi-sport athletes spent almost 80% of their time practicing

or playing their sports, and only 20% of their total time training. Single-sport athletes spent 58% of their time practicing or playing while spending 42% of their total time training. See Figure 1.

<i>Participation Time</i>	<i>Total Hours</i>	<i>Practice/Games Hours</i>	<i>Training Hours (workouts/running)</i>
Multi-sport (18)	497	397	100
Single-sport (22)	415	242	173

Figure 1. Student-athlete responses on the number of hours spent per week participating. The total number of respondents was 40.

Injuries. Multi-sport athletes recorded a total of 131 injuries while single-sport athletes recorded 83 injuries. Of the 131 injuries recorded by multi-sport athletes, 80% of the injuries were considered minor while 20% of the injuries were considered major. Of the 83 injuries recorded by single-sport athletes, 86% were considered minor while 14% were considered major. Of all the multi-sport athletes, 61% suffered from an ankle injury, 39% suffered from a knee injury, 44% suffered from a shoulder injury, and 22% suffered from a concussion. Of all the single-sport athletes, 27% suffered from an ankle injury, 23% suffered from a knee injury, 5% suffered from a shoulder injury, and 23% suffered from a concussion. See Figure 2.

<i>Type of Injury</i>	<i>Multi-Sport Athletes (18)</i>	<i>Single-Sport Athletes (22)</i>
Ankle Injuries	11	6
Knee Injuries	7	5
Shoulder Injuries	8	1
Concussions	4	5
Ankle Pain	7	3
Knee Pain	8	9
Shoulder Pain	7	4
Surgery Due to Injury	2	3

Figure 2. Student-athlete responses on the type of injuries sustained are presented. The total number of respondents was 40.

Conclusions and Recommendations

Conclusions

The purpose behind this research was to determine if participating in multiple sports helps decrease injury and increase athletic ability or skill sets. The reviewed literature seems to argue that specializing in one sport will increase the chance of an athlete mastering that particular sport but will also increase the chance of overuse injury. However, the data from the survey showed that a multi-sport athlete is almost twice as likely to get injured playing a sport when compared to a single-sport athlete. The data also showed that participating in more than one sport greatly increases the chance of developing the skill set to be a starter.

One possible reason for the higher number of injuries in multi-sport athletes is the lack of training time. Due to going from one sport to another, these athletes spend less time in the weight room and conditioning for their sports. This means their bodies are less likely to withstand as much stress as those who do lift weights and participate in cardio-based running on a more consistent basis. This lack of training is also what could cause the multi-sport athletes to feel ankle and shoulder pain 2.5 times more than specializers.

Although multi-sport athletes tend to suffer more injuries, they seem to receive a lot more playing time due to skills learned in multiple sports. Out of the 18 multi-sport athletes, 100% of them commented on how participating in multiple sports helps keep them in shape, helps them develop multiple skills, and helps increase their athletic ability. Although the multi-sport athletes do not train as much as single-sport athletes in the off-season, they are participating in many more hours of practice and games which gives them much more experience in a shorter amount of time.

The data shows that participating in multiple sports can help develop an athlete by providing lots of experience competing against others. If multi-sport athletes can find a way to work in more training sessions during their season or into their practices, it could help reduce the number of injuries. Specializing in one sport does allow the athlete to focus on that particular sport and master the skills needed to excel, however, specializing can be lacking in the most important area of sports: the experience of competition.

Recommendations

Recommendations include changes for further study, as well as the study of how the athlete approaches their sport. The study needs a larger sample to better analyze how playing time correlates to injury. This sample could include males and females, and contact and noncontact sports, as well as verification from coaches and trainers on playing time and injuries sustained. Multi-sport athletes and single-sport athletes can both find ways to increase athletic ability and decrease injuries by learning from each other. A good scientist cannot excel by studying science alone. He must know how to perform mathematical operations, how to express his findings through writing, and how to properly research previously discovered data. The same is true for athletes. Specialists can incorporate drills from other sports to help them further develop their skills. Multi-sport athletes can take more time out of practice to lift weights to help strengthen the body and prevent injuries. Becoming a better athlete is very similar to becoming a better student. It takes time, collaboration, and experience through practice.

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Appendix A

A Study of the Number of Sports and Hours Spent Participating on the Physical Fitness of an Athlete: Participant Survey

Student's Gender (circle): Male Female

Student's Grade: _____

1. How many school sports do you participate in?
2. What school sports do you participate in?
3. What role do you have on your sports team(s)? Please check one of the following:
_____ I am a starter this season.
_____ I am not a starter, but play on a regular basis in each game.
_____ I play occasionally during games.
_____ I rarely play in games.
4. How many hours per week (on average) do you spend participating in each sport? If your sport(s) is not in season, list the number of hours you were participating in the sport(s).
5. How many hours per week (on average) do you spend training (lifting weights, running/sprinting) for sports? If your sport(s) is not in season, list the number of hours you were participating in the sport(s).
6. How many minor injuries (ex: sprained ankle, stitches, jammed finger, etc.) have you had due to playing a school sport?
7. How many major injuries (ex: concussion, broken bone, separated shoulder, etc.) have you had due to playing a school sport?
8. Have you ever suffered an injury to your ankle (sprain, fracture, torn ligament, etc.) playing a school sport? If so, how many times?

9. Have you ever suffered an injury to your knee (sprain, torn ACL, MCL, etc.) playing a school sport? If so, how many times?
10. Have you ever had a concussion playing a school sport? If so, how many times?
11. Have you ever suffered an injury to your shoulder (separation, torn rotator cuff, etc.) playing a school sport? If so, how many times?
12. Do you consistently have ankle, knee, or shoulder pain while participating in a school sport? If so, what type of pain and which sport?
13. Have you ever had surgery due to an injury caused while participating in a school sport? If so, what kind of surgery and from participating in what sport?
14. Do you experience any pain in either of your ankles while participating in a school sport?
15. Do you experience any pain in either of your knees while participating in a school sport?
16. Do you experience any pain in either of your shoulders while participating in a school sport?
17. Do you feel as if participating in one sport / multiple sports (please circle which option describes you) has helped you become a better athlete? Please briefly explain your reasoning.
18. Do you feel as if participating in one sport / multiple sports (please circle which option describes you) has caused you to experience more injuries than if you participated in more or fewer sports? Please briefly explain your reasoning.

**Teachers' Perspectives on the High School Dropout Problem and What Role They Can
Play to Help Prevent It from Happening**

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Education 5900, Spring 2016

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*The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149)
has approved this research project # 16-048.*

Introduction to the Problem

Education can be taken for granted sometimes. We constantly hear students saying, “Why do I need to learn Chemistry and Algebra? I am never going to use it!” If, later in life, they needed to know something, they could easily look it up on their smartphone in a matter of seconds, so they question, “What’s the point?” remains. The truth of the matter is America is witnessing a high school dropout epidemic (Hart, 2006). The high school dropout rate of at-risk students aged 18 years and younger has been estimated at approximately 40% (Natriello, McDill, & Pallas, 1990). Studies and data have shown no improvement over the past few decades, resulting in consequences on American education, economics, and job opportunities. Without a high school diploma, these children who drop out will be stuck in a minimum wage job and working paycheck-to-paycheck in order to pay rent and other bills, eventually struggling for years in order to make a decent living. Not every person is intended to go to college, but to receive a high school diploma could offer more opportunities than those who would rather give up and not try. Reducing these rates needs to be an urgent national policy issue. Our nation needs to allow policy makers, school board members, superintendents, congressmen, teachers, and parents to collaborate with one another on this issue and find solutions that will benefit everyone. It seems as though our money is directed to the private or high-achieving schools, but that is not fair to the schools that have been struggling with dropouts for decades. John Dewey said it best, stating that education is not preparation for life, but education is life, itself. Our country needs to make some changes and decrease the high school dropout rate.

Review of Literature

Research has demonstrated that, on average, in comparison to graduates, students who drop out of school experience higher rates of unemployment and incarceration and lower overall

lifetime earnings and life expectancy (Berkthold, Geis, Kaufman, & Carroll, 1998); Jemal, Ward, Anderson, Murray, & Thun, 2008; Moretti, 2007; Muenning, 2007; Rouse, 2007; Swanson, 2009; Waldfogel, Garfinkel, & Kelly, 2007). Many studies have attempted to decipher the factors as to why students decide to dropout, from minority class, socioeconomic status, parents' education status, and learning disabilities, but no significant changes have been made to all American school districts to help reduce the problem.

The majority of studies on high school dropout rates attempt to look at patterns and see if there is any correlation to why students drop out. Researchers have used data from the National Longitudinal surveys to measure different groups across different time intervals and identify the risk factors for dropout. In one particular study, the National Longitudinal and Transitional Study (data from parent and youth interviews) were used to explore the possible factors as to why students with disabilities dropout of school (Zablocki, & Krezmien, 2012). They concluded that students with emotional and behavioral disorders were at a higher risk of dropping out, and disciplinary exclusion, grade retention, and lower than average grades were associated with a higher risk of dropping out. Not all dropout students are from underserved groups. We tend to forget about the students with learning disabilities, and leave them without prevention programs and basic help for school success.

Some studies have looked into integrating intervention programs to improve graduation rates and stop students from dropping out. One group of researchers found overall success with a prevention program called the Effective Learning Program (ELP). The idea was to have "a school within a school," in order to help improve at-risk students' grades, behavioral problems, learning disabilities, and poor attendance. Overall, the students who participated in the ELP graduated from high school at a far greater rate than at-risk students who did not participate in

the intervention. In fact, at-risk students who participated in the ELP graduated at a higher rate than regular education students (Nowicki, Duke, Sisney, Stricker, & Tyler 2004). In another study, researchers felt that implementing career and technical education (CTE) could ultimately help motivate students to stay in school. By combining CTE courses with the academic curriculum, it prepares students for the transition to college and work (Castellano, Stringfield, & Stone, 2003). However, the overall problem with employing a prevention program is that it never remains consistent. Schools sometimes do not have the money or the resources to allow these prevention programs to be offered. If these studies are showing significant results in decreasing the dropout rates, why not provide some additional aid to the education system? At-risk students need opportunities in order to get ahead in life. Why not start in the classroom?

With all the reviewed literature, there is one aspect missing: the teacher's perspective. Other studies interview the child or the parent, and look at transcripts and graduation percentages, but fail to research the individual who is always in the classroom with the at-risk student and who witnesses all the behavior throughout the year. The voices of the teachers are, for the most part, absent, though they have the most potential to positively influence students, not only to graduate, but, also, to thrive in the school environment (Knesting-Lund, Reese, & Brody, 2013).

There is a need to carry out a survey that will focus on the teachers' perceptions on why students drop out, and what preventative programs can be put into place to help with the problem. If schools want to reduce the dropout rate and support students' persistence to graduation, teachers need to understand why students drop out, and the role they play in the dropout process (Davis & Dupper, 2004). The data from this study aims to validate whether the

“factors” we believe contribute to students dropping out are true. The teachers can explain personal theories and experiences, and truly express concerns and ways to reduce this epidemic.

Data Collection and Results

Data Collection

Subjects. All participants were licensed teachers, from the same high school in middle Tennessee. Participants varied in the grades and subject content taught, and the number of years teaching, as well as gender and ethnicity. Surveys were distributed to approximately 50 teachers, with 13 returned for analysis.

Instrument. A survey was the only instrument used for this study. In order to obtain comparable data from all participants for this research, participants were asked the same set of questions. The survey consisted of structured items, asking participants to answer on a scale. For example, participants were asked to mark the extent to which they agreed or disagreed with a statements. Another scale asked participants to mark if they have had individual discussions with students about topics. They were to mark never, rarely, sometimes, often, or very often. Another type of question asked requested a “yes” or “no” response, but requested participants give a further explanation. The last part of the survey asked a number of open-ended questions. This allowed the participants to explain in detail past experiences and opinions about the topic. A copy of the survey can be found in Appendix A.

Methodology

The survey was developed by researching a number of previous surveys that pertained to teacher perspectives on why students drop out. After viewing a number of different surveys, the researcher compiled a list of top reasons why students would drop out of school and asked each participant to elaborate on his or her opinions.

The researcher delivered the surveys to the school. Surveys were placed in each teacher's mailbox at the beginning of the week. Teachers who completed the survey were required to return them to the school office and place them in an envelope. At the end of the week, the researcher collected the surveys.

Results

The survey had a variety of different questions, as noted above. Several results stood out after analyzing all of the surveys:

1. In your opinion, in what grade do students most likely drop out?

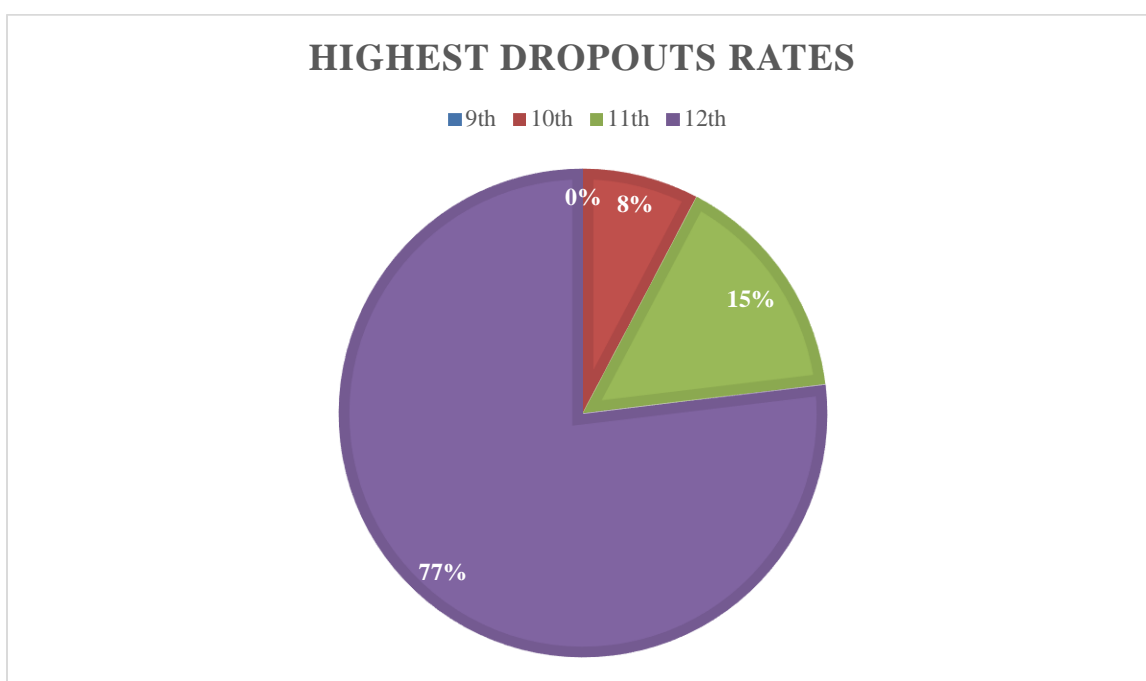


Figure 1. Represents the teachers' opinions on the grade from which the student is most likely to drop.

As indicated in the pie chart in Figure 1, the majority of teachers (77%) thought the likelihood of a student dropping out would most likely occur in the 12th grade, whereas 0% considered 9th grade. Prior to carrying out this study, the primary researcher hypothesized that teachers would select 11th grade. Being in the 11th grade has its obstacles. This is the grade in

which students are considering whether or not they want to go to college. They have the stress and obligation to take the ACT. Students begin to feel discouraged and overwhelmed and may decide to drop out before the senior year. This was not the case after reviewing the data.

Teachers believed that, by the 12th grade, students are 18 and have the legal right to drop out if they so wish and have the opportunity to obtain their GED.

2. Has anyone in your family (extended) ever dropped out of high school?

Family Member Drop Out	
Yes	6
No	7

Figure 2. The number of teachers who had a family member drop out of high school.

Out of 13 teachers, almost half of the participants had a family member drop out of high school (see Figure 2). This might be a result of the type of generation participating in this survey. The teachers might be considering one of their parents or grandparents who did not finish high school, because decades ago, people would drop out to work and take over a family business, go into the military, or find a job that paid well, with no high school diploma needed. The results indicate that dropping out was a common decision. Individuals have different circumstances and obligations that result in people either thinking that education was unimportant, or that it was valuable but was taken away from them due to those unfortunate situations.

3. At any point in your teaching career, did you have a conversation with a student that thinking about dropping out of school? If yes, explain the situation the student was facing, what guidance/solutions you offered, and whether or not that student stayed in school.

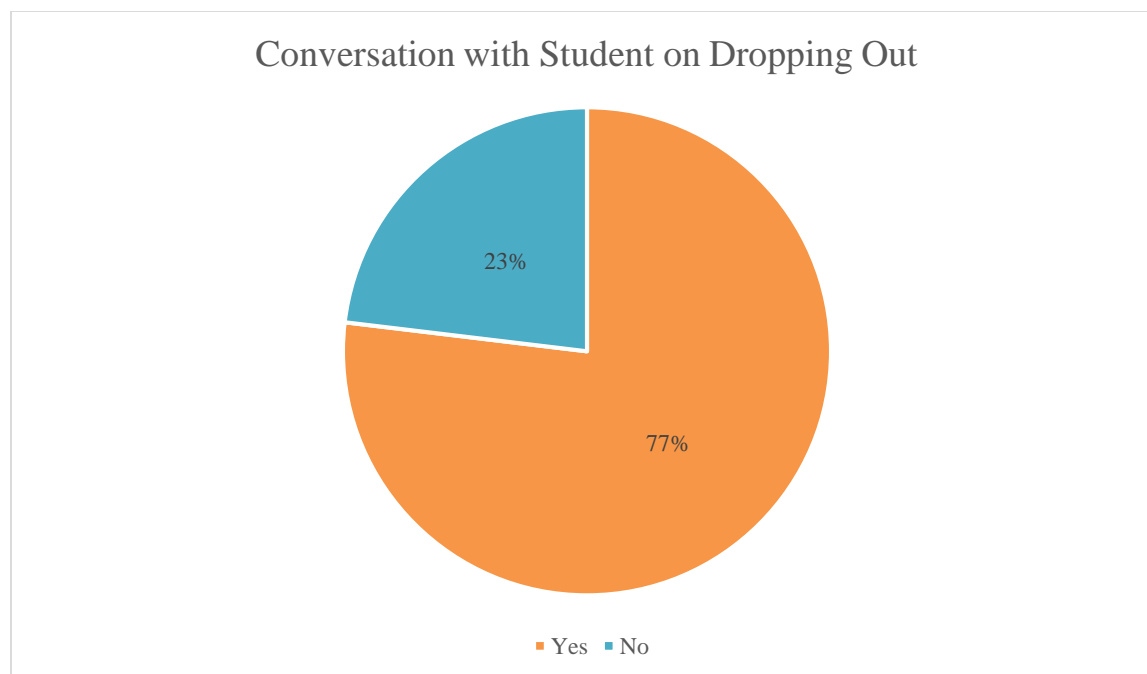


Figure 3. Showing whether or not a teacher had a conversation with a student who was considering dropping out of high school.

It was reassuring, yet alarming to know that teacher-student relationships were happening at the high school, with 77% stating he or she has had a conversation with students who were considering dropping out (see Figure 3). It shows that students are comfortable with having these difficult discussions and are asking for guidance from their teachers.

For this item, if the teacher answered yes, they were allowed to openly respond about the situation between them and the student. One teacher explained how their student was already falling behind in the grades 9 and 10, which made it incredibly difficult for them to catch up. The teacher mentioned that the student became scared because he or she thought they might not graduate on time because he or she was trying to make up the credits. Another teacher discussed a situation in which a student was planning on dropping out because the student already made the decision to go to trade school, and, unfortunately, the school did not offer any courses that would help him achieve this goal. Therefore, the student wondered, "Why waste my time learning

subjects that I do not need to know?” In a similar story, a teacher explained that a student was not “college bound” and wanted to pursue agriculture, instead. The teacher strongly urged the student to stay, however, the parents of the student did not seem to care, and the student eventually dropped out. Lastly, a teacher had a number of conversations with students who believed dropping out and then going back to get his or her GED would be easier. The teacher stressed several times that the GED is difficult to get and it takes a lot more work.

4. Mark how often you have individual discussions with any of your students about the following:

- Plans for college or work after high school
- Academic problems
- Family and/or friend issues
- Worries or stresses he or she may be experiencing

	Never	Rarely	Sometimes	Often	Very Often
Plans for college/work after high school	0	1	5	3	4
Academic problems	0	0	5	7	2
Family and/or friend issues	0	4	8	1	0
Worries or stresses he or she may be experiencing	0	5	5	3	0

Figure 4. Teacher responses on how often they had individual discussions with their students on certain issues.

For every item, none of the teachers marked never, which was encouraging to discover (see Figure 4). It appears that the majority of teachers are sometimes or rarely having these

discussions with their students. Roughly 62% of teachers are sometimes discussing family and/or friend issues with their students, while approximately 38% are rarely conversing about students' worries or stresses. These two stood out because some experts would contemplate that a student might be struggling in school due to these two huge problems. The analysis indicates that teachers may need to take a deeper interest in students' problems aside from academics. Students are becoming young adults and are beginning to develop mental capacity, not just from school-related instances, but, also, on a personal level. By this time, students are more prone to develop depression or anxiety. Students should feel encouraged to talk about the issues he or she is facing, especially if no adult figure is present or willing to help at home. A teacher should create an open door policy and be willing to help students have a successful high school career. It should be noted that a combined percentage for often and very often on the grounds that teachers have a conversation with students about academic problems is roughly 69%. This represents how determined and motivated the teachers at this particular high school were in helping students with their studies. It appears they want every student to achieve academically in all subject areas.

5. Thinking about your students now, mark the extent to which you agree or disagree with the following:

- I know about what's going on in my students' lives outside of school

I know about what's going on in my students' lives outside of school.	
Agree	5
Disagree	8

Figure 5. This represents the number of teachers who do or do not know what happens in their students' lives outside of school.

These results (see Figure 5) have a correlation to the previous item as, approximately, 62% of teachers disagree that they do not know what goes on in their students' lives outside the

classroom. The other 38% could be teachers who see their students more often, depending on the location. The teacher may go to the same church as the student, coach a sport or club the in which the student participates, or is close friends with the students' parents. Teachers are not required to know students personally and, if a student is performing well in his/her class, there may not be a necessity to know the student any more than what is experienced during class time. However, if a student is not performing well, missing class, or failing assignments and tests, it might be a good idea for a teacher to step in and determine why the student is having problems. Getting to the root of the problem might result in solutions for student success.

6. Rank the following items from the most likely reason students drop out of school to the least likely reason. (See Appendix A for full list of items.)

Top Reasons Students Drop Out	
Getting poor grades and/or failing school	27.3%
Missed too many school days	21.2%
Did not like school	18.2%
Problems at home	15.2%
Could not keep up with the school work	9.1%
Thought it would be easier to get a GED	9.1%

Figure 6. This presents the results of the top reasons, according to teachers, of why students drop out of high school.

In order to compile the chart above (see Figure 6), the researcher took every participants top three reasons of why students drop out and tallied the number of times each teacher chose each item. Tallies were then converted to percentages. With a percentage of 27.3, getting poor grades and/or failing was at the top of the list. One teacher explained that a typical dropout would occur once a student fails a class. Grades will continue to fall throughout the students'

high school years, resulting in lost credits, and, after a while, the student does not see the importance of their education, and a lack of motivation begins to develop. If a student reaches a point of no motivation, dropping out becomes the only way to escape the failure. The second reason students most likely drop out is due to missing too many school days (21.2%). According to one teacher, a student misses a lot of information when he or she is absent. If a student is missing a lot of school days, he or she will fall behind in the class, probably will not understand the material, and will, eventually, fail a big exam. This transitions to the top reason, getting poor grades and/or failing school. With regard to problems at home, one teacher stated that students do not drop out because they hate school, but because they had to drop out in order to support their families. Some have get a job to help pay for their parents' expenses while others have to care for their younger siblings while the single-parent goes to work. Whatever the reason is, one teacher had an alarming opinion, in which a typical student who drops out has been planning to for a long time. It shows that a student could be experiencing a series of unfortunate events, over time, prior to dropping out of school.

7. Does your school offer any program(s) to help student who may be struggling academically? If yes, explain the program(s) and what results it has brought to not only the school but to the students.

Programs that help students achieve academic success: 100% YES
RTI (Response To Intervention)
Credit Recovery
Tutoring
“Eagle Time”

Figure 7. The programs that are offered at the school to help struggling students ate noted.

The purpose of this question was to gain information on whether or not the school offered any opportunities for students to improve their academic performance, as well as determining whether or not the teachers were knowledgeable on what the programs were intended to accomplish (see Figure 7). The top three repeated answers that were given were: RTI, credit recovery, and tutoring. It was encouraging to see that every teacher responded with knowledge of programs and explained, in detail, the types of programs the school offered.

RTI was listed the most throughout the surveys completed. The analysis concluded that teachers knew what RTI was and the goals that went along with it. One particular teacher explained RTI very well. Through testing and producing data, RTI identifies the weaknesses of students in their core subjects of mathematics and English. Once identified, students go through an 8-week remediation program that helps them gain skills in those areas. If they are still deficient at the end of 8 weeks, they are placed back into the 8-week program with a new teacher and new study material. There is an overall consensus that this particular program shows great success. Students are able to improve and be able to move on quickly before falling behind.

Credit recovery is another program offered to improve students' academics. According to one teacher, it is offered at no cost to low-income students who need to make up requirements. This program is intended to help out the students who may have had a family or personal emergency arise during the middle of their school year (e.g., sickness, mental health, etc.) that caused them to miss many school days. Credit recovery could evidently decrease the stress of a student and make the process of making up lost credits a little bit easier.

A specific school program was mentioned by one teacher. During this time, students who are freshmen get additional help from teachers. If the student is struggling in a certain subject area or needs time making up missing work, a freshmen teacher is flexible and offers after school

tutoring. In addition, this program is intended to help students get acclimated to the high school environment. Analysis considers this to be a great way to fix a problem a student may be having early on, so a student will not fall behind and risk not graduating on time.

The last program that seems to be relevant in a majority of schools is tutoring. For this particular school, a teacher discussed how tutoring is offered both during and after school. There are two different types: formal (paid for by the school district) and voluntary (many teachers tutor before and after school, on their own time). Analysis revealed teachers really do understand the programs offered to help struggling students. The fact that teachers appear to be willing to tutor students during and after school, participate in RTI, and have credit recovery for low-income students shows that this school cares about every students' well-being. In addition, these programs seem to be showing great results and are continuing to help students in certain academic areas.

Conclusions and Recommendations

Conclusions

The data presented has shown the generalization that teachers are knowledgeable when discussing the issue of the high school dropout problem. A vast number of teachers have encountered an experience with a child who was considering dropping out of school. Some succeeded while others failed. Regarding the open-ended question on how much of an influence teachers have on students' decisions to drop out, only a small percentage of teachers had a negative response. They believed teachers played a small role when the students consider dropping out. Trends have shown that the teacher is only responsible for teaching the material and helping a child pass the course, but for personal issues, the teacher takes a step back. They find that responsibility falls on the parent and/or guardian. Some teachers mentioned that, if a

student is unmotivated and not willing to give any effort in his or her education, they ask, “What’s the point?,” or state, “I do not get paid enough to try to make a student love school.”

The other teachers were on the opposite side of the spectrum, stating that, although it depends on the relationship, teachers have the capabilities to influence students’ lives. Teachers influence by action. If the teacher cares about that student, communicates daily, and establishes a mentor type relationship, the student will look up to that teacher and reconsider their decision of dropping out.

The data showed that, though there were several top reasons of why students drop out, each reason seemed to be connected to the other. One teacher explained how the problems are linked. Like spokes in a wheel, many cannot be separated. Since these reasons can relate to one another, after a certain point, the student breaks and cannot deal with the pressure and stress anymore. They believe the easiest solution is to drop out.

The data revealed that teachers were aware of the programs offered at their school that are designed to help struggling students. So far, the programs are working well in their school, resulting in increased student success rates.

Recommendations

One suggestion for teachers, principals, and administrators is to develop a strong professional development program that has a primary goal of boosting student involvement in school and decreasing the number of dropouts within a 2-year period. Not only should programs help students academically, but help students who may be experiencing some personal issues. Students should not feel afraid to talk to an adult in school about what is happening at home. We need to know if the student is getting the support at home, as well as in school, because, if a child feels valued, then he or she will put in the effort and want that diploma by the end of senior year.

Another aspect to consider is building strong teacher-student relationships, especially when the student transitions to a different grade each year. The student should not feel isolated or abandoned throughout those four years in high school. This can be achieved during the first week of school every year. Teachers could develop questionnaires or have one-on-one interviews with each student in order to get to know them better. The key is to check in often, throughout the year, to make sure the student is still doing well and no problems are arising.

Although a lot of information and certain trends were revealed, this research study is very limited. For one, the sample was very small, with only one high school agreeing to participate. The research only reveals what this one particular high school is doing to prevent high school dropout rates, instead of what a number of schools are doing to prevent the issue. This makes the process of determining trends and conclusions more difficult. With this being said, a more extensive study needs to be performed. It would be ideal to have a number of schools from different counties across Tennessee, or different schools from across the country, take the survey. One might get to see trends geographically and economically, if this approach is taken. The consensus, with regard to this national, state, and local issue, is that it should not be overlooked. Decreasing high school dropout rates needs to be labeled as important because education is vital to having a successful future in life. Not just teachers, but everyone, should emphasize how an education makes future endeavors more achievable and offers more opportunities in life.

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Appendix A

Teacher Perspective on the Student Dropout Problem

Teachers,

Thank you for your time and honest feedback while completing this survey. Once you've completed this survey, place it in the envelope in the school office. You do not have to complete every aspect of the survey. I appreciate your opinions and experiences.

General Information (Place a check mark)

Please indicate your gender	Male	Female		
Please indicate the grades you teach	9 th	10 th	11 th	12 th
Please indicate your race	Caucasian	African-American	Asian	Other
How long have you been teaching?	1-5 years	6-10 years	11-20 years	More than 20

Has anyone in your family (extended) ever dropped out of high school?

YES NO

In your opinion, what grade do students most likely drop out?

9th 10th 11th 12th

At any point in your teaching career, did you have a conversation with a student that was thinking about dropping out of school? If yes, explain the situation the student was facing, what guidance/solutions you offered, and whether or not that student stayed in school.

YES NO

Explanation:

How well do you think your SCHOOL is preparing students for the following?

	Not at all well	Not very well	Well	Very well	Extremely well
To know how to learn					
To go to college					
To be gainfully employed					
To understand civic responsibility					
To get along with others					

Thinking about your students now, mark the extent to which you agree or disagree with the following:

	Strongly Disagree	Disagree	Agree	Strongly Agree
Students in my school care about learning and getting a good education.				
Students in my school have input into the school decision-making process.				
I know about what's going on in my students' lives outside of school.				
I am able to teach to my students' individual strengths and weaknesses.				
I know what students think about their schooling experience.				
Students in my school get to be creative and use their abilities in school.				

Does your school offer any program(s) to help students who may be struggling academically? If yes, explain the program(s) and what results it has brought to not only the school but to the students.

___ YES ___ NO

Explanation:

Mark how often you have individual discussions with any of your students about the following:

	Never	Rarely	Sometimes	Often	Very Often
Plans for college or work after high school					
Academic problems					
Family and/or friends' issues					
Worries/stresses he/she may be experiencing					

Mark the extent to which you agree or disagree with the following:

	Strongly Disagree	Disagree	Agree	Strongly Agree
At my school, students are likely to find a teacher that they could talk to.				
My school sets up goals for students and follows through with those goals.				
Both teachers and administrators collaborate well to help improve problems.				

Rank the following from the most likely (1) reason students drop out of school to the least likely reason (15).

- ___ Missed too many school days
- ___ Thought it would be easier to get a GED
- ___ Was getting poor grades/failing school
- ___ Did not like school (unmotivated)
- ___ Could not keep up with schoolwork
- ___ Could not get along with teachers
- ___ Did not feel they belonged
- ___ Could not get along with other students
- ___ Was suspended
- ___ Changed schools frequently
- ___ Did not feel safe (bullied)
- ___ Was expelled
- ___ Problems at home
- ___ Got involved with drugs/alcohol
- ___ Had other obligations (take care of siblings, part-time job)

Take the top three reasons you chose from the list above and tell why you believe these three are the factors as to why students drop out of high school. During this explanation, you may explain an experience that you once encountered during your teaching career and/or discuss your theories and knowledge about the dropout issue our nation is facing. Please do not use names of students and schools, to maintain confidentiality.

Response:

Open-Ended Questions:

1. How has your school's dropout rate been during the last five years?
2. In your opinion, how much of an influence do teachers have on a student's decision to stay in school or not?
3. Has your school implemented any interventions to help at-risk students? If so, what were they? Were they effective? If not, explain what steps could have been taken to improve the program.
4. What can educators (not just teachers) do to prevent future student dropouts from happening?

Other Comments: What other questions, remarks, or concerns do you still have about this issue after completing this survey?

Response:

**An Ex-Post Facto Study of English Language Learners' Academic Success Based on
Participation in Inclusion or Exclusion Classroom Models**

Aubrey Shields

Education 5900, Spring 2016

The University of Tennessee at Chattanooga

*The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149)
has approved this research project # 16-043.*

Introduction to the Problem

With an influx of English Language Learner (ELL) students, classroom models have changed, nationally. This influx has affected my classroom at a high school in north Georgia, which is, currently, 75% Hispanic, and is classified as a Title I school. Despite this large influx of ELL students, there is a shortage of ELL and bilingual teachers, especially those who can speak the same language as these new immigrant children (Fu, House, & Huang, 2007). The United States is a country founded on liberty. Appropriately, the country is very likely to continue to see a large number of non-English-speaking immigrants. With the number of ELL students on a steady rise, educators need to advocate in their schools and communities for the adoption of an appropriate ELL program (Honigsfeld, 2009). Non-English speaking minority groups have often struggled and failed to successfully complete their education in North American schools. This has been attributed, in large part, to an inability to learn both English and subject matter, at the same time (Cohen & Swain, 1976). Teachers of ELL students must be prepared to handle students who do not know how to learn properly, or ask for help, as needed. Educators will need to engage with learners who come from advantaged and disadvantaged contexts, many of whom will not have access to the language of instruction or the language of the teacher (Naicker & Balfour, 2009). Not only must educators decide which classroom model is best, the educators must also keep in mind that students come from disadvantaged situations. For many years, the focus of policy debates relating to the education of ELL students has been on the question of language of instruction, contrasting bilingual and English-only approaches (Cheung & Slavin, 2005). This contrast in classroom models is the basis of this research project. ELL instruction is an issue in need of reform across each content area, and across the nation.

Review of Literature

Fu et al. (2007) offer, that despite the ever-changing demographics of our country, the number of ELL teachers and programs has not grown to reflect this change. The country's sense of urgency must increase so that the growing number of learners that we serve are educated in a way that best meets their needs.

Naicker and Balfour (2009) urge teachers to realize that we will constantly be teaching students from a variety of backgrounds. These backgrounds can include language deficiencies, socio-economic disadvantages, or learning disabilities. The authors state that teachers must be able to differentiate their instruction based on a number of factors, and must be flexible in doing so, in order to reach learners in the most effective manner.

Cohen and Swain (1976) support the inclusion model that is the focus of this research project. Many in the field of education hypothesize that learning both a new language and new content, at the same time, can overwhelm ELL students. However, Cohen and Swain argue that the potential to learn is limitless, and that the learning of language, while simultaneously learning content, actually helps students to learn and retain information.

Honigsfeld (2009) provides insight on the argument that one classroom model cannot be used universally. She supplies that every classroom, every teacher, and every student is dramatically different. Therefore, teachers should differentiate their instruction and their classroom models to best serve their students. It is instinct to set up ELL classrooms in a structure that is proven to work. However, she argues that this is not always productive or effective, and that the classroom model that shows success for a period of time may not always continue to do so.

Cheung and Slavin (2005) set the baseline for the argument made in this research project. They present that there has long been debate about inclusion versus exclusion models. In

inclusion models, they describe how students are taught both academic and conversational language, as well as content. In exclusion models, they provide that students are taught only academic language, and do not receive conversational support, integration, or content instruction. This article begins the argument that is explored in this work, and provides a starting point for an issue that must be solved through research, and followed through with professional development.

Data Collection and Results

Data Collection

Subjects. The participants include adolescent students, ages 16-17, as US History is a junior-level class. The study includes 10 females and 10 males, and was conducted over three academic units, for, approximately, 3 months. Half of the students were in an inclusion setting, and the other half were in an exclusion setting. The students were from a variety of socio-economic backgrounds, and were made up. Primarily. of Hispanic, Spanish-speaking ELL students.

Methodology. Before the study began, a roster was obtained from the school's online academic system for both the inclusion, blended class and the exclusion, sheltered class. Because the test was single-blind, I obtained permission from the school administrator to collect data from the post-test. Following testing, the post-test scores of the students in both classes were recorded and compared. Students in the inclusion setting were then taught English-only, content-based US History. Students in the exclusion setting were taught only language skills based on US History content. Following completion of the units, students were given unit exams to assess which course reflected the greatest student learning and the higher overall exam scores, on average.

Results

A narrative list of Georgia standards met in the three units are presented in Appendix A. The overall data of test scores is presented in *Figure 1*. Value 1 compares the exam scores for the Unit 5 exam. Value 2 compares the exam scores for the Unit 6 exam. Value 3 compares the exam scores for the Unit 7 exam. Value 4 compares the overall class average across the results of three exams. The y-axis represents the unit exam average and the x-axis represents the inclusion or exclusion group. The data and chart provided detail the mean test score results. The inclusion classroom showed higher test scores on each of the unit exams, as well a higher mean on a summative average of all test scores.

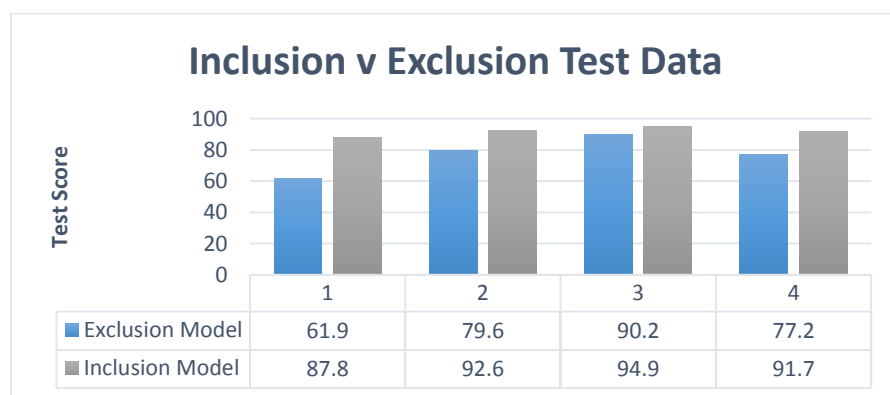


Figure 1. A comparison of post-test scores from each unit, as well as the overall class averages is presented.

Conclusions and Recommendations

Conclusions

Generalizations of this study include evidence to support the original hypothesis formulated during project implementation. These generalizations are that ELL students in exclusion classrooms receive adequate education, but this classroom model results in average test scores, and that ELL students in inclusion classrooms receive adequate education that consistently result in above-average test scores. In my professional opinion, the results support the use of the

inclusion classroom model for ELL students. Not only does data provide evidence of the superiority of this classroom model, but teacher observations also provide that students in push-in, inclusion classroom models receive conversational English skills, are participating in their least restrictive environment, and are able to receive both language and content support.

Recommendations

Recommendations for teacher development include a mandatory undergraduate class that prepares teachers for working in ELL classrooms. Because the problems addressed in this study are a growing issue, it is imperative that teacher-training programs ready potential teachers for language deficiencies, as well as learning disabilities. Also, for teachers already licensed, school systems should provide professional development for ELL classroom strategies. These developmental programs could include training in the Sheltered Instruction Observation Protocol model (Center for Applied Linguistics, 2017), or any other inclusion model technique. Grant money is available for this professional development, especially in school systems that have Title I funding or have a large number of language minority students. These are state-appointed grants that are assigned to ELL programs. Technology could be used in this area as a means of translation. By preparing teachers to set up inclusion model classrooms, the problem of bilingual educators will still exist. Therefore, teachers should be trained to adjust their classroom model to what is necessary for each class, but should be provided with technology to bridge the language deficit that will still exist.

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Appendix A

Narrative Form of Expectations and Student Performance Indicators

Unit 1: US Georgia State Standards for US History: SSUSH7b-e, SSUSH8c-d

US History: Content Standards:

SSUSH7: Students will explain the process of economic growth, its regional and national impact in the first half of the 19th century, and the different responses to it.

SSUSH8: The student will explain the relationship between growing north-south divisions and westward expansion.

Unit 2: Georgia State Standards for US History: SSUSH8a-b, SSUSH9a-f

US History: Content Standards:

SSUSH8: The student will explain the relationship between growing north-south divisions and westward expansion.

SSUSH9: The student will identify key events, issues, and individuals relating to the causes, course, and consequences of the Civil War.

Unit 3: Georgia State Standards for US History: SSUSH10a-f, SSUSH13c

US History: Content Standards:

SSUSH10: The student will identify legal, political, and social dimensions of Reconstruction.

SSUSH13: The student will identify major efforts to reform American society and politics in the Progressive Era.

From

<https://www.georgiastandards.org/standards/Georgia%20Performance%20Standards/United-States-History.pdf>