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Edited by

Deborah A. McAllister

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College of Health, Education, and Professional Studies

The University of Tennessee at Chattanooga

Abstract

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 2), are presented. This Action Research Project includes: (1) Second Language Acquisition and Vocabulary Instruction in an ESOL Classroom: Which Model Works Best? (Bradley Balthrop); (2) Action Research Study of Classical Teaching Methods vs. Active Learning Methods in the Middle School Social Studies Classroom (Brian Bass); (3) A Case Study Documenting the Effects of Response to Intervention Practices on Mathematics Success in Elementary Education (Jessica Kane); and (4) The Different Approaches to Teaching English as a Second Language in Japan and the U.S. and How this Affects the Student's English Skills (Asami Nakano). (Individual papers contain references, figures, and appendices.) [For "Culminating Experience Action Research Projects, Volume 18, Part 1, Spring 2016," see ED573167.]

Deborah A. McAllister

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Second Language Acquisition and Vocabulary Instruction in an ESOL Classroom: Which Model Works Best?

Bradley Balthrop

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 #16-046.

Introduction to the Problem

There has been an on-going debate on the topic of English as a Second Language (ESL) instruction among educators around the world. Educators and scholars have differing views on the most appropriate and effective model of instruction for English language learners. These models of instruction include the pull-out model, where students leave the regular classroom for an amount of time each day, and the push-in model (inclusion), where students remain in the regular classroom and receive extra support from an ESL instructor.

The researcher will be gauging the differences in ESL student progress through inclusion instruction versus pull-out instruction, by focusing on the acquisition of academic vocabulary. The researcher will examine the effects of each model of vocabulary instruction in an ESL atmosphere and test which model of instruction will benefit ESL students the most. More specifically, the proposed question is, "Do ESL students taught in an inclusion setting, score higher on vocabulary assessments in language arts and reading than students taught in a pull-out setting?"

Being an ESL teacher for 4 years, I have observed and experienced, firsthand, the different models of instruction for ESL students. I have attended several professional development meetings, some advocating for the effectiveness of pull-out instruction and some completely opposing pull-out instruction, yet advocating for inclusion instruction. I have heard both sides of why one model is more effective than the other, and I often wonder if ESL students truly show a significant growth in their language learning through one model over another.

This particular idea of pull-out instruction versus inclusion instruction also sparked my interest because my own school district is in the process of transitioning from pull-out instruction to inclusion instruction.

Review of Literature

The following literature review assists in giving the reader multiple perspectives of which models of instruction may be deemed the most effective.

One of the many reasons why educators have had differences over whether they believe a particular model is more effective may have to do with their own understandings, or misunderstandings, of ESL instruction and how it should work. Clair (1995) studied the mainstream classroom teachers' perspectives about the learning of ESL students due to the fact that previous research showed teachers were not properly trained to deal with English language learners. Because they have not been properly trained, they do not have a great understanding of how to appropriately teach these students. Clair closely studied three mainstream classroom teachers in grades 4, 5 and 10, for 1 year. Of the three teachers, only one of them attended in-service workshops related to English language learners. This teacher expressed that she still felt dissatisfied with the training because it did not provide her with enough tools or ideas. As a result, Clair found that teachers want quick and easy fixes that will allow them to improve their instruction for ESL students, and they lack the understanding of second language acquisition and the positive attitudes that foster achievement among the ESL students. She suggested that teachers begin ongoing study groups as opposed to one-time trainings, to continue improved instruction and learning for ESL students. These study groups would include "critical reflection and problem posing" and "provide an in-depth opportunity to explore complex issues" that would promote self-development and learning among the teachers (p. 195).

Roessingh (2004) looked at 12 different studies of ESL instruction in various educational systems that had occurred over the previous 14 years to identify "major themes," and decipher the processes and implementations of each program. In doing so, he intended to identify the

gaps in the designs that would "lead to instructional and policy reform" (Roessingh, 2004, p. 611). The questions Roessingh wanted answered were: "What variables in the school and classroom affected ESL learners' achievement, and how can the variables be more specifically described?" and "What are some of the key characteristics between programs and practices for ESL learners, and which ones are good or bad practices?" (p. 613). He found that there were significant differences in the demographics of the immigrant population, and that ESL learners were overly represented in statistics portraying dropout rates and failures in academics. Other variables included were administrative support, time for professional collaboration among educators, time, explicit language instruction and advocacy for English language learners. He noted that "good inclusionary practices that have been identified in the effective schools literature are a necessary but insufficient response to the learning needs of immigrant children" (p. 632). He also suggested that more data collection needed to occur within the classrooms to "further enrich the understanding" (p. 633).

A study conducted by Platt, Harper and Mendoza (2003) looked at the "recent developments" of inclusion and separation in Florida. A survey was conducted involving 29 different administrators from different schools in Florida that gave their rationales behind which type of model was used in their schools and "their beliefs about the effectiveness of each model" (p. 105). The rationales from these 29 different administrators seemed to have differing views because they supported one model over the other and criticized the opposing model due to personal experiences within their own schools. Platt et al. (2003) concluded that programs that separate students, such as the pull-out model, are not better because they do not "rapidly prepare students" in all domains of the language skills -- reading, writing, listening, and speaking in a regular classroom. They also stated that a program should not be based on a sense of "comfort

level" for the students, for which supporters of the pull-out model proudly advocate. Rather, an effective program should "advance the academic program through instruction that is well integrated with the content and skills of the academic disciplines," and it should be "balanced with the attention to the language development needs of the students" (p. 127).

Johnson (1987) studied 11 districts in California to understand the organization of instruction for English language learners and to see what would be considered "high-quality education" for these students. She discovered that 68% of the sessions they observed involved ESL teachers working in the mainstream classroom for inclusive support for the English language learners. In 32% of the sessions observed, the ESL teacher pulled the English language learners from the classroom for "segregated" instruction (p. 443). Results from examinations of the "instructional contexts" conducted in these districts showed that the regular classroom teacher had low-level awareness of the English language learners' activities and progress when they were pulled out of the classroom. She found that "collaborative planning" among the faculty and "strong administrative support" from the principals and other administrators were essential for the high-quality education that should be provided for English language learners (p. 437). In other words, pull-out programs appeared to be ineffective when considering a collaborative approach to planning and instruction.

Frattura and Capper seemed to have a similar view as Johnson. Frattura and Capper (2006) studied and observed the outcomes and principles of pull-out programs for students with limited English and others with special needs to compare the effectiveness of traditional pull-out programs and inclusion. They classified the principles into "four different cornerstones" – the "core principles, location of services, curriculum and instruction, and funding and policy" (p. 355). In looking at different schools across the country of the United States, these researchers

found that students participating in these pull-out programs have not shown a great improvement rate in completing high school in the previous 25 years; 22% with disability labels fail to graduate and 9% without labels also fail to graduate (p. 356). In addition, they found that these pull-out programs are more costly because they require extra space, extra staff, and extra materials, and they only give support to some students instead of all students receiving more help. Frattura and Capper stated that inclusive services allow for the placement that is "least restrictive, least intrusive and least disruptive in their daily lives; encourages independence in learning and not being overhelped … and ultimately is the least expensive" (p. 362).

To emphasize how an inclusive model of instruction provides a more effective approach to learning for ESL students, Brice and Miller (2000) focused on the strategies that helped support them. They conducted a case study on a bilingual English language learner in a second-grade classroom. The student was in a pull-out program for reading and some math instruction. He received the rest of his instruction in the mainstream classroom. This study focused mainly on the effective strategies that the mainstream classroom teacher implemented to help the English language learner succeed academically. Strategies used to support the English language learner were as follows: "let Spanish speakers take risks in English," allow them to speak up even when it may not be completely related to the academic topic at hand, allow for longer wait response times, pair the English language learner with a bilingual student who has "better English skills," "reiterate information and check for vocabulary understanding" and meet with the other teachers involved with the English language learners to discuss their progress (p. 238). After observing these practices, Brice and Miller found that, in order for inclusion to be successful, it requires a lot of preparation and planning, open communication among educators, and training.

In another study by (Brice, Miller, & Brice, 2006), more strategies were mentioned that instructors can use for English language learners that can assist in their learning. The strategies discussed were derived from five studies conducted beforehand on bilingual students in elementary-level mainstream classrooms, ESL classrooms, and speech and language classrooms that proved successful. Some of these strategies that were observed and listed to improve instruction were to build lessons on the students' background knowledge, provide written copies of directions to complement oral instruction, ask prediction questions, teach self-study skills, have students ask high-level thinking questions, and use grammar drills and direct instruction. The idea behind these strategies is to close the gap of the "lack of understanding of the language and pragmatic skills" among English language learners (p. 242).

Encouraging the diversity of culture within the school and mainstream classroom, Young (1996) explains how to appropriately use the resources available to educators to support ESL students in their learning. The article describes how teachers can support ESL students in the mainstream classroom and what support systems exist for teachers and their mainstreamed ESL students. Young uses her knowledge of historical events related to ESL, and the knowledge of other experts in the field, to bring awareness to the effectiveness of specialized training for teachers in teaching ESL students. She also explains how specific roles within the school, such as reading specialists, librarians, and native-speaking students, can contribute to extra support for ESL students when they are placed in the mainstream classroom. For example, reading specialists can assist the mainstream classroom teacher in the reading process and how it relates to language development, and librarians can provide the "print environment" that ESL students need access to, in order to adequately develop their reading and other language skills.

Collaboration and implementing strategies, such as "contextualization, vocabulary-building, and visualization" are key when supporting the academic success of ESL students (p. 23).

Mabbott and Strohl (1992) described three different types of models for ESL instruction in the state of Minnesota, and it explained the advantages and disadvantages of each model, which were the "pull-out model," the "self-contained class model" and the "pull-in" or "collaborative inclusion model" (p. 21). They derived the definition of each model from the Minnesota Department of Education Handbook. They also focused on one school to have an in-depth look at a particular effective "pull-in" program, which contained a large population of Hmong students. They concluded their research by stating that the pull-in program "does the most to integrate LEP [Limited English Proficient] students into the mainstream while still giving them the support they need (p. 29). It was also noted as the approach that would be best to implement both content and language support in instruction. However, they also recognized that the effectiveness of the pull-in program depended on various factors such as, "students' linguistic abilities and the teaching resources that are available" (p. 29).

Seaman (2000) also compared pull-out instruction with a self-contained program by describing a study implemented in Wheaton, IL in 1999 that compared a self-contained ESL program and ESL pull-out programs. Both of these programs existed within the same school district. Students in the self-contained ESL program and pull-out programs all had very low language skills, "indicating that they needed a significant degree of support" (p. 3). All participating students in both programs had similar ethnic backgrounds, were in school every day for the same amount of time, and were all in the same grade level. The self-contained ESL program involved team-teaching, meaning that a classroom teacher and an ESL teacher paired to teach one class. The results of the study showed that there was a statistically significant

difference between the level of student engagement and the level of interaction between teachers and students. There was a more favorable outcome in the self-contained ESL program.

Other research was found to get input about what teachers actually thought about the effectiveness of inclusion. Reeves (2006) studied different teachers' perceptions on the idea of inclusionary practices for English language learners (ELL), and surveyed 279 high school teachers on four different categories or subjects relating to ESL inclusion within the mainstream classroom. These four categories included "ELL inclusion, coursework modification for ELLs, professional development for working with ELLs, and perceptions of language and language learning" (p. 131). The results of the survey showed that the high school teachers were neutral to slightly in favor of inclusion for English language learners. However, although the survey portrayed positives attitudes from teachers on the subject, the data proved that teachers were still struggling and not understanding how "multilingual school environments" should look and how it may be different from what most people think of as a regular or normal school environment that does not include speakers of other languages (p. 139).

Also studying the input given by teachers were Reynolds, Jiao, Nolin-Smith, and O'Brien (2013). Their research found several varying factors that allowed for a push-in "PI" model or pull-out "PO" model of instruction to be effective or ineffective. These researchers distributed a survey intended for educators across the United States to get an idea of their input on the effectiveness of each model of instruction. The success of a certain model of instruction depended on how much support teachers received in their schools to implement such models and how well they were "managed by administrators" (p. 15). Staffing within a school appeared to be a common issue, as well. Several teachers mentioned that they felt the pull-out model would be more successful if they had more staffing to accommodate the needs of the students. For both

PI and PO, scheduling also appeared to be a major issue. Mainstream and ESL teachers struggled to find time to collaborate and communicate with one another to "share effective instructional practices and the content expectations for the ELLs" (p. 15). Scheduling was also an issue for the students because there were times that they may miss work in the mainstream classroom through the PO program. Teachers also said there was not enough time given in a PO program to implement all of the language skills, such as reading, writing, listening, and speaking. A PO program may also not work due to the "groupings" of students because some students may be more academically advanced than others. Scheduling was also a major issue for PI programs because ESL teachers do not have enough time in the day to collaborate and plan with all of the teachers in the school building that have English language learners. PI programs seemed ineffective because the students can be too spread out in different classrooms, which does not make it easy for the ESL teacher to accommodate all of his or her English language learners. Researchers concluded that both PO and PI were "fundamentally flawed," and that, possibly, a blend of the two programs might be a more effective route to take in improving the academic and language skills of English language learners (p. 31).

Other researchers, such as Duke and Mabbott (2001), also suggested that a third model of instruction may be more effective than the push-in or pull-out model. Pull-out instruction "causes frustration among the mainstream teachers because of the class time the ESL learners miss" (p. 11). Teachers working with a push-in or inclusion model feel that their "expertise is not being utilized" and feel that a pull-out model is more effective for ESL students because they are able to get away from native-English speakers for a while, which allows them to feel more comfortable "practicing their own language skills" (p. 14). This research seemed to say that a third model of instruction needed to be created to find a better solution for the issues that arose,

such as “the scheduling, social, and academic issues” that happen regularly in a traditional model of instruction. The implementation of this new program would allow for more opportunities for more “participation with mainstream peers in grade level curricula and classroom routines and activities” (p. 16). Their belief was that integration among the students, as opposed to isolation in a pull-out situation, would show improvement in social development and language acquisition over the years. Additionally, they decided to introduce a new concept through their native language, and reintroduce the concept in English via the mainstream or ESL teacher. Lastly, they decided to provide more small-group, sheltered instruction that would support the English language learners’ needs. Results, through academic test scores, from the study showed that this new model was more effective in increasing the English language learners’ performance in reading fluency and math computation than a traditional pull-out model of instruction.

Taking all of this research into account, it appears that most researchers are in favor of inclusive practices that allow for the integration of subject content and language skills. They have found strategies that enable this sort of program to thrive because it has helped ESL students progress in both their academic and language skills more so than what the pull-out programs have done in the past. However, there are many opposing views about what is right for the academic growth of English language learners. Several school systems still provide the pull-out model of instruction, despite all of the research that states the ineffectiveness of it. More research must be done to see why these school systems still consider this type of instruction an ongoing practice for schools. Assessments and observations may be able to discern that one type of instruction may not always be more effective than the other by focusing on acquisition of academic vocabulary. In this case, push-in instruction may not always be more effective than pull-out instruction for English language learners.

Data Collection and Results

Data Collection

This study occurred across a period of 3 weeks in two kindergarten classroom settings at a suburban elementary school in Hamilton County, TN. The first classroom setting was a mainstream, inclusive kindergarten classroom, and the second classroom setting was a small, pull-out classroom that contained only a small group of English language learners in kindergarten.

The idea behind this current research was to examine the effects of the inclusion model versus the pull-out model in vocabulary instruction to test which model of instruction would benefit the ESL students the most. Therefore, students were assessed using the same informal and formal assessments, although there were two different groups being instructed in two types of environment.

Subjects. There were a total of 12 research participants in this study who were all enrolled in kindergarten. There were two groups of six Hispanic students in a low-socioeconomic, elementary school. One group of six Hispanic students was in an inclusion setting for ESL instruction, and the other group of six Hispanic students was in a pull-out setting for ESL instruction. Students were already placed in these groupings before the research began because that is how the ESL department functions in the school. Therefore, these groupings were not random and were preselected based on their level of English-language proficiency. The two groups chosen for the study were both considered on the "intermediate" level of the English-language proficiency spectrum. The inclusion group will be referred to as "Study Group A," and the pull-out group will be referred to as "Study Group B."

Methodology. Two ESL teachers were needed for this study, due to the time constraints in the daily school schedule. One ESL teacher taught the push-in (inclusion) group, and the other ESL teacher taught the pull-out small group. The delivery of instruction for the two groups was the same. Both teachers used the same forms of assessment throughout each week. The only variable between the two groups was the inclusive setting versus the pull-out setting.

The formal assessment used in this study was a weekly oral pre- and post-test called the Vocabulary Knowledge Scale Assessment (VKS). The VKS was created by Wesche and Paribakht (1996), and is "useful in reflecting shifts on a self-report scale and is sensitive enough to quantify incremental word knowledge gains," (Stahl & Bravo, 2010, p. 570) and "it combines students' self-reported knowledge of a word in combination with a constructed response demonstrating knowledge of each target word" (p. 570). Students are scored on a range of 1 to 5 points for each word they have been instructed to learn.

The following lists the descriptions of the point values and their meanings (Stahl & Bravo, 2010):

- 1 point - The student does not remember having seen the word before.
- 2 points - The student has seen the word before, but does not know what it means.
- 3 points - The student has seen the word before, and thinks they have a definition for the word (although it may not be accurate).
- 4 points - The student knows the word and gives a synonym or the true definition of the word.
- 5 points - The student can use the word in a sentence correctly.

Other informal assessments were used in between the pre- and post-test as a way of maintaining student awareness of the vocabulary words for each day of the week. These

informal assessments included a four square for students to illustrate each of the four vocabulary terms for that week and a PowerPoint quiz with illustrations with which students matched the terms.

Because this study occurred over a period of 3 weeks, each set of four vocabulary terms had a theme. The first theme was the butterfly life cycle, the second theme was the frog life cycle, and the third theme was the plant life cycle.

The typical schedule for one week included the administering of the VKS as a pre-test on Monday, the introduction of the vocabulary along with a read-aloud session of a book that included the vocabulary terms on Tuesday, the administering of the PowerPoint quiz assessing students as a small-group on the terms on Wednesday, the student creation of an illustration using the four square template on Thursday, and the administering of the VKS as a post-test on Friday.

Results

For the first week, Study Group A scored an average of 2.41 points on the pre-test and 4.25 points on the post-test (see Figure 1). The average points gained between the pre- and post-tests in Study Group A was 1.83 points (see Figure 3). The mode on the post-test for Study Group A was 5 points, meaning students in this group could give the true definition of each term and use most of these terms in a sentence correctly. Study Group B scored an average of 2.16 points on the pre-test and 3.83 points on the post-test (see Figure 2). The average points gained between the pre- and post-tests in Study Group B was 1.66 points (see Figure 3). The mode on the post-test for Study Group B was 4 points, meaning that students in this group could give the true definition of each term, but could not necessarily use them correctly in a sentence. Although Study Group A showed more growth in vocabulary knowledge than Study Group B, the

difference in the average point gain was only 0.17 between the two groups; therefore, the difference in growth was negligible.

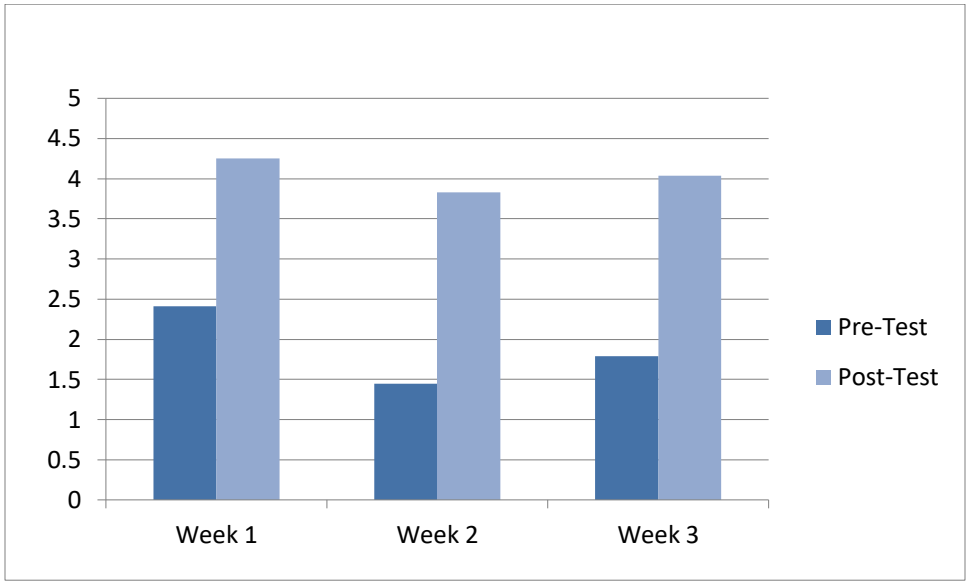

Figure 1. The pre-test and post-test scores for Study Group A are presented.

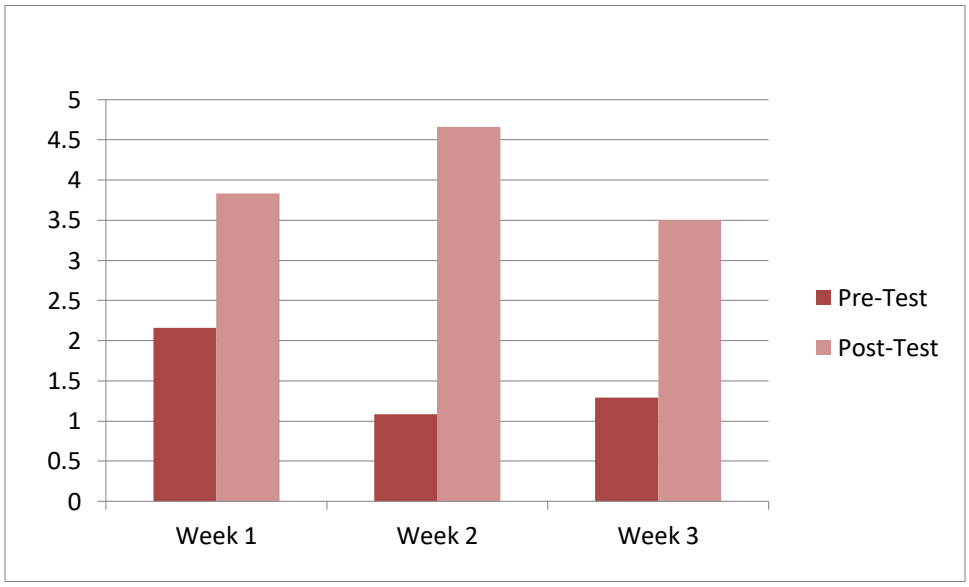

Figure 2. The pre-test and post-test scores for Study Group B are presented.

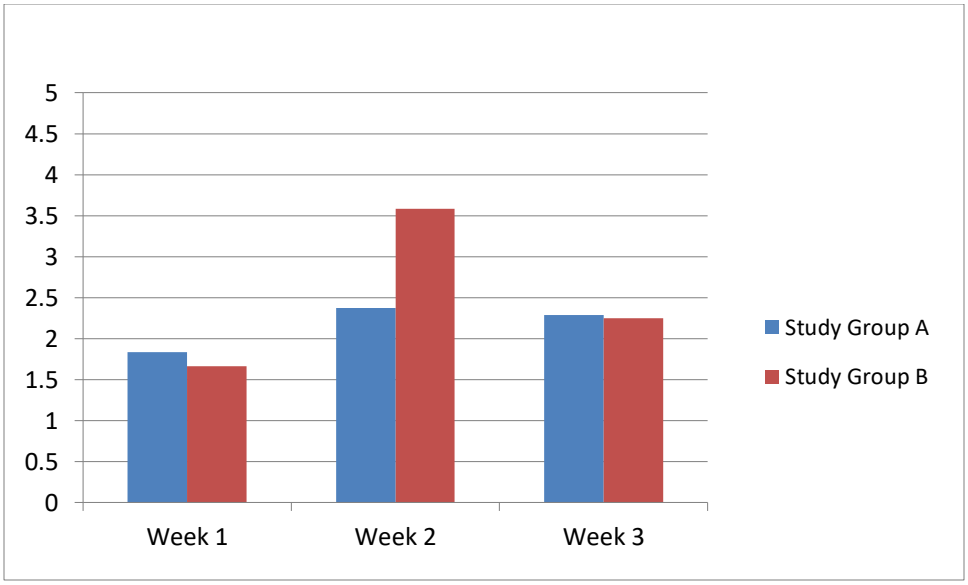

Figure 3. The average growth from pre-test to post-test is presented.

During the frog life cycle unit in the second week, Study Group B appeared to show more growth in vocabulary knowledge than Study Group A. Study Group A scored an average of 1.45 points on the pre-test, and 3.83 points on the post-test (see Figure 1). The average points gained in Study Group A was 2.37 points (see Figure 3). The mode on this post-test for Study Group A was 5 points, once again. Study Group B scored an average of 1.08 points on the pre-test and 4.66 points on the post-test (see Figure 2). The average points gained in Study Group B was 3.58 points (see Figure 3). The mode on the post-test for Study Group B in this unit was also 5 points. This means that, for this unit, all students in both groups had not initially heard most, if not all, of the words. According to the post-tests and after vocabulary instruction took place throughout the week, most of the students in Study Group A were only able to give their own translation of the definition of the vocabulary words. Most students in Study Group B could, at least, give the true definition of the vocabulary words that were taught. This week proved more growth with the students in the small-group setting as opposed to the students in the inclusive setting, with an average point gain difference of 1.21 points.

Finally, when teaching the plant life cycle unit, in the third week, Study Group A showed a slightly higher average point gain than Study Group B, but, again, there was very little difference. Study Group A scored an average of 1.79 points on the pre-test, and 4.04 points on the post-test (see Figure 1). The average points gained in Study Group A was 2.29 points (see Figure 3). The mode for Study Group A in this unit was 4 points. Study Group B scored an average of 1.29 points on the pre-test and 3.50 points on the post-test (see Figure 2). The average points gained in Study Group B was 2.21 points (see Figure 3). The mode for Study Group B in this unit was 3 points. The difference between the two groups in the average points gained was only 0.08 points for that week, again showing little difference in growth. According to the data, all students in both groups did not know most, if not all, of the vocabulary terms in the unit. Once vocabulary instruction took place, students in Study Group A could tell the true definitions of the words, but students in Study Group B could only give synonyms or their own translations of the definitions of each word.

After studying all of the mean data from each week, the total average points gained across the entire study for Study Group A was 2.16 points. The total average points gained across the entire study for Study Group B was 2.49 points (see Figure 4). Even though there was an unexpected result of Study Group B showing more growth than Study Group A, this still proves that there was very little difference in growth (.33 points) between the two groups.

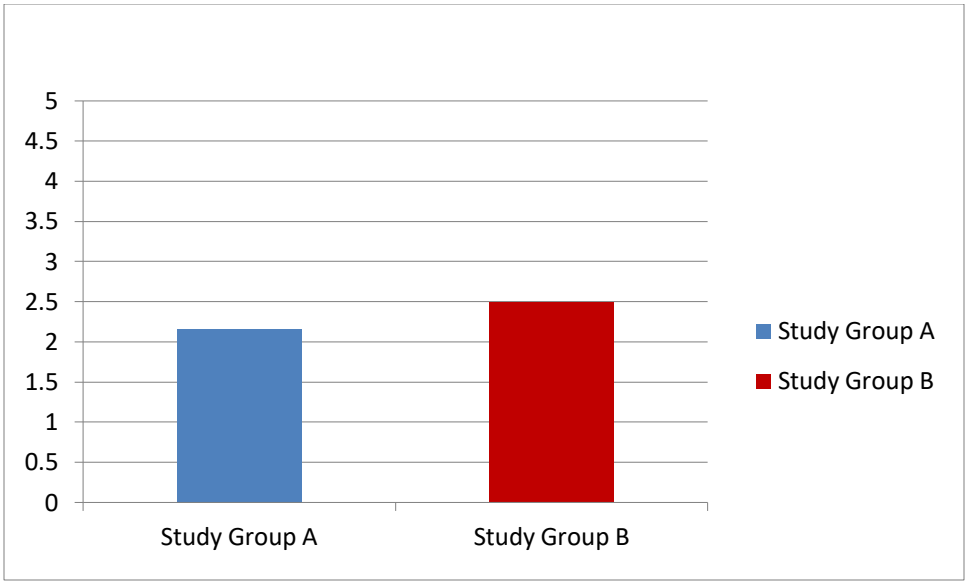

Figure 4. The total average growth across the study is presented.

Conclusions and Recommendations

Conclusions

Despite the consensus of research collected from studies of experts in the ESL field that promotes inclusion instruction, the results found from this study do not depict the favored model of inclusion instruction as a more beneficial form of instruction. The most growth in vocabulary acquisition was shown in Study Group B, or the pull-out group, that was taught separately from the mainstream classroom. Al though Study Group B showed more growth, Study Group A was not that far behind Study Group B. Based on this case alone, the inclusion model of instruction was not more beneficial than the pull-out model of instruction, and there was a negligible difference in growth in vocabulary acquisition among students when comparing the two groups.

Recommendations

Most of the research has compared push-in instruction versus pull-out instruction, and it has only considered if one model of instruction is more beneficial over the other model for *all* English language learners. Because there was no difference in growth between Study Group A

and Study Group B, a possible consideration may be that the different models of instruction for English language learners should vary across grade levels. Since the participants in both of these groups were in kindergarten and showed little difference in growth, it may be deemed appropriate that students at the primary level of education should participate in a pull-out model of instruction. Because there are several studies that indicate push-in, or inclusion, instruction is more beneficial, another consideration may be that this model of instruction is more beneficial for students in the intermediate to secondary grade levels.

Another possible consideration may be that different models of instruction for English language learners could vary depending on the student's English proficiency level as measured on a relevant standardized test. Further research may show that one method of delivery might be better for an English language learner on an emerging or entering level of English language proficiency (as determined by a test score), whereas a different method of delivery might be better for an English language learner on an intermediate or expanding level of English language proficiency (as determined by a test score).

More research should be conducted to test whether there should be a variety of instruction models for English language learners, depending on their grade level and their English language proficiency level. Future studies could dig deeper into using different models of instruction across grade levels by using this same study across multiple grade levels ranging from kindergarten through grade 12, and comparing the benefits of each model in each grade. Studies could look at how the use of more technology could be incorporated into vocabulary instruction for English language learners by using different software programs on computers and apps on iPads related to vocabulary acquisition. Perhaps, incorporating more technology into vocabulary instruction, whether it is in a pull-out or a push-in setting, may help to boost English language

learners' English language acquisition levels. Studies could also focus on the brain functions of vocabulary acquisition across English language learners in different grade levels to understand how there could be further improvement in providing the best quality of vocabulary instruction. English language learners' English language acquisition levels might quickly rise to the fluent stage.

There are several organizations that solely focus on assisting further research and providing grant money for English language learners across the country. One educational organization that provides funding for English for speakers of other languages (ESOL) education and instruction is The National Education Association, although you must be a member of the organization to apply for a grant. Other organizations, such as The State Farm Cooperation Foundation, the Carnegie Cooperation of New York, the W. K. Kellogg Foundation, and The Starbucks Foundation all provide grant money specifically related to improving ESOL education. These grant awards range from $100.00 to $1,000,000.00. This funding could be used to further research and implement more professional development on the vocabulary acquisition of English language learners. The professional development would help provide teachers with more effective strategies of vocabulary instruction, as well as focus on the most appropriate model of instruction for their English language learners, depending on their grade level and English language acquisition level.

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Action Research Study of Classical Teaching Methods vs. Active Learning Methods in the Middle School Social Studies Classroom

Brian Bass

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 #16-045.

Introduction to the Problem

There is a race in our classrooms today. It is a race to find the most effective and innovative ways to engage children who are the most challenging to teach in this country's history. Today's student expects fast results, is easily distracted, and has a dependence on technology that rivals that of food and water. The modern student is one that is difficult to reach and even harder to keep on task. Fortunately, teaching methods in foundational subjects have begun to adapt and evolve to meet the changing demands of the contemporary classroom. Learning is no longer seen as a stagnant method that has one right and wrong way. Teaching has been become a creative think-tank that incorporates technology and interactive learning to successfully achieve the goals of increasing student knowledge and higher-order thinking. While there is still an active debate between self-discovery and common core teaching, most classes in today's schools have some sort of active learning techniques being incorporated into teacher lesson plans to help students make connections within the curriculum. In the race to innovate and engage middle school students, it seems this is not the case for the social studies classroom.

Social studies scores in this country have never been lower. In 2014, 8th-grade students were given a social studies assessment by the National Assessment of Educational Progress (NAEP). This test had relatively simple, historically vital questions such as, "Why was Abraham Lincoln an important historical figure?" "What were the main disputes between the American colonies and British government that lead to the American Revolution?" "What was the impact of *Brown vs. Board of Education*?" (Rock, Heafner, O'Connor, & Passe, 2006). The results were alarming. Only 18 percent of 8th graders in this country demonstrated proficiency in history, making it the lowest proficiency level of any subject. There are a few possibilities for these underwhelming scores. Most notably, the 2002 No Child Left Behind Act, that put a high

emphasis on reading, math, and science gains in this country with neglect on history (Burroughs, Groce, & Webeck, 2005). However, one of the main factors believed to cause the steady decline in social studies knowledge in this country is the refusal of the teaching methods in this subject to adjust to a new generation of student.

The purpose of this study is to determine if more progressive, active learning techniques, such as seminar and role-playing exercises, are more effective than classical teaching methods, such as lecture and note-taking, which are most commonly used in our social studies classrooms today.

Motivation

As a future secondary (6-12) social studies/history teacher, I hope to gain insight and information from this study to help become a more effective teacher. Understanding history is one of the most rare and most important skills in our society today. Historical comprehension gives us an understanding of why our world is the way it is today, and where we could be moving in the future. This research study should help to determine which type of teaching strategy to implement in the classroom to be of most benefit to students.

Research Question

Are progressive, active learning methods more effective in the social studies classroom than classical methods?

Limitations

Limitations for this project include a relatively small sample size (80 students across four classes), as well as students ranging in ability from gifted to learning-disabled.

Review of Literature

There is a general consensus that active learning techniques have a deeper cognitive impact than passive learning styles. An example of passive learning that is the most common classical style in the social studies classroom is lecture and note-taking. This is the classic setup of a teacher at the front of the room, lecturing while students take notes on the subject matter being taught. An example of active learning would be setting up an historical role-play exercise, a computer simulation activity, or a group seminar where conversation of historical concepts and debate amongst students is encouraged.

Most research in this field deals more with student satisfaction and overall participation levels when comparing active versus passive learning. These studies typically use Likert scales to measure student satisfaction and engagement level. Montgomery, Brown, and Deery (1997) state that active learning techniques produce many advantages. They are student-centered, they help facilitate participation, they are motivational, and they bring the subject matter to life and make it relevant to the student. This type of learning asks the student to move beyond a superficial, fact-based approach to the material that may soon be forgotten once the assessment is taken. DeNeve and Heppner (1997) showed that students who were a part of an active learning class had high positive responses to their classroom experience when compared to their passive learning classroom experience. They had the same positive responses when asked to compare the experiences 8 months later. Miller and Grocchia (1997) made a direct comparison between lecture format and the active learning format. Their results also showed higher student satisfaction in the active learning format.

However, there is relatively little research on the actual *effectiveness* of active teaching methods on student scores. It seems to be well-proven that students *enjoy* classrooms with active

learning techniques being incorporated, but do they actually work? There are only a few studies where active and passive learning styles were compared using actual test scores instead of satisfaction scales. McCarthy and Anderson (2000) showed that active learning techniques lead to more knowledge gained in addition to more classroom interest by students. Their study found that active learning techniques caused students to absorb and comprehend historical concepts at a higher rate than traditional methods. The results showed a 22 percent higher average exam score for students who participated in active learning exercises. Bonwell and Eison (1991) showed similar results with students participating in historical role-play exercises having substantially higher exam scores than students involved in passive learning. The scores of those involved in the role-play were an impressive 24 percent higher, on average. Kardan (2006) found positive results in history classrooms where simulation, role-playing computer games were incorporated into the curriculum in order to teach historical concepts. However, that study did find a decrease in the amount of material that was able to be covered due to the amount of time it took to program each simulation and computer malfunction.

Data Collection and Results

Data Collection

Subjects. The subjects from this study consisted of 7th-grade social studies students at a magnet school, with 20 students as subjects in each of four classes. All four blocks received instruction over the same unit of study - the Protestant Reformation (Tennessee Social Studies Standards 7.51-7.57). The pretest scores in both control group classes were typically consistent, and there was consistency in the pretest scores of both of the experimental group classes, also.

Methodology. There were two blocks, or 40 students, who were placed in the control group. These two classes received classical methods of social studies instruction by means of

passive learning though lecture and note-taking format. The final two blocks, also 40 students total, received instruction through active learning techniques. These techniques included one role-playing exercise, one computer simulation, and one seminar discussing a relevant historical concept.

Instruments. To answer the research question, students were given a pre-test at the beginning of the first day of instruction on the Protestant Reformation (see Appendix A). At the end of the instructional unit, students were given an identical post-test. Since this experiment was meant to test results only, there were no Likert or other satisfaction scales used in this study. This research was meant to determine the effectiveness of different teaching methods through the comparison of test scores. Anecdotal observations were made of overall engagement and interest levels during each class.

Results

The first and third blocks of students were the control group. The mean score on their pre-test was 4.21 out of 15 questions. The mean score on the post-test for control group was 10.14 answers correct which showed an increase of 5.93 questions answered correctly after classical instruction.

The second and fourth blocks, the experimental group, had a pre-test score of 4.14, which is a very similar pre-test score of the control with a difference of 0.07 points. The mean score on the post-test for the experimental group was 12.43 questions answered correctly, which is an increase of 8.29 in mean score between the pre-test and the post-test.

The experimental group students, who were taught through active learning methods during parts of their unit of instruction, had a mean increase of 2.29 questions more than the control group students, who received only classical instructional methods (see Figure 1).

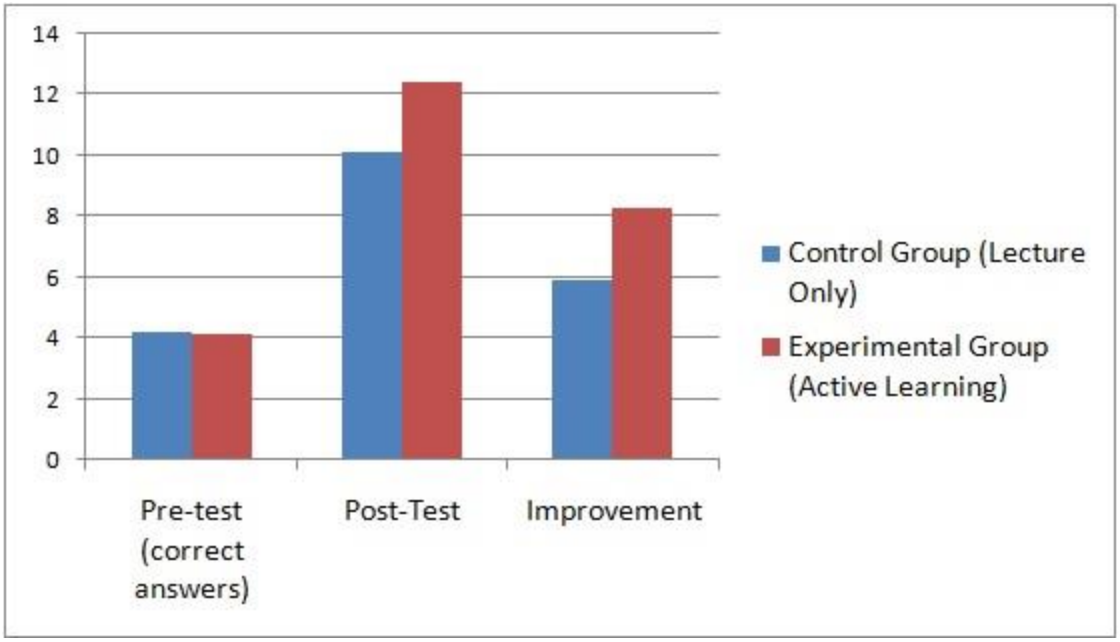

Figure 1. Experimental group scores and control group scores are compared on a 15-item pre-test and post-test.

Discussion. The results of the test support my hypothesis that active learning techniques in the middle school social studies classroom are more effective than solely classical and passive learning instruction. The gap of 2.29 questions answered correctly in favor of active learning is worth noting on a 15 question test. Given a longer timeframe for instruction, there may have been a larger gap between mean score improvements.

During observation, the experimental classes, performing active learning exercises, were much more engaged. During the vital lesson on Martin Luther and his 95 Theses, the entire event was re-enacted, from the tacking of the theses on the door in Wittenberg to the Diet of Worms. Each student had a role to play in this historical event, and the interest level and concept discussion was extremely high. Conversely, the engagement level remained low during the lecture for the control group. Though some questions were asked about Luther and his impact, the body language and overall energy level of the room was quite low for the two classes taking notes. There were complaints from the students in the control group that they were not allowed

to do the “fun stuff” that experimental group students were discussing in the hallways and at lunch.

There were a few external variables that may have played a small part in the higher scores for the experimental group on the post-test. The main variable was the time the classes met during the day. The control group met during the first and third block of the day. This put these classes at the earliest part of the morning, and prior to lunch. Morning fatigue and hunger may have caused distraction from the lesson. Though the students agreed to participate, they were unaware of the unit in which the experiment would occur. However, the students in the experimental group began talking in the hallways about their enjoyment of the role-play exercise and seminar, so the control group quickly figured out what was happening. This may have caused resentment of their note-taking lesson plan, and a decrease in effort and focus. In the future, these problems could be deterred by better spacing the times of each control group and attempting to limit conversation of class activities, for as long as possible, with middle school students.

Conclusions and Recommendations

Conclusions

Based on the results of the study, a conclusion can be made that active learning techniques are beneficial in the social studies classroom. It has been observed in previous research, and in this study, that students are more content, engaged, and involved during active learning. However, this experiment demonstrated that students gai have higher test results. This is especially true for historical concept questions. Most social studies and history teachers will proclaim they would much rather their students understand important historical concepts, or the flow of history, rather than simple facts and dates. These concepts are what help a student

understand the impact that history has on the world around them. On the post-test, the experimental group scored remarkably higher on these concept-based questions. The process of acting out an historical event and discussing it with classmates seemed to make a much deeper connection of the impact of the Protestant Reformation than simply taking notes on the subject through lecture. I have decided to incorporate active learning activities into my classroom when I begin teaching full time.

Recommendations

As previously discussed, there has been significant research and progress made in the field of active learning, with regard to the other core classes. However, these activities are very new to the social studies arena. More research needs to be performed to prove that active learning is more effective than classical teaching styles. This research does not need to look at satisfaction scales and student involvement ratings, but actual test scores and knowledge gains. If the results show gains, as in this small study, then more teachers should incorporate active learning techniques into the curriculum.

Finally, there need to be improvements and testing that help teachers understand which active learning techniques are the most effective for this discipline. There are hundreds of active learning activities from which to choose, and just as many educational technologies that contain historical simulation tools. Research studies should determine which of these techniques most appropriately fit with social studies and give teachers accurate data as to why they should implement these techniques. As we move into another generation of student, it is important to note that student dependence on technology begins at a younger age and attention spans become shorter and shorter. If the social studies classroom does not, at least, attempt to adapt to this type of student, the history competency in this country will surely continue to decline. Active

learning methods and technologies will help keep our students more engaged and help make history relevant, exciting, and fun for them, once again.

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Appendix A

Pre-test/Post-test: Protestant Reformation

Circle the correct answer:

1. **Which of these did John Wycliffe achieve?**
A. Created the Methodist Church
B. Translated the Bible from Latin to English
C. Discovered the island of Iceland
D. Brought Calvinism to England

2. **What name was given to the group of people who cried out for reform and questioned the Catholic Church's authority?**
A. Methodists
B. Secular
C. Protestants
D. Calvinists

3. **When did the Reformation begin?**
A. Early 1300's
B. Early 1400's
C. Early 1500's
D. Early 1600's

4. **Corrupt Catholic Church officials also sold offices, or leadership positions to rich people, to make money for the Church. What was this practice called?**
A .simony
B. papacy
C. excommunication
D. morality

5. Which of the following does NOT accurately describe Martin Luther?
A. he authored the 95 Theses which expressed grave concerns about the sale of indulgences
B. he was an English reformer whose body was exhumed and then burned for heresy
C. he sparked the Protestant Reformation
D. he experienced a spiritual crisis that consumed him with the fear that he could never overcome his sins

6. **Which of the following beliefs were NOT part of Luther's theology**?
A. that scripture was the sole source of authority for Christians
B. that faith alone was man's only path to salvation
C. that the bread and the wine used for the sacrament of Communion only symbolically represented the flesh and the blood of Christ
D. that the priests and the Pope had no special relationship to God

7. Which statement about the 95 theses is false?

A. the 95 Theses are largely concerned with the sale of indulgences
B. the 95 Theses were written in German
C. a thesis is a point of argument in a scholarly debate
D. the 95 Theses questioned the Pope's motives
E. the 95 Theses were widely distributed thanks to the printing press

8. Which of the following does NOT describe the Anglican Church?

A. it is the Church of England, founded in the 16th century
B. it was founded as a result of John Wycliffe's translation of the Bible into English
C. the King or Queen of England led the Anglican Church
D. it was founded soon after Henry VIII was denied an annulment by the Pope for his marriage to Catherine of Aragon.

9. **Prior to the Reformation, all Christians in Western Europe were**

A. Catholics
B. Buddhists
C. secular
D. Lutherans

10. **What caused Catholics to cry out for reform?**

A. the growth of Humanism and Free Thought
B. the immoral and dishonest behavior of many Catholic Church leaders
C. the excessive desire for riches by some Catholic Church leaders, including popes
D. all of the above

11. **What were the goals of reformers (people who wanted to purify and change the Catholic Church for the better)?**

A. They wanted bigger churches
B. To be able to worship multiple gods
C. they wanted a Church whose papacy was faithful to the teachings of Jesus Christ and the words of the Bible
D. They wanted the Bible to be written and read in Latin only

Answer the following in your own words and in <u>complete sentences:</u>

12. **When corrupt Catholic Church officials were in need of money for construction costs, they would sell indulgences. What are indulgences?**

13. **King Henry VIII closed the Catholic monasteries and took their riches, and then formed the Church of England, with himself as the leader. What was one reason he did this?**

14. **Martin Luther was a Catholic priest who broke away from the Catholic Church and started the first Protestant Church. In What ways do you see the effects of this historical event in your life today?**

15. **What did Martin Luther profess during the Diet of Worms? What was the outcome?**

A Case Study Documenting the Effects of Response to Intervention Practices on Mathematics Success in Elementary Education

Jessica Kane

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 #16-042.

Introduction

"The number of students identified as having learning disabilities has increased more than 200% since the category was established in 1977" (Bradley, Danielson, & Doolittle, 2005, p. 485). To ensure students are academically successful and to avoid misidentifying students with a learning disability, early and accurate intervention is necessary. Response to Intervention (RTI) is a process where students are given quality instruction and are assessed to determine if they are responding appropriately to the instruction. If students are not responding appropriately, then those students are considered for special education services. RTI is a three-tiered model in which the first tier is the general education program, and the second and third tiers receive small group intervention. The major components of RTI are high quality instruction, universal screening, progress monitoring, research-based intervention, and fidelity measures (Bradley, Danielson, & Doolittle, 2005).

Response to Intervention practices has been researched over the years. There have been many studies proving the success of RTI practices for literacy in elementary education. However, the research involving RTI practices and mathematics success is limited. "Students with learning disabilities tend to struggle with memory and processing of academic content. Students with LD display low levels of academic achievement in mathematics in areas such as counting, fact retrieval, and word problems" (Hord & Newton, 2014, p. 191).

Review of Literature

Several studies have researched the correlation between RTI practices and reading success. McIntosh, Graves, and Gersten (2007) conducted a study to document the success of RTI practices for English learners in an urban setting. Teachers were rated on a moderate-inference Likert scale to determine how successful their RTI practices were. Student reading outcomes

were measured using DIBELS Oral Reading Fluency assessment and the Passage Comprehension subtest of the Woodcock Reading Mastery Test-Revised. Teachers who had implemented an RTI program successfully had students who made oral reading fluency gains and their percentage of at risk students decreased. This study was limited to English learners and contained a small sample size.

A second study was conducted involving English learners in an urban setting. Orosco & Klingner (2010) used a descriptive case study method to determine how an RTI model was implemented for English learners at the primary level. Data was collected using interviews and observations to determine how well the RTI model was implemented. Students were assessed using the DIBELS assessment. The researchers found that the RTI procedures used were not appropriate for meeting the needs of the English learners. Also, the researchers found that the teachers were not well-prepared and they had limited resources. This study suggests that RTI practices are complex and more research needs to be done to implement RTI effectively.

Student outcomes of RTI frameworks have been researched throughout numerous elementary schools. Mellard, Frey, and Woods (2012) studied five elementary schools and more than 1,500 elementary students to determine the success of RTI frameworks. Each school had a varying amount of students receiving Tier 1 instruction. The students were assessed using components of DIBELS or their own state's reading achievement test. The researchers found that some schools showed substantial gains throughout the school year while others did not. Due to threats to their validity and low fidelity implementation ratings of RTI practices in the schools, the results they found are only suggestive.

Research has been conducted to find when the most optimal time is to begin intervention. A group of researchers conducted a study to determine if Tier 2 and Tier 3 interventions should

start immediately, or if intervention should wait to begin until the students have not shown appropriate response to Tier 1 instruction for 8 weeks. Over 500 first-grade students participated in this study. Several assessments using local norms were used for screening and progress monitoring. The researchers documented that the students who began intervention immediately had significantly higher reading outcome scores and that Tier 1 instruction was effective. This research was limited to only first grade students for 1 school year. Also, national norms could be significantly different than local norms (Al Otaiba et al., 2014).

The above studies were all focused on RTI practices and reading success. , Koellner, Colsman, and Risley (2011) completed a case study that focused on multidimensional assessment for RTI. A student named Danny has scored below proficient in all assessed areas, and his performance in his math classes has been below grade level. Curriculum-Based Measurements (CBM) have been used to determine students who are struggling. "When a special educator sees a lack of progress on a CBM, he or she still must determine the cause of the delay and select an effective instructional intervention" (p. 49). During this case study, Danny was taken through several diagnostic assessments to determine his misconceptions. The researchers suggest that CBM assessments help to monitor growth, but they may not help teachers know where to start with RTI instruction. The use of multidimensional assessments can help teachers determine instruction for interventions.

Another study was completed that related to screening and progress monitoring assessments for mathematics RTI. "Two types of errors, however, challenge the accuracy of procedures for classifying children into at-risk and not-at-risk groups early in their schooling. The first type of error is false positives…The second error type is false negatives" (Fuchs et al., 2007, p. 312). The researchers completed a study with first-grade students to explore different

assessments that might reduce these errors. The researchers found that a single-skill screener shows promise and a multi-skill progress monitoring tool demonstrated superiority. This study was limited to low-performing students.

Several of these studies had limitations and required further research. One major limitation was that these studies had low fidelity ratings, and teachers were unprepared to implement RTI effectively. These factors could alter the results of the study. Another major weakness is the limited research that has been reported involving RTI practices and mathematics success. Many studies involving RTI practices and mathematics success are related only to the screening and progress monitoring assessments used. Several studies have been completed involving RTI practices and reading success. It is equally important to document the effects of RTI on mathematics success.

Due to the limitations of these studies, there is a need for further research. This study will be a case study involving a small group of students in a fourth-grade classroom. The study will examine the effects of a research-based, Response to Intervention program on mathematics success. The purpose of this study is to determine if a specific Response to Intervention program will lead to higher mathematics outcomes for students throughout their elementary education (kindergarten – 5th grade).

Hypothesis

Experimental Hypothesis: Students receiving Response to Intervention services will have academic success in their mathematics abilities.

Null Hypothesis: There will be no significant relationship between response to intervention practices in elementary education and mathematics success.

Sample

The sample of students was selected from a fourth-grade classroom in an inner city environment. The majority of students at this school are African American and Hispanic. All students receive free and reduced lunch. The five selected students for this study were chosen through purposive sampling. The students were chosen for this small group for the following reasons:

- They scored below the 10th percentile on the Universal Screener (easyCBM, n.d.).
- They have shown potential for growth during classroom observations.

Instruments

"The identification of CBMs valid for use as screening assessments to identify students who may be at risk for not passing the state test without significant instructional intervention is an important contribution to the field" (Nese, Park, Alonzo, & Tindal, 2011, p. 619). The easyCBM assessment has been used as a benchmark measure to determine at-risk students, and which Tier instruction the student should receive. There has been research showing that the easyCBM assessment can provide specific insight for educators that will help students be successful on state testing.

"The use of criterion-referenced, progress-monitoring measures that can reliably capture growth over time is critical within an RTI framework" (Gillam & Justice, 2010, p. 13). Progress-monitoring assessments should be administered on a consistent basis, such as biweekly. These are used to analyze a students' progress in their intervention. "Such measures yield information to tailor instructional practices to maximize student performance or to make decisions about students' readiness to exit an intervention or enter a new tier" (p. 13). Within the easyCBM program, there are progress monitoring assessments for mathematics. These assessments were used on a weekly basis as the progress-monitoring tool.

Student response depicted in progress-monitoring data may be difficult to interpret if intervention implementation was not evaluated for the necessary frequency, recommended intensity, and specified duration (Keller-Margulis, 2012). It is important that intervention practices are implemented with the necessary components to accurately determine if the intervention is effective. Fidelity logs, which include frequency, duration, and student outcomes were used to show that this RTI program was implemented effectively.

Research Design

This study used a case study research design. "A case study research method is appropriate when the researcher wants to answer a descriptive question or an explanatory question" (Gay, Mills, & Airasian, 2012). This study is focused on how an RTI program affected mathematics success in an elementary school. A case study is appropriate because this is an explanatory question that can be researched using an in-depth case study design.

Procedures

Students involved in this study were classified as Tier 3 students. These students received 90 minutes of quality mathematics instruction in a whole group setting each day. In addition to this 90 minutes, the students involved in this study were taught supplemental lessons in a small group setting for 20 minutes each day. These lessons followed the Do The Math intervention program, which is published by Houghton Mifflin Harcourt.

The Do The Math program contains several different modules based on student needs. The Tier 3 group was given a pre-assessment to determine which module best fit their needs. The scripted lessons came from the Addition and Subtraction B Module. Each lesson contained direct instruction, guided practice, and independent practice. Due to the 20-minute time period, some lessons lasted more than one day.

At the end of each week, the students were progress-monitored using a different 16-question quiz. The quiz contained only multiple-choice questions with one correct answer. These quizzes came from the easyCBM program, and were taken on the computer. Due to district policy, easyCBM was used as the progress-monitoring tool for RTI. The specific progress-monitoring quizzes were selected because they best-aligned with what was being taught in the supplemental lessons.

Data Collection

After 6 weeks of progress monitoring, the data set was analyzed. Each student received a score based on the number of multiple-choice questions answered correctly. The student received one point if they chose the correct answer and zero points if they chose an incorrect answer. The student score was the number of questions correct out of 16. This score was converted into a percentage.

Due to the varying percentages of weekly scores for each student, the percentages were used to create a mean percentage for each week to help determine the success of the program. Figure 1 shows the mean score for each week over time. At first glance, the mean scores do not seem to provide much evidence of success or failure of this program. However, after adding the trend line, it seems that there was increasing success on the quizzes each week.

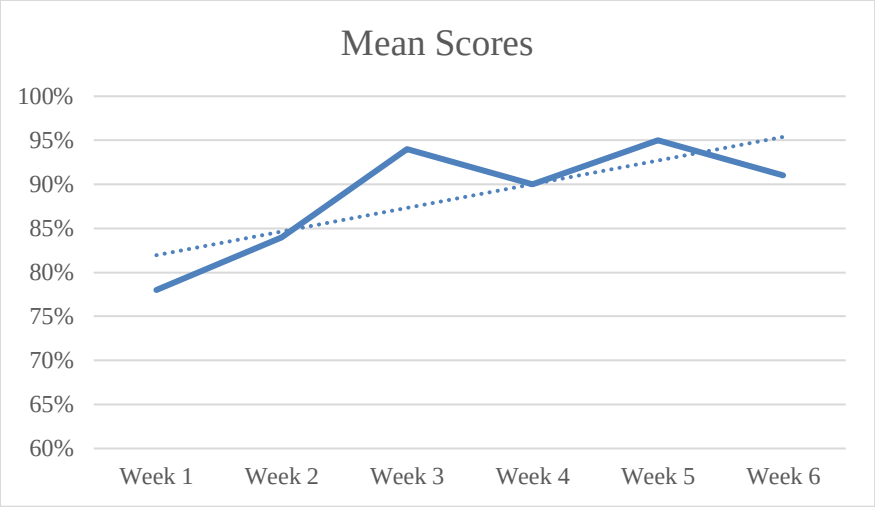

Figure 1. Student weekly quiz averages are presented.

Results

The weekly quiz percentage data does not show any significant results for success or failure of the Do The Math program. There were many ups and downs for the majority of students. After reviewing the weekly mean scores, the data does not show any strong results. However, the trend line does show a steady incline of mean scores over the weeks. This suggests that, as the program continues, there will be increasing success each week.

Conclusion

No confident conclusions that the Do The Math program is successful or not can be made from this set of data. The district is confident that the Do The Math program is a successful RTI program for our students. This particular school has used the Do The Math program for several years, and it has helped Tier 3 students with their math success.

This study may show varying results because of its limitations. This study was limited to a small group of students in fourth grade. As stated above, the Do The Math program contains several modules. This study was limited to using the Addition and Subtraction B Module. There may be varying levels of success using other modules. Also, it was limited to 6 weeks. The

mean score trend line suggests that there would be increasing success if we continued. The students will be taking the Universal Screener, again, in May. This may show that the students following the Do The Math program have increased their benchmark score, and, maybe, moved out of Tier 3.

Lastly, and this may be the most important limitation of my study, use of the easyCBM progress-monitoring quizzes is required for RTI practice. Quizzes were selected that best assessed the supplemental lessons that were taught in the small group. However, the Do The Math program incorporates progress monitoring quizzes throughout the module that specifically assess the exact material in the lessons. In years past, the students following the Do The Math program were progress-monitored using the Do The Math quizzes. Students may have shown more success each week if they had been progress-monitored using the quizzes that specifically aligned to the Do The Math lessons.

Recommendations

I recommend expanding this case study to all grade levels at the school. The timeline should be expanded to a full school year. Expanding the study to more students and the entire school year, which will include all Universal Screeners, may show more concrete results as to the success or failure of the Do The Math program. Also, expanding the study to multiple grade levels will involve using several of the Do The Math modules. The school has all of the Do The Math modules ready to use. The teachers are carefully implementing RTI practices and collecting data to determine the success of the RTI programs at the school, so there will be no extra work added for the teachers.

To ensure that new teachers are implementing the Do The Math program effectively at the school, there can be a professional development training focused on this program. Veteran

teachers, who have used this program in the past, can model how to use this program and answer any follow-up questions that the new teachers may have. Also, it would benefit the new teachers if they could observe a veteran teacher using the Do The Math program with their students. This will help the teacher see how the Do The Math program is implemented effectively and offer an authentic experience from which to learn.

Using the progress monitoring tools that are built in to the Do The Math program may show significant results. Teachers could enter the data from these progress-monitoring tools into an online database or spreadsheet to effectively monitor the data throughout the year.

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The Different Approaches to Teaching English as a Second Language in Japan and the U.S. and How this Affects the Student's English Skills

Asami Nakano

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The University of Tennessee at Chattanooga

The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project #16-049.

Introduction to the Problem

The population of English as a second language (ESL) learners has increased significantly in higher education in the United States today. The U.S. received the highest number of international students in its history in 2013-2014, welcoming 886,052 undergraduate and graduate international students into its colleges and universities (Ross, 2015). That represents a 14% increase over the previous year, nearly 50% more than in 2010, and 85% more than in 2005 (Jordan, 2015).

When speaking to non-native English educators in Japan, one thing becomes crystal clear: English education in Japan is not working. While English classes are mandatory in Japanese schools, the percentage of students who emerge with actual English abilities is surprisingly low. Students in China, Korea, and Japan are competing to see who can produce students with the best English, and Japan seems to be trailing far behind in third place (Miller, 2014).

With the Olympic Games coming up in 2020, the Japanese government has proposed changes to increase the level of English in their students. These include starting introductory English classes in 3rd grade in elementary schools and making the subject compulsory from the 5th grade (Miller, 2014). English used to be a compulsory subject from 7th grade onward. I was curious to learn the difference between teaching ESL in the U.S. and in Japan. I would also like to study the structural changes that Japanese teachers have to make in teaching to teach English more effectively.

Review of Literature

Iwai (2008) conducted a similar study, however, there were only two samples in the study and it presented no statistical data. These limitations were acknowledged as factors showing that Iwai's result was not accurate. For this research, more data will be added to the previous

research to show a more accurate representation. This research will help us to improve the methods of teaching English in Japan as a second language. In previous studies, there were several reasons for including the topic of second-language (L2) reading acquisition in a volume on reading development. There was a question about the difference between first-language (L1) and L2 reading, and what that might imply for the acquisition of reading skills, in general. "By examining the patterns of transfer from one language to another, we may uncover aspects of reading development that are difficult to detect and describe when studied in the context of a single language" (Brown & Haynes, 1985).

Data Collection and Results

Hypothesis

Experimental hypothesis. There will be a significant effect of English language immersion training on Japanese college students.

Null hypothesis. There were be no significant improvement of English language among Japanese college students.

Sample

Participants include three Japanese students who currently study ESL and undergraduate classes at The University of Tennessee at Chattanooga. Of these students, one is male and two are female, and their age ranges from 20 to 23. One of them is taking undergraduate classes with American students and the others are taking ESL classes with students who are non-native speakers. The class size of ESL classes is six to eight students and they have six different levels by their English ability. Students attend level 3 and level 6 classes. Two students studied English at the university level in Japan. Most Japanese universities require students to take English classes.

Instruments

I asked the Japanese students to complete a survey on English learning experiences (see Appendix A). Then I interviewed them individually and asked them about their English learning experience in Japan, and ESL or undergraduate classes at the university in the U.S. (see Appendix B).

Research Design

As the researcher in the study, I used a qualitative collective instrumental case study design. I gave the Japanese students a survey to complete, interviewed them, and observed their ESL classes. The interview and survey results were used to evaluate their English skills proficiency, and the cause for improvement or change. By observing the ESL classes, the researcher could examine the different approaches to teaching ESL in U.S. classrooms.

Procedures

The researcher will find out how they learnt English as a second language in the U.S., and will examine how their English skills improved. Also, the researcher would be looking at what kinds of skills improved the most among listening, speaking, reading, and writing. The researcher would use survey questions to examine their environmental change from Japan to the U.S. The researcher will then interview the students individually to find out how their study style changed after taking ESL and undergraduate classes in the U.S. By observing ESL classes, the researcher will define how the teaching style was different from English classrooms in Japan.

Data Collection

First, I asked the Japanese students to complete the survey (see Appendix A) and attend the interview with the survey answers. I interviewed each student in my office individually. The survey took, approximately, 20 minutes for the students to complete, and the interview took,

approximately, 30-40 minutes for each student. I also visited their ESL classes and observed them to see the differences with an English class in Japan.

Methodology

I communicated with the students regularly to understand their personality better. I asked them to complete the survey first so that students would have some idea about what I was going to ask in the interview. I interviewed each student individually in Japanese so that they could express themselves better than using English and share their honest feelings. I asked them six interview questions to find the differences in their class structure, classmates, environment, and the way of studying English in the U.S. and Japan.

Results

It is clear that the students' time spent listening, reading, and speaking English doubled while they were in the U.S. The environment is much more conducive for learning English since they have to use English in everyday situations. English class hours did not change much for Student A and Student B, but the total number of hours for using English increased dramatically. The usage of English is 21 hours per week for both Student A and student B, and 15 hours for student C in the U.S., while they had no change in English usage hours in Japan. In the U.S., the hours of using English every day more than doubled for each student.

Based on the interview, I found that the students' motivation changed significantly after coming to the U.S. The students were motivated and had a clear idea of what they wanted to accomplish with their English skills. All the students felt that it was necessary to use English. The environment of living in the U.S. and communicating with native English speakers was very helpful to learn the language. The students could practice the grammar they learned in ESL class immediately in their daily life. It was a big difference compared to learning English only in the

classroom in Japan. Students did not have much opportunity to use English outside of the classroom in their daily life. These Japanese students also mentioned that they liked the small size of their ESL class. There were about six to eight students in one class so it is very easy to ask questions and interact. Instead, class size at Japanese universities is, approximately, 40 students. The interviewed students also mentioned how differently other students reacted in their ESL class. Many of their classmates asked many questions in the class, which is different from classes in Japan, where students listen to the lecture of teachers most of the time and do not ask many questions. They felt it was easier to ask questions in ESL class. Also, in the ESL class, there were many discussions. Students had to form their opinions and express their feelings, which helped them to think and learn in English. There were many similarities in students' responses. It was not clear which skills, between listening, speaking, writing, and reading improved the most after studying in the U.S. since each student felt differently.

Conclusions and Recommendations

Conclusions

It is clear that these Japanese students' English skills improved in the U.S. They felt more comfortable communicating in English, and some of them think their communication skills also improved. I think there are three main reasons for their improvement. First, their motivations are very high in the U.S. In Japan, most Japanese students do not have a clear purpose of learning English except getting good grades in exams. Here, in the ESL class, students from all over the world come to learn English. Students can learn English with classmates who are motivated, and they have the same goals.

Second, there are plenty of opportunities to use English in daily situations in the U.S. In Japan, most of the students do not have much opportunity to use English outside of the

classroom. They use English every day to communicate with people in the U.S. This experience gave students an opportunity to practice and learn effectively.

The third point is their class structure. Their ESL classes were relatively smaller than their classes in Japan and welcomed asking questions. The ESL teachers discussed the topics with students and each student had to have their own opinion. Most of students were happy with their classmates and they felt that their teachers were supportive. Students can learn the best when they are comfortable and are not afraid to ask questions or make mistakes.

Recommendations

English teachers in Japan can learn from the result that small classrooms work better for learning a language. It is more effective to learn a language with students with similar language levels and similar goals. Discussions help to improve a student's communication. It is important to create an atmosphere in which students are comfortable to ask questions in the class.

Teachers can motivate students by creating opportunities for students to use English in the class and outside of the class. It helps if teachers create the situation in which students have to communicate in English. For example, teachers can invite native English speakers to the class or set up video meetings with native speakers. Since students have electronic devices now, they can communicate with native English speakers easily via online if it is difficult to meet native speakers face-to-face. For example, teachers can use Skype, Facebook, and other websites to create those situations. Students learn the best when they are motivated to communicate using English.

My original idea was to compare the placement test scores before and after the ESL class, but there was not enough time, due to the course timeline, so I decided to do the survey and

interview. It would be more effective to compare their text score with their English language abilities.

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Appendix A

Survey Questions

- How many hours of the day do you use English? (in Japan, in U.S.)
- How often do you listen to English a day? (in Japan, in U.S.)
- How often do you speak English a day? (in Japan, in U.S.)
- How often do you read English a day? (in Japan, in U.S.)
- How often do you write English a day? (in Japan, in U.S.)
- Do you watch TV or movies in English, how often? (in Japan, in U.S.)
- Do you listen to American music (English songs)? how often? (in Japan, in U.S.)
- How many English classes are you taking a day (How many hours)? (in Japan, in U.S.)
- Do you have a chance to speak English outside of the classroom, if yes how much for a week? (in Japan, in U.S.)
- What kind of devices (Tools) do you use to study English? (in Japan, in U.S.)
- How do you see your communication skill? (Good, very good, not so good and so on) (in Japan, in U.S.)
- What is your goal for learning English? (in Japan, in U.S.)

Appendix B

Interview Questions

- What was the most interesting class at ESL or class at UTC so far?
- Which English skills do you think improved the most? (Speaking, listening, reading and writing) Why?
- What kind of study styles changed since you came to the US or did it not change?
- What kind of class structure is different that of Japanese English class?
- How are your teachers and your classmates?
- Could you tell me anything about your English class in Japan and in the US?