

Teaching and Research Proposal: Focus and Rationale

I am interested in the current research of single gender classrooms. More specifically, how this concept affects boys in their learning and social development. I plan on developing an “empirical” study on the effects of single gender education in the middle school environment. More specifically, I want to look at the effects on boys and how they learn in a single sex environment compared to a co-educational. This will be a “nomothetic” study on students in general, taking into consideration individual students learning in different ways. I know that there will be “independent variables” including, how many years have the students been in a single gender classroom and the individual social skills of the students and the “dependent variable” will be their amount of disciplinary referrals in a year and the student's specific grade in that class. I think a survey of the boys as well as the parents would gather “qualitative” data on why they like the single gender school. Research has proven that boys' learning styles are different than that of girls, therefore different teaching methods are needed to teach each gender. I have a hunch that boys will be more successful in classes they traditionally struggle in. For example language arts (a class in which traditionally boys struggle), single-gender classes would be more appealing to boys if more male oriented characters and plots were incorporated within the literature they study.

I teach at an all boys' middle school that has an all girls' middle school in a different part of the campus. I have been working there for seven years and have often wondered do middle school boys have a easier time learning in a single gender class or a co-educational class. In all of our handbooks and during our “open houses” the school describes itself as “a place for boys”, which has always made me think why is this better than a co-educational school? After the students finish their middle school years they are mixed into co-educational classes at the upper school. I have often wondered if this is the best way to teach them or if they have a better chance of learning with boys and girls in the classroom. I have noticed that we receive students who have been in single sex classes with us since 6th grade and others are first or second year students who have not experienced being in an all boys' school. The practical significance of this study is to qualify the importance of single sex education in the middle school classroom. This study will help schools as well as parents learn the significance of single gender learning environments.

Introduction

As a faculty member in a gender specific middle school, I am interested in the current research of single gender classrooms. More specifically, how this concept effects boys in their learning and social development. I am hopeful that the research I find will support the idea that boys, in fact, are more successful in a single gender classroom than in a co-ed environment. I would like, also, to learn more effective teaching practices for an all boys' middle school classroom. This research will also uncover the positive and negative ways in which both boys and girls learn.

Perspectives

Throughout my research I discovered a variety of different perspectives on the topic of single gender classrooms. Repeatedly, research was offered to support a positive effect on girls in a single gender environment as well as the effect on boys. My research introduced viewpoints that offered different reasons for student success in a single gender classroom other than students' sex; specifically family income, class size, supportive parents, race, etc. (Cable and Spardlin, 2008). Specific articles have shown that success is not guaranteed in single gender classes. "Research in brain development as well as test results show that the single-gender model is most likely to improve academic achievement for elementary students, he said. By the time they hit middle or high school, he said, it may be too late to change bad habits and academic acumen regardless of the type of school"(Rujumba, 2010). Several articles introduced the prospective from a public school point of view of whether single gender classes should be implemented (Bradley, 2010), while this differentiates from my private school, single gender teaching background. Several new ideas were discovered in my research as to the variance between boys and girls learning styles. For instance, boys learn more effectively when they can move around the classroom and respond positively to team competitions in academics (Duncan and Schmidt, 2010). One of my biggest surprises was an article from the students prospective as to what they thought of single gender classes. A few of the students thought there was more "bullying" in the all boy classes than in the coed classes (Spielhagen, 2010). This statement is in contrast with my belief which support the idea that there is more "bullying" within coed classes. A viewpoint that did not support single-gender classrooms was discovered. Emily Dieker wrote her thesis on single-gender classes, she argued that additional complications arise beyond just gender segregation including socio-economic and race factors (Dieker, 2009).

Pedagogy

Throughout this project I have been introduced to the researcher Leonard Sax, founder and executive director of the National Association for Single-Sex Public Education. Sax's studies show that there are a variety of differences between boys and girls and the way they learn. He lists such things as the structure of the brain differs between boys and girls, the brain is wired differently, girls have a more sensitive sense of hearing than boys and females and males respond to stress differently. Because of this research boys learn more effectively when they are engaged in a variety of activities in the classroom (Cable and Spradlin, 2008). Katherine Bradley demonstrates multiple examples of classroom activities such as competitions, physical activities and choice activities that engage boys in learning. Her study includes a quote from a math teacher who “fools all those rambunctious little boys into thinking they are supposed to be having fun instead of learning” (Bradley, 2010). Another example of a technique to use in an all boys class, according is to encourage boys to use their hands as well as their minds. A successful activity would be tossing an object to a student when the teacher calls on him for an answer and have that student toss the object back after answering the question (Banchero, 2006). This activity keeps the boys alert and eager to participate. In my research I discovered multiple educational practices that support the idea of single-gender education. These options start with small single-gender groups within a coeducational class. The next option is public schools that offer single-gender classes as well as coeducational classes, private schools that offer single-gender classes and public schools that offer only coeducational classes. The final option is single-gender schools that only have single-sex classes. In other words there is no one true fit for all students.

Assessment

My research has shown an assortment of assessment methods used by teachers and scholars. One of the key assessments was the idea of offering multiple formats to students. This is done by offering public school parents and students both single-gender classes and coeducational classes to choose from. This allowed administrators to evaluate the student academic performance as well as their social behavior in both types of environments. Another assessment method discovered was reviewing the learning differences of boys and girls. This was measured through scientific brain development studies. The results of standardized testing and differentiated success rates of single-gender schools/classes was the final method used. Researchers use standardized testing to show the differences in gender education and used this information to rationalize single-gender schools. Figure 1 of “*Learning Separately: The Case for Single-Sex Schools*”, by Peter Meyer, 2008, supports the theory that “ the prevailing system

of education (overwhelmingly mixed-sex) is failing boys as well as girls, if in different ways, regardless of resource allocations.” Daveen Rae Kurutz interviewed Derrick Lopez, an assistant superintendent for secondary schools. Mr. Lopez summarized that the work he was involved in showed that students were more focused and teachers were embracing the idea of single-gender classes (Kurutz, 2010). Amy Viets conducted research that assessed four classes, one boys english, one girls english, one boys math and one girls math class. These four classes' MAP scores were then compared to coed classrooms MAP scores. This research showed little difference in state mandated scores between coed classes and single-gender classes. However, she recommends that single-gender classes be used to build self-confidence, reduce discipline issues and as another form of instructional process (Viets, 2009). A South Carolina school reports that their disciplinary issues have decreased from .36 referrals per student (2007-2008) to .06 referrals per student (2008-2009) (Rex and Chadwell, 2009).

Conclusion

Throughout my research I have learned a variety of ways to look at the question “Is single-gender classrooms better for the middle school boy?”. The majority of the findings support the idea that single-gender classrooms offer a more successful environment for both boys and girls. I have learned that these environments do not work for every student and that there are many other forces that lead to student learning and student achievement. The work of Vincent Anfara and Steven Mertens in *Do Single-Sex Classes and Schools Make a Difference?*, directed my focus on issues such as student self-esteem, student attitude towards academic subject matter and student preference towards single-gender or coeducational classes as additional deciding factors.

An important aspect in successful single-gender classes is how well the teacher is trained for this class setting. Research has shown that boys and girls learn in different ways, how to implement these teaching methods into the classroom is important for an optimal single-gender environment. One of the most dramatic teaching ideas was found in Leonard Sax's article *Boys in Middle School and High School*. Sax suggests bringing video games into the classroom to help motivate boys to learn. An idea that may be worth trying.

Annotations

Anfara, V. A., & Mertens, S. B. (2008). Do Single-Sex Classes and Schools Make a Difference? *Middle School Journal*, 40(2), 52-59. Retrieved August 1, 2010, from ProQuest.

An article written in *Middle School Journal* asks the question, do single-sex classes and schools make a difference? Topics from proponents and critics speak their minds, student culture, academic climate about single-sex classes are covered. The piece goes on to talk about the attitudinal effects and academic issues in that type of environment. Vincent Anfara comes to the conclusion that the benefits still remain unclear and researchers must continue to find more facts to help schools move on from what they consider the “norm”(coeducational).

Banchero, S. (2006, November 5). Boys in One Class: Girls in the Other. *Knight Ridder Tribune Business News*, p. 1. Retrieved August 1, 2010, from ProQuest (1175394921).

Stephanie Banchero discusses the learning differences between boys and girls and how having them in single-gender classes will help. She goes into what techniques are better used in the classroom that help boys learn as well as which ones benefit girls. Interviews and quotes from both boy and girl students are used to support single-gender classes. Teachers as well as administrators also explain the benefits of having all boys or all girls in a class.

Bradley, K. (n.d.). *Controversy and Debate Surround the Implementation of Single-Gender Education*. Retrieved August 1, 2010, from http://www.education.com/reference/article/Ref_Controversy_Debate/?page=2

The article talks about the debate of single-sex classrooms and schools in the public school environment. The author supports single-gender schools because she was a product of a single-gender school. She still thinks that more research must be done before any true conclusion can be found. Examples of schools she visited are included as well as her opinion that suitable teachers are needed to have a successful environment.

Bradley, K. (n.d.). *The Single-Gender Classroom*. Retrieved August 1, 2010, from http://www.education.com/reference/article/Ref_Single_Classroom/

The article by Katherine Bradley, a doctoral candidate at Mercer University, is an informational piece favoring the positive nature of single-gender classrooms. She is trying to persuade parents to have their children attend these types of classes. An all boys classroom and the activities in it are given as an example demonstrating how productive the boys are in the single-gender environment. The importance of a well trained teacher is stressed in the success of this type of classroom. She ends the article by asking parents to read, experience, question and investigate before they make their decision.

Bradley, K. (n.d.). *Single Gender Education - Why?*. Retrieved August 1, 2010, from http://www.education.com/reference/article/Ref_Single_Gender/

Katherine Bradley discusses the relationship between No Child Left Behind and the implementation of single-gender classes/schools. The first main topic is under the category “What does 'recent' research indicate?” She talks about how attendance, discipline, self-esteem and career aspiration are all influenced by single-gender classes. The article also goes into groups that believe these classes are a step back for women and heighten stereotypes. The last portion reflects on how more research is needed before a definitive conclusion can be stated and public schools must take part in order for the research to be more accurate.

Cable, K. E., & Spradlin, T. E. (2008). *Single-Sex Education in the 21st Century*. *Education Policy Brief*, 6(9). Retrieved August 1, 2010, from <http://www.eric.ed.gov/PDFS/ED503856.pdf>

Single-Sex Education in the 21st Century is an article written in the Center for Evaluation and Education Policy written by Kelly Cable and Terry Spradlin. This source has a variety of topics covered that include the history of single-sex education, the legality of it, arguments in favor of it, conflicting findings: evaluating outcomes and the other side and prevailing issues and questions. They bring up the state regulations for schools that have both single-gender and coeducational classes. Cable and Spradlin also talk about Leonard Sax and the National Association for Single-Sex Public Education and his arguments. This article is not one sided, they bring up the arguments opposed to single-sex education as well as the questions that still remain out there. They end the article with their own conclusions and recommendations.

Dieker, E. (2009). *Gendered Classrooms: Exploring the Legal & Social Acceptance of Single-Sex Education through a Gender, Race, and Class Analysis*. Thesis, UMI, Washington, D.C. Retrieved August 1, 2010, from ProQuest (1463927).

This thesis includes the topics: the basics of single-sex education including what the controversy is including opposing arguments and the question “do single-sex schools work”? Her thesis also includes the role of gender, race and class and their role in education. The role of the parents having the right to chose whether they want to enroll their child in what type of class/school. Dieker also brings up No Child Left Behind and the question can race and or gender be separate but equal?

Duncan, A., & Schmidt, a. (n.d.). *Single-Sex Classrooms – A Great Alternative for Many Young Students*. Retrieved August 1, 2010, from http://www.education.com/reference/article/Ref_Exploring/

This article is written by two teachers who both think single-sex classes can close the gap during certain periods of development. The article includes a list of the different learning styles of boys and girls and a list of reasons why single-sex classrooms help students. They go into why the boys and girls classrooms both had great results. The girls become more risk takers as well as having them step up to be leaders. The boys became more engaged in active lessons and become interested in reading books that have a strong male theme and characters.

Herr, K., & Arms, E. (2004). Accountability and Single-Sex Schooling: A Collision of Reform Agendas. *American Educational Research Journal*, 41(3), 527-556. Retrieved August 18, 2010, from ProQuest (775097931).

This article is a study of the Single Sex Academy the largest public experiment of single-sex schooling in the country. The article includes sections on how the boys and girls classes performed separately. Interviews with teachers and students are used in the article as well as how each classroom was organized. The legal aspects of Title IX and the No Child Left Behind Act were addressed. The author also explains the difficulty the school had with meeting the goals of standardized testing as well as funding. In this school of low income students of color, the boys' classes were filled with more disciplinary issues than that of the girls classes or coeducational classrooms.

Kurutz, D. R. (2010, May 3). Administrators: Single-Gender Classes Have Boosted Test Scores. *McClatchy - Tribune Business News*. Retrieved August 1, 2010, from ProQuest (2023714441).

Administrators: Single-Gender Classes Have Boosted Test Scores is an article by Daveen Rae Kurutz that talks about the success of a prep school in Pennsylvania. The majority of this article is students and administrators giving their quotes on why the school is doing well. She brings up both the rise of tests scores as well as the drop in disciplinary issues. The students interviewed showed their enthusiasm for the single-gender classes and all agreed that they think these classes will make them better students.

Meyer, P. (2008). Learning Separately: The Case for Single-Sex Schools. *Education Next*, 8(1). Retrieved August 1, 2010, from <http://educationnext.org/learning-separately/>

Learning Separately: The Case for Single-Gender Schools is a pro single gender article. Peter Meyer discusses a variety of topics of why single-gender classes work. He brings up the legal aspect including Title IX. Meyer uses specific examples in his article including sections on private schools in which he talks about the Emma Willard and Roxbury Latin schools and how single-gender classes has worked for them. Meyer also talks about how the Young Women's Leadership School and Brighter Choice Charter School have implemented single-gender schools into their public education and the success it has brought. He gives both standardized tests results as well as student and teacher opinions on how well the single-gender schools/classes are working.

Rex, J., & Chadwell, D. (2009). Single-Gender Classrooms. *The School Administrator*, 66(8), 28-33. Retrieved August 1, 2010, from <http://www.aasa.org/SchoolAdministratorArticle.aspx?id=5638>

This article is by the state superintendent of education of South Carolina and the coordinator of single-gender programs for the South Carolina Department of Education. They report on the legal status of single-gender classes, the use of multiple formats, including the use of coeducational and single-gender environments at the same school, the partnership between the schools and the department of education, early results of single-gender classes and parent satisfaction. Both of these men are in favor of using single-gender classes in public schools.

Rujumba, K. (2010, July 19). Many Question Value of Single-Gender Schools. *McClatchy - Tribune Business News*. Retrieved August 1, 2010, from ProQuest (2083557651).

This article includes more points of people against single-gender classes. These points include the legal factor of having public schools “segregated”. The author also includes the point that many people are against these classrooms because there is no hard proof that single-gender classes produce better results. There is some information from teachers who work with single-gender classes on how they believe it to be very successful.

Sax, L. (n.d.). *Boys in Middle School and High School*. Retrieved August 1, 2010, from http://www.education.com/reference/article/Ref_Boys_Middle_School/

Leonard Sax talks specifically about how boys learn at the middle and high school levels. He discusses difficulties boys have negotiating the process to adulthood. His big argument is that adolescent boys do not believe real-world accomplishment is more important than accomplishment in the virtual world. He goes on to talk about the importance of video games to boys. The article also shows how boys are more interested in their social status, what others think of them and their grades are not part of the status.

Seitz, I. (2006). The Minds of Boys: Saving Our Sons From Falling Behind in School and Life. *Journal of Adolescent & Adult Literacy*, 49(7), 639-640. Retrieved August 18, 2010, from ProQuest (1061012101).

The author explains the importance of research conducted by Michael Gurian on brain functions of boys. She uses this information to help explain why classroom teachers deal with discipline issues that predominantly involve boys, as well as frequently poor academic results. She also reviews the book *Minds of Boys* by Gurian, which contains the topic of “the success and particular challenges facing single-gender classes”.

Spielhagen, F. (n.d.). *Middle School Boys and Girls Discuss Single-Sex Education*. Retrieved August 1, 2010, from http://www.education.com/reference/article/Ref_Middle_School_Boys/

Dr. Spielhagen writes this article about the increasing popularity of single-sex classes. She discusses the benefits of this type of environment. The majority of this piece contains interviews with children who took part in single-sex classes. The topics that Dr. Spielhagen covers includes student's reporting they feel more challenged and successful in single-gender classes, girls were more likely to express a feeling of emotional safety and some boys reported that aggression was a problem in single-sex classes. She concluded that satisfaction varied with age and gender of the student.

Viets, A. L. (2009). *Same Gender Classrooms and Student Achievement*. (Doctoral dissertation, UMI, Ann Arbor. 2009). Retrieved August 1, 2010, from ProQuest (3372345).

The author breaks down her dissertation to a few areas that include: purpose of the study, what data she collected and how she analyzed it. Methods of research included the questions concerning which way state mandated tests scores differ from single-gender and coeducational and what was the difference in test score among boys who were in single-gender and those in coeducational. Interviews with students, teachers and administrators who were part of same gender classrooms were reported. The conclusion was made that there is very little difference in state test scores between coeducational and single-gender classes.

Research Design

Research Question

I am interested in the current research of single gender classrooms. More specifically, how does this concept effect boys in their learning and social development?

Procedure

My first step will be to seek out published reports of qualitative data collected through written documents. These documents will represent comparative studies between coeducational and single-gender classrooms/schools within the middle school environment. These documents will be researched by using educational/scholarly journals as well as professional studies that collect and analyze this data. After conducting this basic research, I will contact the administrators at Whittemore Park Middle School and Kingtree Junior High School both in South Carolina. These schools offered single-gender classes for 7th grade students for the first time in 2008/2009. A detailed list of questions will be asked including;

- * What specific curriculum was followed?
- * What teaching methods were used in the boys' classroom?
- * Was the faculty trained to meet the needs of each specific gender's learning style?
- * Was there any noticeable change in classroom discipline?
- * Was there any academic or social differences between the coed classes compared to the single-gender?

Learning through my Literature Review, I have discovered the best way to understand the effects of this environment is to communicate directly with a school system that has experimented with this learning concept. After collecting the data from the schools I will than contact the administrators to set up a personal school visit. At this visit I will observe 8th grade boys in single-sex classes as well as 8th graders in coeducational classes and discuss with the classroom teachers and students the pros and cons of each environment. I have chosen these schools because they provide both single-sex classes and coeducational classes in the same building. All other deciding factors remain the same including socio-economic status. Throughout this investigation the majority of observations has concluded that more research is needed to verify the fact that one environment will succeed over the other. My Literature

Review also brought to light the many different factors that contribute to student learning in a single-gender classroom beside their sex. These aspects include race, socio-economic status, private/public school environment and properly trained faculty. I plan to continue my research to include the most current studies of this teaching philosophy.

Assessments

My primary assessment tool will involve the responses to the questionnaire submitted to the administration of Whittemore Park Middle School and Kingstree Junior High School in South Carolina as well as my own observations of the classes. The importance of this questionnaire is the response from a school that specifically placed single-gender classrooms into their curriculum. I feel the day to day experiences of a school that used both single-gender classes as well as coeducational is more valuable than scholarly opinions. Working at a single-gender school does not give me an opportunity to assess my own students in both coeducational and single-gender classes. This limits my assessment to using qualitative data including written documents as well as interviews with faculty and administration who have experienced their students in both environments. Many of the reports I have read included quantitative data about test scores and discipline referrals. I will not be able to address this data from my own experience but will rely on the outcome of the questionnaire.

Design Rationale

I believe this research technique works well because I am measuring an entire grade level that offers both types of learning environment (coeducational and single-gender) within two different schools. Working at a single-gender school and knowing how boys react to their social and academic climate within my classroom, gives me a limited perspective. This research plan allows me to understand how students of the same grade level, who were previously in coeducational classes, react socially and academically to their new single-gender classes. The plan to investigate the responses from schools who have experienced the same students in both single-gender as well as coeducational classes is much more effective than reading opinions of educators who have not offered specific experiences in their published works.

Revision Summary

After receiving the comments from Dr. Wong regarding my Teaching and Research Proposal I applied the following changes to my final project. In the Focus and Rationale report, Dr. Wong suggested I change the term “overall performance” to something more specific. I changed my dependant variable from “overall performance” to the more specific number of disciplinary referrals and the specific grade the student receives in that class. Dr. Wong suggested that I make some hunches as to what the results of my study might be and if there might be specific classes where I would see a difference. Therefore, I have a hunch that boys will be more successful in classes they traditionally struggle in. For example language arts (a class in which rationally boys struggle), single-gender classes would be more appealing to boys if more male oriented characters and plots were incorporated within the literature they study.

The first suggestion Dr. Wong gave me was to make sure that I used APA format for all my citations in the body of my work. I corrected those items by using the author's last name and the year the work was published. Next his feedback suggested that I describe a variety of ways in which single-gender teaching is used. A variety of teaching situations were added into my research including having single-gender small groups in a coeducational class. Also schools that include both coeducational classes and single-gender classes in the same grade level were added. There are also single-gender schools that only offer single-sex classes as well as coeducational schools that only have coeducational classes (the traditional way). I than described how these classes were taught, boys' classes used different techniques, the boys taking a more hands on active role in learning. In the assessment section I described the tools and methods researchers used in their studies. These methods included the results of standardized tests, the amount of disciplinary referrals of students and the specific grades students earned in their coeducational as well as the single-gender classes. I was encouraged to find more sources from professional journals. I searched and found two articles from professional journals. The first was from the *Journal of Adolescent & Adult Literacy*, in which I found an article called “The Minds of Boys: Saving Our Sons From Falling Behind in School and Life”. The second was from the *American Educational Research Journal*, entitled “Accountability and Single-Sex Schooling: A Collision of Reform Agendas”.

In the Research Design it was recommended that I observe the classes I described in my plan through personal observation. I decided to visit the schools to which I sent my surveys. I will observe both the coeducational 8th classes as well as the single-gender 8th grade boys. This will give me a better understanding of the differences in learning, behavior and teaching methods of the two environments. I will also speak to students, teachers, administrators and parents about their experiences with both learning environments.