

4-1-2005

Gender Bias in Middle School Classrooms

Jessica Baker
Trinity College

Follow this and additional works at: <http://digitalrepository.trincoll.edu/theses>

Recommended Citation

Baker, Jessica, "Gender Bias in Middle School Classrooms". Senior Theses, Trinity College, Hartford, CT 2005.
Trinity College Digital Repository, <http://digitalrepository.trincoll.edu/theses/67>

Gender Bias in Middle School Classrooms

Research Question

Is gender bias still occurring in middle school classrooms? If so, what is the cause of the gender bias and how can it be prevented?

Significance

The importance of this question is to see if gender bias is occurring in middle school classrooms. If it is still occurring, the next step is to find out what is causing the gender bias and decide how to eliminate it. This will ensure gender equity within classrooms.

The idea for this project was sparked from a past project done on gender bias in elementary school classrooms. The idea was to see if gender bias continued in classrooms at higher levels of education. In this project, first hand research was conducted in sixth grade classroom of a male teacher in Hartford Magnet Middle School. Observations were conducted about three times a week for two hour time segments.

The guidelines for the observations were taken from *Another Set of Eyes*, a teacher manual for observing classrooms. From this, certain tactics for observing the classroom were used. Among these was a seating chart, which allows the observer to have a clear visual of how the room was set up. There was also a verbal flow chart, which demonstrates where the teacher focuses his attention in the classroom and whether or not he focuses on only one part of the room, or if he gives equal attention to the room as a whole. Finally, a tally sheet was used to keep track of the number of times boys and girls were called on through out the two hour time segment. These tactics together created a large amount of information that was analyzed to find out what was occurring within the classroom. (Acheson, Keith 1987)

Methodology

Type of Research

This research conducted is both quantitative and qualitative. The quantitative research can be seen in the statistics that came from the classroom observation. All of those statistics were used to analyze the classroom situation and also were used as part of the basis of the thesis. Quantitative research from past research projects and articles was also used.

The qualitative research can be seen through the overall observations in the classroom, which is not seen in the numbers. There are a lot of things that do not show up in the numbers, which will be demonstrated later in the thesis. Observing the teacher

interactions with students and seeing different situations first hand offers important qualitative data. Also, an interview with the teacher was conducted to start the whole process. This helped to give a background on the teacher and any prior experience he may have had with the topic of gender bias. Through out the observations, the teacher was not consulted about how he was doing in order to allow him to act naturally and not affect the data.

Tools

The tools used for this research refer to *Another Set of Eyes*. Once again, the three tactics used include the seating chart, verbal flow chart, and the tally sheet.

The seating chart provides a visual view of the classroom to see how the teacher has set up the classroom and see if there are any gender implications from this set up. It is important to look at the way the classroom is structured in order to get a better feel of the overall situation and learning atmosphere for the students. (Acheson, Keith 1987)

The verbal flow chart goes along with the seating chart. It provides a visual of the classroom and uses arrows to identify where the teacher is facing and projecting when he addresses the class. It also shows whether the teacher is involving only a certain section in a discussion or if he is consistently directing his attention all around the room. This makes a very big difference in the learning experience of the students. (Acheson, Keith 1987)

The tally sheet provides direct numbers of how many times boys are called on in class versus how many times girls are called on in class. The observer can analyze this

data to see if there is gender bias and to see whether or not the teacher is being fair to all students. It also keeps track of the number of total times students are called on, which explains what type of activities are occurring in the classroom, meaning mostly lecture, or group work and so on. In some cases there are very few times that any students are called on, which usually would mean that there was a group activity involving all students. (Acheson, Keith 1987)

All of these tactics are used as tools to analyze the situation in the classroom and find out whether gender bias is occurring. This is combined with articles and past research done on this topic in order to realize if gender bias is still occurring in classrooms and also to see what can be done to improve the situation. (Acheson, Keith 1987)

IRB

In order to ensure that this research and project was done in an ethical manner, a form was submitted to the Institutional Review Board at Trinity College. The form explained the intention to go inside a sixth grade classroom, with permission from the teacher, to observe class three times a week for gender bias. It also explained that one interview would be held with the teacher before hand to find out whether he had any experience with the topic. A final meeting with the teacher would also occur once the research was completed.

Once permission was granted, observations began three times a week from eight-thirty to ten-thirty in the morning. A consent form was signed by the teacher, which

stated that at any time he was allowed to drop out of the project and also that his name would never be mentioned, since it is completely confidential. The teacher would receive an explanation of the findings from his classroom and therefore would benefit because of the project. It also explained that the information would be destroyed once the project concluded to be sure that his identity would be concealed.

Interpretation of Findings

In order to interpret all of the findings, the information will be statistically analyzed and will be combined with the qualitative observations as well as articles and past research. The statistical findings are very important, however not everything can be seen in numbers and therefore it is important to read over all written observations from each class period as well.

The tactic of the tally sheet will provide direct information on whether girls are being called on an equal amount of time in the classroom as boys. This will be done first by finding out the average number of girls in the classroom and the average number of boys in the classroom. Next, the percentage of time girls are called on versus the percentage of times boys are called on in class will be able to be calculated. These percentages will explain whether or not there is gender equity.

However, these numbers will not explain why gender bias is or is not occurring and therefore, appropriate attention must be paid to overall written observations of interactions as well as past research and articles to support these observations. Both

methods of observation are very important to analyzing the situation in the classroom. This is how findings will be interpreted in this project.

Findings from Observations

The data from the observations seems to be clear. It states that on average there were 8.89 girls in the classroom and 9.78 boys. This was calculated by taking the total number of boys from each day and dividing it by the number of times the class was observed. The same was done for the girls. The number of boys and compared to the number of girls in the classroom is very close, so it is expected that the number of times girls and boys are called on should be relatively equal.

Yet, the statistics show that 63.3% of the time boys were being called on, while girls were only being called on 36.7% of the time. This was calculated by taking the total number of times boys were called on and dividing it by the total number of times all students were called on. The same was done for girls as well. After analyzing the numbers, one would assume that this classroom is full of gender bias and the teacher would need to be brought to the teacher's attention that his style of teaching does not foster gender equity.

However, it seems that the teacher does not have a gender bias outlook and does not purposely call on boys more so than girls. Instead, it was evident that girls simply were not raising their hands to be called on and therefore the teacher was simply calling on more boys since they were raising their hands to participate. Also, if the boys were

misbehaving, the teacher would call on them to keep them involved and so they would not disrupt the class. With all of this said, it was evident that the original thesis that gender bias is occurring in middle school classrooms needed to be refined.

Thesis/Findings

It seems that girls have internalized gender bias from elementary school and past experiences and therefore have developed lower confidence levels and an unwillingness to take risks in the classroom. This causes girls to be at a large disadvantage in the classroom in comparison to the boys.

The support of this thesis starts in the first hand observations. It was clear that girls were not raising their hands in class for in depth, tough questions. Instead, girls were only raising their hands when the teacher asked a question that was a straight definition from a book, which they could literally read allowed. This situation is seen in the one day that girls were called on more so than boys. The girls were called on thirteen times more than boys in one day of observing. This was because the teacher was going over definitions from the book, while the students literally had the book open on their desks. The girls knew that they would be answering correctly and literally all of their hands were raised to volunteer at this time. The girls were answering low-risk questions, which does not help them to gain a better learning experience in the classroom.

Supporting Research

Past Gender Bias Project

The first source is a past gender bias project that deals with elementary school classrooms. The findings showed that gender bias was still occurring in elementary school classrooms and that the wrong messages were being sent to students from teachers. Although, to the untrained eye, it may have seemed that gender bias was not occurring, it still was. It was present in the implicit teacher interactions with students, where the underlying meaning was full of gender bias implications. (Baker, Jessica 2004)

One of the main sources in that research project was Myra and David Sadker's book, *Failing at Fairness: How America's Schools Cheat Girls*. This book explains the fact that girls are not getting as good of a learning experience as boys are and it starts at a very young age. Teachers probe boys and push them further with harder, more in depth questions and more feedback. Girls on the other hand are asked to answer questions with yes or no and are not given the same attention that boys receive. The implicit teacher interactions are a key factor in the message that is sent to boys and girls and eventually this message sticks with the students and is present when they are older and in higher grade levels. In order for girls to get an equal education in the classroom, teachers must become more aware of these issues. (Sadker, David & Sadker, Myra 1994)

Supporting Articles

The first article in support of the thesis is called, “Gender and Developmental Differences in the Academic Study Behaviors of Elementary School Children”. This article is a longitudinal study that compares academic study behaviors of students from when they are in fourth grade compared to sixth grade.

The study found that there is a major drop in confidence of girls from fourth grade to sixth grade. It states, “Research findings also indicate that there is a tendency for girls to develop less efficient study behaviors than boys and also to excel in rote recall. This gender difference may reflect the fact that girls have less interaction with, have less opportunity to speak in class, and receive more low-level questions than boys do.” (Hancock, Thomas, 7-8) This relates to the situation in the classroom observed first hand because girls did not raise their hands very often and only chose to answer the low-level questions in which this article refers to. This also relates to the fact that these girls have experienced gender bias in elementary school as well as past experiences in life and therefore it transfers into their classroom experiences as they get older. (Hancock, Thomas 1996)

The next article is called “Gender Differences in High Achieving Students in Math and Science”. It focuses on the fact that there are gender differences in high achieving students in math and science because of gender bias in elementary and middle school settings. It states, “The climates of elementary, middle, and high school, as well as college, may be responsible for changes in the attitudes of girls and women relative to achievement in math and science.” (Park, Sunghee & Reis, Sally, 2) It goes on to explain that this is because boys, “actively participate in school more and receive more attention from teachers.” (Park, Sunghee & Reis, Sally, 2) With all of this said, the article stressed

the importance of having a classroom environment that has gender equity. It is very important for all students to feel comfortable in the classroom and the more equal and open the class is, the better girls tend to perform. (Park, Sunghee & Reis, Sally 2001)

The article goes on to talk about the important role that parents play in teaching gender stereotypes to their children. It states, “Parents played a critical role... a study of parental influence on mathematics self-concept with gifted female adolescents as subjects found consistently significant correlations between parental expectations and student mathematics self-concept.” (Park, Sunghee & Reis, Sally, 5) The parents are the ones who set the expectation level for their children. If parents are setting higher expectations for boys in math and science and lower expectations for girls, this only ends up hurting the girls in the long run. Girls begin to believe that they are not supposed to do well in those subjects.

The article goes on to say, “girls were considered by their parents to be better in English and boys to be better in mathematics. Even when girls had higher grades, higher standardized test scores, and higher teacher ratings in math, parents believed that math was harder for girls than for boys.” (Park, Sunghee & Reis, Sally, 5) This shows the importance of parents’ expectations on their children. The children are being sent the wrong message at home and end up believing the untrue gender stereotypes that are being reinforced.

The final article that supports this thesis is called, “Middle School Advisories: A Vehicle for Developing Students' Gender Self-confidence”. This article stresses the fact that in middle school, the confidence level of girls plummet and self-esteem is low. Girls are vulnerable and are trying to find themselves. They are looking to form relationships

with their peers and gain overall acceptance from others. (Hoffman, Rose & Whitney, Linda 1998) With all of this going on, their classroom experience suffers. Their lower confidence in general has an effect on their participation in class, which directly relates to the thesis in this project. Girls do not feel comfortable taking the risk of raising their hand to answer a difficult question. They end up suffering because of this and have a lesser learning experience than that of boys. Lower confidence levels prove to be a very big issue in the learning experience of girls in general, especially in middle school. (Hoffman, Rose & Whitney, Linda 1998)

Conclusions

Overall, the research collected has shown that in middle school girls have very low confidence levels, develop a change in study habits, and a change in attitude towards overall achievement in the classroom. This causes girls to be at a major disadvantage in comparison to boys.

At the middle school level, girls are trying to figure out who they are and find themselves. They are also trying to form relationships with their peers and gain acceptance from other students. This can be a very difficult time because of all the pressures and anxieties that fitting in can cause. As a result, girls become unwilling to take risks in the classroom, which is the source of low participation. With low participation, girls are not getting the same learning experience and high level of learning that boys are receiving and therefore it is a major drawback for girls in general. (Hoffman, Rose & Whitney, Linda 1998)

The study habits of girls by middle school also change. Girls seem to be focused more on memorization and repetition instead of trying to actually understand the material by listening to the teachers lessons and absorbing the information. Boys, on the other hand, do not try to memorize and instead listen during the class time to gain a better understanding and have a better grasp on the material. This causes boys to have a much better learning experience overall. Girls need to be willing to take more risks in the classroom and not feel the need to memorize. They need to place their focus more on understanding the material clearly and less on learning by rote. (Hancock, Thomas 1996)

Finally, the overall attitude that girls have towards school changes from elementary to middle school. By middle school, girls begin to accept the stereotypes that are being taught to them from various different people and places. They begin accept the fact that they are not supposed to be great in math or science and therefore their grades and achievement suffer. Instead of realizing that they have just as much potential as anyone else, they end up falling to the stereotypes that are reinforced. It is important for everyone, especially teachers, to be aware of this and take action so that girls are not lowering their personal expectations of achievement. (Park, Sunghee & Reis, Sally 2001)

Recommendations

There are several recommendations for teachers to improve the classroom situation for girls. Even if the teacher believes in gender equity, girls have already internalized gender bias beliefs from past experiences and therefore the situation in the

classroom must be changed to help girls to improve their learning experience. There are four main options that teachers can pursue in order to foster a more gender equal classroom. These are group activities, evaluations, discussions, and teaming up with a school counselor. All of these options will cause a much better learning atmosphere for all students.

Group Activities

One of the main problems for girls in the classroom is answering questions that the teacher asks during a lecture. In a classroom lecture atmosphere, the entire class is paying attention and therefore a female student may not feel comfortable taking the risk of answering a question in front of the whole class. A wrong answer could be quite embarrassing and hurt her confidence even more. (Hoffman, Rose & Whitney, Linda 1998)

Instead, the teacher should hold activities where students can work together in small groups. This allows all students to work under much more comfortable conditions and be able to participate in the group more so than they would in a large classroom setting. The small number of people in the group allows for a more intimate interaction where the comfort level is much higher. The teacher can still walk around and be involved in each group to see the level of involvement and be a guide. It has been proven that girls work much better in smaller groups and feel much more comfortable giving their opinions and ideas. Therefore, small groups would create a much better learning environment for all students, but especially for the girls. (Hoffman, Rose & Whitney, Linda 1998)

Evaluations

There are three different types of evaluations that can be conducted in the classroom to ensure a more gender equitable environment. They are self evaluations, peer evaluations, and student assessments. These three options will give valuable information to the teacher on how his or her teaching style is benefiting or not benefiting students in terms of gender bias.

Self evaluations are simply when the teacher evaluates his or her self using tactics such as the ones used earlier in this research project. The teacher can use these tactics and also keep a person log of his or her interactions with students. Then the teacher can look at the findings and realize whether the classroom is gender equal or not. This is a very useful tool for the teacher to refer back to as well. (Hoffman, Rose & Whitney, Linda 1998)

Peer evaluations occur when a colleague or an expert in the field of gender bias comes into the classroom to observe. The observer would use similar tactics as this project has, such as seating charts, verbal flow charts and tally sheets. The information can then be analyzed and given to the teacher of the classroom to see whether their needs to be changes made. A discussion can also occur between the observer and the teacher for a more in depth explanation of the findings. (Hoffman, Rose & Whitney, Linda 1998)

Another important recommendation is that the teacher can hold conversations in the classroom regarding gender equity and gender role stereotypes. The students will be able to voice their opinions on the topic and the teacher can guide a discussion that will

allow students to feel more comfortable in the classroom. It will help the students to realize the problems with gender stereotypes and realize that boys and girls are equal and have the ability to excel in all subjects. Intern, students will be more confident in their abilities in school. This will result in a better class atmosphere and therefore all students will have a better learning experience. (Hoffman, Rose & Whitney, Linda 1998)

The final recommendation is for the teacher to team up with the school counselor. The counselor can help to guide a very important conversation on gender with the students. Having two resources on this topic will help the students to be more comfortable discussing gender bias and also will show how important the topic is. This will have a great benefit on all students because they will learn a lot and hopefully begin to realize that gender stereotypes are false and that all students in the classroom have an equal opportunity to succeed and achieve great things. (Hoffman, Rose & Whitney, Linda 1998)

The counselor and teacher can also lead a mentoring program. This will team up a teacher in the school with a student from the class. The student will be able to meet with this teacher outside of class time and form a relationship with this teacher. They can discuss this topic and help the student learn more about it and feel more comfortable with it. The teacher can also help the student to be more confident in his or her abilities in the classroom and help the student set high personal goals. This program can be very successful in fostering a comfortable, gender equal environment in the classroom. (Hoffman, Rose & Whitney, Linda 1998)

Final Note

If these recommendations are taken into consideration by teachers, the problem of gender bias would decrease greatly. The more students become aware of the topic of gender bias, the more likely gender bias can be eliminated in the classroom. It is just as important for boys to be aware of this topic as it is for girls. Gender stereotypes are a big problem in society today and once these stereotypes are continually addressed, students will be able to have a much more equal learning experience within the classroom.

Bibliography

Acheson, Keith (1987). *Another Set of Eyes: Techniques for Classroom Observation*.

Association for Supervision and Curriculum Development.

Baker, Jessica (2004). Gender Bias in Elementary School Classrooms. Education 300 research paper, Trinity College.

Hancock, Thomas, Kulhavy, Raymond, Stock, William, & Swindell, Linda (1996).

“Gender and Developmental Differences in the Academic Study Behaviors of Elementary School Children”. The Journal of Experimental Education v65 p18-39.

Hoffman, Rose & Whitney, Linda (1998). “Middle School Advisories: A Vehicle for

Developing Students’ Gender Self-Confidence”. Education (Chula Vista, Calif.)

119 no2 232-41

Park, Sunghee & Reis, Sally (2001). “Gender Differences in High-Achieving Students in Math and Science”. Journal for the Education of the Gifted 25 no1 52-73.

Sadker, David & Sadker, Myra (1994). *Failing at Fairness: how America's schools cheat girls*. New York: Maxwell Macmillan International.