

Single Gender Classrooms: Information Parents Need to  
Know to Make an Informed Decision

by

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ABSTRACT

Single gender classrooms are being experimented with in many areas of the United States. The researcher has gathered information on why these classrooms are being utilized more frequently. The reasons range from biological, social, and academic issues that males and females differ upon. Separating the sexes can allow teachers to focus on those differences and use them to provide the best academic setting for each student. Schools utilizing single gender classrooms have seen improvement in academic tests as well as some social issues.

The researcher explores what parents would like to know in order to make an informed decision on allowing their child to participate in a single gender classroom. The information gathered can be used by schools considering these classrooms. If any school would like to utilize single gender classrooms they will have to convince many parents it is best for their son or daughter. As the researcher found, parents have many concerns when considering this different

type of classroom. The information from the parent and student surveys can be used to guide information to be presented to parents. It can allow parents to make the decision they feel best helps their child achieve to their highest ability.

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## Chapter I: Introduction

In schools today students go through grade levels with peers close to their own age. A process exists in which students typically advance a grade level at the end of each school year together with their classmates. This system does not always lend itself to the variety of educational conditions needed for individuals to grow at their own pace. One possible area to investigate in regards to differences in student learning is gender. Males and females are different and they learn differently. Sax and Harper (2007) mentioned there is a range of differences between the sexes and various studies have explored them.

Girls and boys could possibly achieve more if these differences are recognized in the classroom. A way to address these differences could be to have a classroom with all girls and a classroom with all boys. The idea of a single gender classroom is to allow for learning differences to be recognized and utilized, helping students achieve more in school as well as to eliminate the distraction of the opposite sex. Martino, Mills, and Lingard (2005) found in their study the girls liked the single gender room because the boys were gone. The girls said they were more willing to speak in their single gender class. They mentioned their nervousness in coeducational rooms because of what the boys might think of them. If there are outside stimuli removed it may help girls or boys learn better. These factors can be used to help all students, boys and girls, to achieve more in single sex classrooms and mixed gender classrooms.

Some people have gone as far to say that many boys are suffering in our schools. Boys have been underachieving in public schools throughout the country (Wiens, 2006). Some boys are not interested in their education and it has hurt the lives of many men. The lack of engagement seen in male students is perplexing to many people. Some point to

schools gearing the curriculum towards the interests of girls as the reason for males' detachment. One particular area where Taylor (2005) believed schools are not helping boys is in literacy. She pointed to test scores taken between eighth grade boys and girls. The girls scored six times better on the writing portion of the test compared to the mathematical reasoning portion, where the boys scored better. Single gender classrooms can help these boys achieve more in literacy by focusing on what boys like to read. Many boys tend to read non-fiction books while schools today tend to focus on fictional stories, which girls prefer (Taylor, 2005).

The gender gap has existed for many years in the United States. Title IX legislation passed by the United States government in 1972 addressed the inequity girls experienced when schools focused the curriculum on boys. Title IX was intended to stop sex discrimination but it also stopped any type of experimentation with single gender classrooms (Herr & Arms, 2004). Many schools were afraid of breaking the law and did not venture into the realm of single gender classrooms.

This changed when the Bush administration passed the No Child Left Behind Act, also known as NCLB, in 2001. The NCLB made money available to schools experimenting with single gender classrooms (Herr & Arms, 2004). The Bush administration viewed single gender classrooms as a way to create more opportunities for students. Title IX restrictions have been reduced to encourage more schools to experiment with single gender classrooms. The hope was to give students more success when they have not been successful in regular coeducational schools (Hubbard & Datnow, 2005). The Bush administration has not been alone in the goal of giving public schools more options for students. Many senators have also given congressional

endorsements for single gender classes. A few of those people include senators Hillary Clinton, Kay Bailey, and Sue Collins (Herr & Arms, 2004).

Single gender classrooms are generally only experimental within public schools in the United States. Studies are inconclusive about the results of single gender classrooms and its effects on achievement for boys and girls. There is a lack of information on the long-term effects of single gender classrooms and more studies need to be conducted in order to form a better view on the subject (Herr & Arms, 2004). As a result, parents face a difficult decision when given the option of allowing their son or daughter the opportunity to participate in a single gender classroom. Schools have a difficult task convincing parents single gender classrooms might be best for their child. A school in a study by Martino, Mills, and Lingard (2005) mentioned the principal sold the idea to the parents of single gender classrooms by convincing them the girls needed to get away from the boys and it would be good for the girls. In reality, the principal wanted the program to remove the boys from the coeducational classroom in order to help them. The idea of single gender classrooms is not a new idea and the intent is to promote students' achievement. Keeping student achievement in mind, single gender classrooms can help students learn more and most parents would approve of that.

### *Statement of the Problem*

Most schools in the United States are coeducational schools. Generally, boys and girls go to classes together. One problem is many classrooms across the country do not take into account the varying learning styles of boys and girls. Research on these learning differences is not widely utilized in instructional practices today. Single gender classrooms are offered in classrooms in the United States today on trial basis. Parents

have the choice of allowing their children to participate in this type of class setting. As a result, parents need to be given information allowing them to make an informed decision on whether or not to allow their son or daughter to be in this type of classroom.

Parents and students were the focus of this study. The study gathered information on what parents wanted to know about single gender classrooms and single gender learning as well as students' thoughts on the topic. The information gathered from parents and students could be used to present single gender classroom information to parents. This information can help them make a better decision on whether single gender education is beneficial for their child.

#### *Purpose of the Study*

A survey was used to ask parents their opinion on single gender classrooms and what they would like to know about the subject. The study surveyed students after they worked in single and mixed gender groups. Another survey asked families if they would be in favor of allowing their child to be in a single gender classroom. These opinions were analyzed to understand reasons why parents are against or are in favor of the idea of these classrooms. The results of the survey allow schools presenting information to parents on single gender classrooms to focus on what parents want to know, allowing the schools to have a presentation which creates a positive atmosphere in favor of single gender classrooms.

### *Research Questions*

The research questions seek to gather information from parents and students on single gender classrooms. The first question looked at how parents view single gender classrooms, what are their beliefs and opinions on these classrooms. Secondly, do parents believe these classrooms can help their child learn more effectively. Thirdly, do the parents want their children participating in single gender classrooms. The children's opinion is also important to investigate. What do the students in these classrooms think about single gender settings in school. These questions guided the research and help the researcher explore the topic of single gender learning.

### *Assumptions of the Study*

The major assumption of this study is that single gender classrooms and groups will help students. This could include promoting academic achievement or allowing the student to concentrate better during class. It could also mean the student will be more engaged because the curriculum and instructional means will be geared either towards boys or girls.

### *Definition of Terms*

*Single gender classroom.* Single gender classrooms are classrooms with only students of one gender while the teacher of the class can be of either gender.

*Coeducational classroom.* Coeducational classrooms consist of classrooms with a mix of boys and girls.

*Gender gap.* The gender gap is the difference in test scores or grades between boys and girls.

*Title IX.* Title IX legislation was passed in 1972 by the United States government to allow girls an equal opportunity to participate in school activities.

*No Child Left Behind Act.* The No Child Left Behind Act is legislation passed in 2001 to improve academic achievement of all students.

#### *Limitations of the Study*

The lack of studies conducted on single gender classrooms make it difficult to find the effects on student achievement. When looking at the studies it will also be difficult to decide if the single gender classroom helped achievement or if it was another factor. For example, these other factors could include the amount of funding the school receives, the teacher's pedagogy, socioeconomic status of students, and parental support.

In the research conducted, pre-existing biases of parents could make it difficult to find information parents would like to know about single gender classrooms. They may not believe any information on single gender classrooms can change their opinion on the classrooms.

## Chapter II: Literature Review

Single gender classrooms are being used in the United States in an attempt to increase student achievement. Recent research suggests schools structured to implement gender specific strategies can be beneficial to many students. Researchers have found areas where males and females tend to be different. The classrooms which recognize these differences can key in on the learning styles specific to males and females. One of the areas is the biological make-up of males and females including brain and hearing differences. Social and behavioral needs can be met in varying degrees, allowing for an environment in which students can flourish. Ultimately, when learning styles are utilized in instruction, social behaviors are addressed, and the physical differences are acknowledged, male and female students alike are in a position in which academic achievement is promoted.

### *Biological*

Scientists have discovered numerous biological differences among males and females. Studies indicate such differences may account for different learning styles in which information can be effectively received. The composition of the brain and its functions is one area which has been examined closely. According to Wiens (2006) the research is not conclusive, but it links have been shown between brain anatomy and function with certain learning behaviors. An example of a difference in brain activity comes from a study conducted by Kansaku, Yamaura, and Kitazawa (2000) when they found females use both hemispheres of the brain while processing linguistic information while males only used the left hemisphere. Gurian and Stevens (2004) strengthened this argument by stating it is in fact the connecting tissue between the hemispheres of the

female brain which is larger, allowing the sides to work together more freely than in a male brain.

According to Kujunfu (2005) males and females generally experience different interests and strengths based on the idea that males tend to be right brain dominant and females tend to be left-brain dominant. Further strengthening the argument on brain differences between genders, the University of Pennsylvania Medical Center (1999) found females commonly do better on verbal tasks as men perform better on spatial tasks. This can be linked to relative differences in gray and white matter in the brains of males and females. Gray matter consists of neuron cells and their dendrites, which are short arm like extensions that communicate with other neurons right next to them in the brain. White matter are the longer axons, covered in fat, and referred to as myelin. The white matter communicates with neuron cells in further away areas of the brain. According to the University of California Irvine (2005), "In general, men have approximately 6.5 times the amount of gray matter related to general intelligence than women, and women have nearly 10 times the amount of white matter related to intelligence than men" (University of California Irvine, 2005, Study Results section, ¶ 4). The gray matter is the center for processing information in the brain, and white matter is the connection between the centers. This helps explain why males usually excel in tasks which use more local processing, which involves gray matter, like mathematics. Females commonly excel at combining and incorporating data using white matter to connect the gray matter areas within the brain, which are used for language ability. Wiens (2006) stated this difference of brain matter could lead to a better understanding of why boys and girls learn differently and how the use of visual aids can help boys in the classroom. Therefore,

educational experiences designed around brain research-based learning styles of each gender tend to produce a higher level of student achievement.

Another biological difference between males and females is the design of the ear. Kunjufu (2005) identified a typical male's hearing to be inferior to the hearing of a typical female. He attributes this difference to a reason why boys have varied school experiences from girls. Wiens (2006) reiterated the idea hearing differences occur between the genders and cites the physical characteristics of the ear as the main reason. Wiens indicated girls are born with a shorter and stiffer part of the ear called the cochlea. This, along with shorter and stiffer hair cells allows girls' hearing to be more sensitive than boys' hearing. As a result, boys have to concentrate more just to hear better in their classes whereas this may come more naturally for their female counterparts. Gurian (2001) stated females are generally able to hear better than males and boys may benefit from being placed close to the front of the classroom. He also noted, "Six times as many girls can sing in tune as boys" (Gurian, 2001, p. 30). This fact provides more evidence boys and girls have many differences which need to be accounted for in the classroom.

### *Academics*

Some people believe boys are suffering academically in various subjects in schools today. Literacy is an area which contains one of the largest achievement gaps between boys and girls. Taylor (2004) attributes this gap to the idea schools are using books girls prefer to read. She believes boys should be able to choose many different types of literature and this will allow them to increase their reading achievement. Wiens, (2006) stated this literature needs to contain male role models and it should be similar to interests of boys so they take a vested concern in their reading and writing while they are

in school. Schools tend to favor types of books girls enjoy such as *Sarah Plain and Tall*. The texts boys generally enjoy include informational books along with books containing action with strong descriptions while girls usually enjoy fictional stories with relationships building amongst the characters. Books males enjoy could include *Lord of the Flies* and *Robinson Crusoe*. Biographies of males can also intrigue young boys and help them to grow their interest in reading.

Taylor (2004) also pointed out many boys develop language skills and muscle memories at a different rate than girls. This can also have an impact on the gender gaps between boys and girls in literacy at an early age, causing many boys to feel left behind and develop a low sense of achievement when it comes to literature. According to Gurian (2001) the United States Department of Education estimated on average, girls are about one and half years ahead of boys in reading and writing. This is a difficult gap for boys to close as they move through school.

Related to literacy is the development of verbal skills in males and females. Phillips, Lowe, Lurito, Dzemidzic, and Mathews (2001) found there are differences in gender when it comes to these verbal skills. Women have better verbal and speech production skills than men. Gurian (2001) stated females are better at communicating verbally than males. Males are more adept at nonverbal communication which can affect boys adversely in many areas of our current society including schools which rely on verbal abilities. An example of nonverbal communication is the use of body language and visuals. Gurian noted one possibility for the difference in verbal abilities can be attributed to females' tendency to have stronger neuron connections, which are part of memory

storage, in the brain which create better skills for communicative tasks. This is yet another example of the differences in academic performance between the sexes.

Not only is there evidence of a gender achievement gap in reading, various sources indicate a similar gap in math and science. In an achievement test study of numerous European countries and the United States, Van Langen, Bosker, and Dekkers (2006) found overall, girls are behind boys in math and science achievement. Whereas the same study concluded boys seem to be behind the girls in achievement of literary skills.

A possible reason for the success in literacy is the fact females possess brain characteristics and common strengths allowing for more natural success in reading. Boys tend to exhibit different strengths allowing them to be increasingly and naturally successful in spatial concepts such as math and science (Gurian, 2001). This can be seen in math and science scores found by Gurian within the United States Department of Education. The Department estimated boys, on average, are two to four points ahead of females on standardized assessments. The gap is mostly observed in the uppermost parts of calculus, chemistry, and physics. Warrington and Younger (2000) felt this gap can be attributed to certain subjects being socially constructed as more for males than females and vice versa. The researchers found that girls in their study felt alienated by science while many students felt science was a good fit for boys. Boys and girls can easily be placed into stereotypes within our schools according to what boys and girls are generally good at.

In such places worldwide, the United Kingdom and Australia are two examples of locations in which programs have been specifically designed to raise the achievement for

young girls. Warrington and Younger (2000) stated the United Kingdom and Australia observed girls achieving at higher rates than boys in many subjects, especially English, the humanities, and foreign languages. This information can also be applied and looked at for the U.S. and its school system. The authors caution this should not be seen as an academic failure for boys. The increase should be seen as an academic success for girls.

This success came from programs developed decades earlier to improve the test scores of girls. Warrington and Younger (2000) mentioned these programs to include schools passing equal opportunity policies for girls, new textbooks aimed at avoiding bias due to gender, and creating Girls Into Science and Technology Project. This project was created to make science more appealing to females in school. According to Whyte (1986) the project studied eight schools in which interventions were used to attempt to make science more appealing to girls. The interventions included having women scientists come to the school to present information on their careers. The teachers at the schools were instructed to provide more examples in science related to what girls like and to include material about women scientists and their accomplishments. This program was a success for girls in these schools, it created interest in subjects girls typically weren't interested in. The curriculum created an atmosphere for the girls to do well. The program to help girls in the United Kingdom and Australia showed the educational setting provided a student can change their achievement level no matter what gender they are.

### *Social/Behavioral*

Not only has academics played an important role in the decision to conduct single gender classrooms, but there have been social considerations as well. Kunjunfu (2005) identified certain male behaviors that are viewed as discrepant from females. His

thoughts identify males as characteristically more aggressive than females. They also generally possess a higher energy level and have a shorter attention span. All of which can be seen as barriers to learning in comparison to females. One possible explanation as to why boys are not achieving as well as girls comes from Gurian (2001). He stated some boys are active in their learning and can be in other people's space when learning, especially at a young age. These boys have not learned to manage this activity in the classroom and can disturb others in the room. As a result these boys tend to get in trouble, creating a negative environment for them early on in their schooling. An example of this is mentioned by Kunjufu (2005) when boys push the limits of the rules in class, wanting to do more than the rules permit. One solution would be to use the boys' activity as a positive and get girls as well as others to be more active in the classroom, creating a positive environment for these boys. Sax (2007) visited all male classrooms in which boys are able to move around freely throughout class time. This allows boys to learn while being active. He also mentioned a classroom in which boys could move around and interject while a teacher was reading a book to them. This technique is called noisy-time story time and administrators have found it works best with all boy classrooms. The story time increases the chances that boys will create a love for books.

Boys and girls have different feelings about single gender classrooms. A few sources have noted some females find males to be a distraction to their learning. In the Herr and Arms (2004) study, several girls were interviewed and stated they enjoyed single sex classes because they did not have to worry about impressing boys, thus producing more concentration on schoolwork. On the other hand, an additional finding of classrooms consisting of all males at the school showed a major concern with the

behavior exhibited by those boys. The classrooms were thought to be out of control. Teachers felt increasing pressure to manage this behavior. The boys in those classrooms cited the behavior differences were due to the lack of female presence. However, Herr and Arms suggested there was limited training provided for teachers to learn effective ways of teaching students in gender specific classrooms. They also stated they saw only one time when the teachers were given guidance on single sex procedures for a classroom. The teachers' training consisted of watching a film on single gender ideas for working with boys and a guest speaker that had worked with all girl classrooms. All boys' classrooms could have possibly been instructed in a more positive way had more training been given to the teachers.

Single gender classrooms do not work well unless there is a teacher with the knowledge on how to educate the students in the single sex groups (Martino, Mills, & Lingard, 2005). The researchers also stated it is important to know the social make up of gender to utilize it to your advantage in the classroom. Not to use the information on gender and its effects on all students can have a detrimental outcome on them and their educational experience. Single gender classrooms are implemented in many countries throughout the world. In Australia there was a study conducted on 19 schools across the country which used single gender classrooms in years six and seven. Martino et al. wanted to look at the effect on the experiences of the males and females in their school. The schools adopted single sex classrooms to help meet the needs of the boys in the classroom. They found the boys in the schools did not benefit from the single gender classrooms except when the educator modified their teaching style to address the academic and social needs of the boys. Two examples of these modifications included a

teacher who created hands on activities for boys to actively engage them as well as allowing them to jog around the gym oval for three to five minutes in small groups. The teacher concluded this time jogging helped the boys to control their high energy levels. These modifications helped them concentrate more on school work.

Considering the research done on gender differences, a case is made in which further investigation is warranted on the implementation of single gender grouping. The differences in gender are numerous, such as the biological make-up of males and females. Physical differences exist in males and females which are scientifically proven to have various strengths in the way they function. These strengths can aid students in communicating and obtaining information. A variety of means are necessary to touch the needs of the various learning styles created by these differences. Not only are academics influenced by gender differences but social and behavioral distinctions also need to be taken into account when creating successful learning environments. Some schools across the country and around the world have established single gender learning to meet the needs of the students. However, these schools are few and far in between and more research is needed in order to draw a conclusion on the effectiveness on single gender classrooms.

### *Schools*

Single gender classrooms can help to focus on what girls and boys both need to be successful. With the learning styles of males and females taken into consideration, schools that have employed single gender classrooms have seen an increase in student achievement on standardized tests. One such school in California, called the Single Sex Academy, saw student scores on the Stanford 9 test go up (Herr and Arms, 2004).

According to the website for the Scottsdale School District in Arizona the Stanford 9 test assesses students' performance in math, language, and reading (Scottsdale Unified School District, 2006). Herr and Arms (2004) reported on the findings of the state of California in regards to this test. In general, the academy experienced academic gains as a result of their efforts to address gender needs in education. Although there are many factors which contribute to student success, such as funding and teacher preparation, the school experienced academic success nonetheless.

When this school was studied by Herr and Arms (2004) it was in its sixth year of existence. The school was part of a 12 school experimental program in single gender education set up by California Governor Pete Wilson in 1997. According to the National Association for Single Sex Public Education (2008) these schools were often used for students from alternative schools as well as boys and girls from the correctional education system. As a result the single gender schools became known as a place to put the troubled students and as a result the community saw the schools negatively. Ultimately these schools lacked political support and full funding. Consequently, when the governor left office the schools were shut down.

Considering the research done on gender differences, a case is made in which further investigation is warranted on the implementation of single gender grouping. The differences in gender are numerous. When looking at the biological make-up of males and females as well as variations in behavior and learning styles, it is difficult to ignore the distinction of these genders. Teachers are held accountable by administration, parents, and students for differentiating instruction based on need. Single gender groupings can aid in this differentiation, helping many students be successful.

### Chapter III: Methodology

The objective of this investigation was to study the opinions of parents and students on single gender classrooms. The results of this analysis can be used for schools preparing informational parent meetings to explore facilitating single gender classrooms. The information presented at these meetings can be guided by the results found from this investigation. Schools can focus on the biggest areas of concerns for parents and be able to present information which can answer their questions. This section explains the research methods used to collect data and a summary of the information.

#### *Selection and Description of Sample*

The setting will be parents of students in sixth grade as well as their children in sixth grade for the 2009/2010 school year at Viking Middle School in Woodville, Wisconsin. Viking Middle School contains grades five through eight within the Baldwin-Woodville school district. The students at the school reside in the villages of Baldwin and Woodville along with surrounding townships in St. Croix County. Baldwin and Woodville are two communities located adjacent to interstate highway 94 approximately 40 miles east of the twin cities. The close proximity to a large metropolitan area has caused the school district population to grow in recent years. The population has become more diverse in many different areas.

The following information was found on Wisconsin's Information Network for Successful Schools, a website with information on Wisconsin schools which is created by the Wisconsin Department of Public Instruction. Viking Middle School had 449 students for the 2008/2009 school year. Out of those students, 24.5% or approximately 110, qualified for subsidized lunch. The middle school contained 51.2% female and 48.8%

male. The majority of students identify themselves as white. There is a small population of minority students. There were 0.7% American Indian, 2.4% Asian, 2.9% African American, 0.7% Hispanic, and 93.3% white. Children with disabilities equaled 11.1% for the middle school. Most students in the school were English proficient, with 97.6% reaching this level. Among the group of students not reaching the proficient level are broken down into the English language learners (ELL), 0.2% were Spanish speaking, 1.8% were Hmong speaking, and 0.4% were other.

The total population of sixth graders for the 2009/2010 school year is 98 students. Those sixth grade students were divided into four classes with approximately 24 students in each class. Within the sixth grade, there are 50 boys and 48 girls which range in age from 10 to 12 years old.

### *Instrumentation*

The researcher assessed the parents' attitudes and gathered information about single gender classrooms with a questionnaire to gauge their responses (Appendix A). Part I of the survey gathered general information, like the person's gender and age. Part II consisted of 10 survey questions which utilized the Likert scale to gauge their feelings about aspects of single gender classrooms. The scale consisted of four points with differing levels of agreement to a statement. The choices included strongly agree, agree, disagree, and strongly disagree. Part III consisted of one open ended question to find out what other information they would like to know about single gender classrooms. The survey was given when their children were in sixth grade.

The students were given a survey to gauge their feelings about single gender learning (Appendix B). A survey was administered to the students after they worked in

single gender groups as well as mixed gender groups during a group project. The groups consisted of pairs of students with students randomly assigned a partner. Some pairs consisted of single gender groups while others were mixed. The first two questions of the survey gathered general information from the students, like their gender and what type of group they worked in for their project. The rest of the survey contained 10 questions which utilized the Likert scale to measure their feelings on single gender learning. The scale consisted of four points with differing levels of agreement. The choices included strongly agree, agree, disagree, and strongly disagree. Their responses to the survey were analyzed to find what type of groups they preferred working in as well as their feelings about working in single gender groups versus mixed groups. Schools can utilize this information to see how students view single gender groupings and whether students feel they are effective.

#### *Data Collection*

The parents were sent a letter through the mail requesting their assistance in an online survey measuring their thoughts on single gender classrooms. Both parents were encouraged to take the survey. The survey was administered online through a web based survey collection tool known as survey monkey. The surveys were anonymous and they were analyzed according to their responses.

The students' surveys were also conducted with survey monkey during class and were done anonymously. The surveys were categorized according to gender and what type of group they worked in. The researcher will keep the data safe for five years in Viking Middle School's office files.

### *Data Analysis*

Surveys taken by parents were analyzed and organized according to their responses. The survey responses were used to examine the parents' feelings about working in single gender groups and their overall attitudes on single gender groupings. Student surveys were also analyzed according to their feelings on single gender groupings. The information gathered from the surveys utilized quantitative as well as qualitative analysis. Part II of the parent and student surveys were analyzed with quantitative statistical measures. Part III of the parent survey was analyzed with qualitative data analysis to summarize into general themes.

### *Limitations*

One of the limitations of the study is gauging parents' attitudes and why they formed these attitudes on single gender classrooms. The researcher found information parents would like to know about single gender classrooms. Collecting any information that may change the minds of parents with negative views on single gender classrooms may prove difficult. Obtaining students' honest opinion and not just the opinion of their parents could also be a problem. Another challenge is to account for the surveys some parents don't complete, which are their viewpoints. It is recommended that the surveys be given annually to gauge parents' viewpoints over time. As single gender classrooms increase in number, parents' attitudes about these classrooms might change. One last limitation is the survey was researcher developed and may not have effectively conveyed the intended questions.

## Chapter IV: Results

The purpose of this study was to collect information from parents and students on single gender classrooms as well as single gender learning. Parents were sent a letter requesting their response to an online survey. The survey gathered opinions from parents on single gender learning. The parent survey consisted of nine statements that they rated on a four point scale from strongly agree, agree, disagree, strongly disagree. The first three statements asked their gender, age, and what gender their child is. Statements four through eight asked their level of agreement or disagreement according to their opinion on single gender learning. The last three questions gathered comments from parents on single gender learning. There were 42 parents that completed the survey out of 98 total letters sent home to parents. This resulted in a response rate of 43%.

Students also completed a survey on single gender learning. They completed the online survey after working in single gender and mixed gender groups. The student survey consisted of 12 statements that they rated on a four point scale from strongly agree, agree, disagree, strongly disagree. The first two questions gathered information from the respondents on gender and what type of group they worked in. The rest of the survey asked students their level of agreement or disagreement to single gender versus mixed gender learning. There were 75 students that completed the survey out of 98 total students in sixth grade for a response rate of 77% percent.

### *Item Analysis for student survey*

A review of Table 1 shows 44% of student respondents were male and 56% were female. The total number of students that completed the survey was 75.

Table 1

*Select your gender*

	Male	Female	Total
Count	33	42	75
Percentage	44%	56%	100%

As indicated in Table 2, 44% of the students that responded worked in single gender groups during the project. The mixed gender groups equaled 56% of the total that responded to the survey question.

Table 2

*What type of group did you work in*

	Single Gender Groups	Mixed Gender Groups	Total
Count	33	42	75
Percentage	44%	56%	100%

A review of Table 3 shows 38.7% of students either strongly disagreed or disagreed with liking to work in a group of one gender. On the other hand, 61.3% of students either agreed or strongly agreed with liking to work in a group with one gender.

Table 3

*I like working in a group with all one gender*

	Strongly disagree	Disagree	Agree	Strongly agree	Total
Count	8	21	30	16	75
Percentage	10.7%	28%	40%	21.3%	100%

Student survey question four found students, 54% of them, strongly disagreed or disagreed with finding it easier to work on a project with everyone in the group being the same gender. A little under half, or 46% of the students, agreed or strongly agreed to finding it easier to work on a project with everyone in the group being the same gender.

Table 4

*It is easier working on a project with everyone in the group being the same gender*

	Strongly disagree	Disagree	Agree	Strongly agree	Total
Count	3	36	20	16	75
Percentage	4%	48%	26.7%	21.3%	100%

According to the data from Table 5 a majority of students, 66.66% of them, strongly agreed or agreed that it easier to work on a project with boys and girls together. Adversely, 33.33% of students felt it was not easier working in a group of boys and girls together.

Table 5

*It is easier working on a project with boys and girls together.*

	Strongly disagree	Disagree	Agree	Strongly agree	Total
Count	3	22	34	16	75
Percentage	4%	29.33%	45.33%	21.33%	100%

The information from Table 6 had 59% of students strongly disagree or disagree with the statement of a finished project earning a better grade while working in a group of one gender. While 41% agreed or strongly agreed that working in a group of one gender would earn a better grade.

Table 6

*I think a finished project would earn a better grade while working in a group of all one gender*

	Strongly disagree	Disagree	Agree	Strongly agree	Total
Count	9	35	28	3	75
Percentage	12%	47%	37%	4%	100%

According to the data in Table 7, 69.3% of students strongly agreed or agreed that they would earn a better grade on a project while working in a group of boys and girls together. Students strongly disagreeing or disagreeing totaled 30.7%.

Table 7

*I think a finished project would earn a better grade while working in a group of boys and girls together.*

	Strongly disagree	Disagree	Agree	Strongly agree	Total
Count	2	21	32	20	75
Percentage	2.7%	28%	42.7%	26.6%	100%

A review of Table 8 found 52% of students strongly disagreed or disagreed with preferring to work in a group of one gender. While 48% of the students strongly agreed or agreed with preferring to work in a group of one gender.

Table 8

*I would prefer to work in a group of all one gender*

	Strongly disagree	Disagree	Agree	Strongly agree	Total
Count	15	24	27	9	75
Percentage	20%	32%	36%	12%	100%

The information in Table 9 shows a majority of students, 66.7% agree or strongly agree that they would prefer to work in a group of boys and girls. The number of students disagreeing or strongly disagreeing with working in a group of boys and girls is 33.3%.

Table 9

*I would prefer to work in a group of boys and girls*

	Strongly disagree	Disagree	Agree	Strongly agree	Total
Count	4	21	32	18	75
Percentage	5.3%	28%	42.7%	24%	100%

According to the data in Table 10 a small majority, 52% of them, disagreed or strongly disagreed with the statement that their finished project would not be very good if they worked in a group of all one gender. Countering this is the number of students, 48% of them, which strongly agreed or agreed that working in a group of one gender would result in a project that was not very good.

Table 10

*I think our finished project would not be very good if I worked in a group of all one gender*

	Strongly disagree	Disagree	Agree	Strongly agree	Total
Count	6	33	24	12	75
Percentage	8%	44%	32%	16%	100%

The data in Table 11 shows a majority of students, 74.7% of them, strongly disagree or disagree with the statement of their project not being very good if they worked in a group of boys and girls. The other side of the response shows 25.4% of the

students agreeing or strongly agreeing with the statement of their project not being very if they worked in a group of boys and girls.

Table 11

*I think our finished project would not be very good if I worked in a group of boys and girls*

	Strongly disagree	Disagree	Agree	Strongly agree	Total
Count	17	39	15	4	75
Percentage	22.7%	52%	20%	5.3%	100%

A review of the information in Table 12 had 72% of the students strongly agree or agree with the statement in which it did not matter what type of group they worked in. While 28% of the students strongly disagreed or disagreed with the same statement.

Table 12

*It does not matter to me if I work with all one gender or a mixed gender group*

	Strongly disagree	Disagree	Agree	Strongly agree	Total
Count	5	16	30	24	75
Percentage	7%	21%	40%	32%	100%

#### *Item Analysis for parent survey*

Table 13 indicates 19% of the respondents were male. On the other end of the spectrum, a majority of respondents, 81% were female. There were a total of 42 respondents to the question.

Table 13

*Select your gender*

	Male	Female	Total
Count	8	34	42
Percentage	19%	81%	100%

A review of the respondents' information in Table 14 shows a majority of respondents, 64.3% were below 40 years of age. The remaining 35.7% of the respondents were above the age of 41.

Table 14

*Select your age category*

	30 years or below	31 to 40 years old	41 to 50 years old	50 years or older	Total
Count	1	26	12	3	42
Percentage	2.4%	61.9%	28.6%	7.1%	100%

The information in Table 15 focuses on the gender of the parent's child in sixth grade. From the 42 people who responded, 42.9% of them had a child in sixth grade that is male. Female children represented 57.1% of the parents responding to the survey.

Table 15

*Select the gender of your sixth grade child*

	Male	Female	Total
Count	18	24	42
Percentage	42.9%	57.1%	100%

According to the data in Table 16 a majority of parents, 86% of them, disagreed or strongly disagreed their child would earn a better grade on a project when working in a single gender group. Adversely, only 14% of the parents agreed their child would earn a better grade on a project when working in a single gender group.

Table 16

*I believe my child would earn a better grade on a project when he or she works in a single gender group.*

	Strongly disagree	Disagree	Agree	Strongly agree	Total
Count	2	34	6	0	42
Percentage	5%	81%	14%	0%	100%

The information in table 17 shows 31% of the parents disagreed with the belief that their child would earn a better grade on a project when working in a mixed gender group. The parents, 69% of them, strongly agreed or agreed their child would earn a better grade on a project when they work in a mixed gender group.

Table 17

*I believe my child would earn a better grade on a project when they work in a mixed gender group*

	Strongly disagree	Disagree	Agree	Strongly agree	Total
Count	0	13	23	6	42
Percentage	0%	31%	55%	14%	100%

According to the data in Table 18 most parents, 90% of them, disagreed or strongly disagreed with the statement of preferring their child work in single gender groups at school. While only 10% of the parents prefer their child work in single gender groups at school.

Table 18

*I prefer my child work in single gender groups at school*

	Strongly disagree	Disagree	Agree	Strongly agree	Total
Count	9	29	4	0	42
Percentage	21%	69%	10%	0%	100%

A review of the data in Table 19 shows 81% of parents agreed or strongly agreed with preferring their child work in mixed gender groups. Only 19% disagreed with preferring their child work in mixed gender groups.

Table 19

*I prefer my child work in mixed gender groups*

	Strongly disagree	Disagree	Agree	Strongly agree	Total
Count	0	8	26	8	42
Percentage	0%	19%	62%	19%	100%

The information in Table 20 shows 71.4% of parents agreed or strongly agreed with the statement of it not mattering what type of gender based group their child works in. On the other end of the spectrum, 28.6% of parents disagreed or strongly disagreed with the statement of it whether it mattered what type of gender based group their child works in.

Table 20

*It does not matter to me what type of gender based group my child works in*

	Strongly disagree	Disagree	Agree	Strongly agree	Total
Count	1	11	24	6	42
Percentage	2.4%	26.2%	57.1%	14.3%	100%

According to the data in Table 21 the parents were split half and half to allow their son or daughter to participate in a single gender classroom. Out of the 50 percent of the parents disagreeing, 7.1% strongly disagreed. While 4.8% of the parents strongly agreed to allowing their child to participate in a single gender classroom.

Table 21

*You would allow your son or daughter to participate in a single gender classroom*

	Strongly disagree	Disagree	Agree	Strongly agree	Total
Count	3	18	19	2	42
Percentage	7.1%	42.9%	45.2%	4.8%	100%

Question 10 from the survey asked parents for comments on what they would like to know more about from their school if the school was considering single gender classrooms. The responses from parents were numerous and can be found in Appendix F. Many of the parents had the same comments to the question. Many comments wanted to see the current research and if it would be beneficial for their son or daughter. Parents wanted to see more studies that were done in other schools with single gender classrooms. Along with these concerns parents also commented on the reasoning behind trying single gender classrooms. These comments generally had a tone of doing what is best for their child.

Question 11 asked parents to respond only if there were against single gender classrooms. The question requested any information schools could provide to parents who are against single gender learning in an attempt to change their opinion. The responses from parents can be found in Appendix G. Numerous parents mentioned additional research regarding benefits of single gender classrooms. Many would consider the classroom if there was research to support a better learning environment for their child. Several other parents stated there was nothing that would change their mind and they believed mixing genders in schools is best for their child.

Question 12 asked parents who are in favor of single gender classrooms to state their reason why. The responses to this question can be found in Appendix H. The overwhelming response to this question was the concern for their child in regards to distractions from the opposite sex. Most of the parents stated these classrooms could aid in getting rid of the opposite sex distraction. It could allow their child to focus on school work.

## Chapter V: Discussion

### *Introduction*

Single gender classrooms and single gender learning is an area being explored by many schools across the country. Schools are experimenting with this idea to see if it helps boys and girls learn more effectively. Two surveys were used in this study. The student survey (Appendix B) questioned students on single gender learning after they worked in single gender groups as well as mixed gender groups. The parent survey (Appendix A) questioned parents on their opinions of single gender learning and single gender classrooms. The results of the surveys allow schools presenting information to parents on single gender classrooms to focus on what parents want to know, allowing the schools to have a positive presentation which creates a positive atmosphere in favor of single gender classrooms.

### *Limitations*

One of the limitations of the study is gauging parents' attitudes and why they formed these attitudes on single gender classrooms. The researcher found information parents would like to know about single gender classrooms. Collecting any information that may change the minds of parents with negative views on single gender classrooms may prove difficult. Obtaining students' honest opinion and not just the opinion of their parents could also be a problem. Another challenge is to account for the surveys some parents don't complete, which are their viewpoints. The researcher recommends that the surveys be given annually to gauge parents' viewpoints over time. As single gender classrooms increase in number, parents' attitudes about these classrooms might change.

One last limitation is the survey was researcher developed and may not have effectively conveyed the intended questions.

### *Conclusions*

When analyzing the student survey a few findings stood out. The first finding was the students stating they liked working in a group of all one gender. Out of 75 students, 61.3% of them liked working in a group of all one gender. The reason why they liked working in a single gender group is unknown but it could be a variety of reasons, ranging from academic reasons to social issues. As stated earlier in the Herr and Arms (2004) study, several girls were interviewed and stated they enjoyed single sex classes because they did not have to worry about impressing boys, thus producing more concentration on schoolwork. This reasoning could be applied here and may have played a role in their response.

The second finding was the students' last response on the survey. The statement asked them their level of agreement or disagreement to the opinion of it not mattering what type of group they worked in. Most students, 73% of them, agreed that they didn't care what type of group they worked in. Whether the groups are decided by the teachers or by the students the majority doesn't care what type of group they are in. The researcher believes the decision of single gender learning and classrooms is in the hands of the parents and teachers working together. Many students don't care what type of group they work in.

The parents' survey had many interesting findings. First, most of the parents, 81% of them were female. Thus the viewpoints of the survey come from the mostly female side of things. A majority of parents, 85.8% of them, felt their child would not earn a

better grade on a project when working in a single gender group. This is a large majority and it shows that many parents would need to be educated more in the benefits of single gender learning if this school would want to pursue single gender classrooms. The response to this question also carries over to two other statements. Parents overwhelming, 81% or them, stated they would prefer their child to work in mixed gender groups. An example of some information parents would find interesting and may change their minds on student achievement and single gender grouping is a school mentioned earlier in California, called the Single Sex Academy, in which they saw student scores on the Stanford 9 test go up (Herr and Arms, 2004).

A school wanting to pursue single gender classrooms would have a challenge of convincing parents to support the idea for their child. When parents were asked if they would allow their son or daughter to participate in a single gender classroom their response was 50% agreeing and 50% disagreeing. There were some parents that would consider this type of classroom for their child if they were given more information on the benefits of single gender learning. They would like to hear more information from other schools having success with single gender learning and having a debate to hear both sides of the issue. Parent concerns on single gender classrooms need to be addressed by any schools wanting to have single gender classrooms.

### *Recommendations*

Single gender classrooms and single gender learning can help all students' academic achievement. Number one is teacher training. Teachers need to be trained properly before teaching a single gender classroom. Having a room with only boys or only girls doesn't mean that they will automatically achieve more than they would in a

mixed gender classroom. Teacher training is very important. As stated earlier by Martino, Mills, & Lingard, (2005) single gender classrooms do not work well unless there is a teacher with the knowledge on how to educate the students in the single sex groups.

After researching single gender classrooms and the many benefits of recognizing differences in males and females. It is believed that these differences can be recognized and utilized by educators in mixed gender classrooms. Educators can be sure boys and girls have certain accommodations met to help them learn to their highest ability. The accommodations can range from boys allowed to read materials that interest them to girls being able to express themselves in class verbally.

The researcher recommends for more research to be done on schools currently using single gender classroom. Analyze the students' achievement levels at single gender schools from previous years in which the students participated in mixed gender classrooms. More parents will support single gender classrooms if more research is done on actual single gender classrooms and their benefits.

## References

- Gurian, M. (2001). *Boys and girls learn differently* (1<sup>st</sup> ed.). San Francisco: Jossey-Bass.
- Gurian, M., & Stevens, K. (2004). With boys and girls in mind. *Educational Leadership*, 62 (3), 21-26. Retrieved December 1, 2008 from [http://www.ascd.org/publications/educational\\_leadership/nov04/vol62/num03/Wit\\_h\\_Boys\\_and\\_Girls\\_in\\_Mind.aspx](http://www.ascd.org/publications/educational_leadership/nov04/vol62/num03/Wit_h_Boys_and_Girls_in_Mind.aspx)
- Herr, K., & Arms, E. (2004). Accountability and single sex schooling: A collision of reform agendas. *American Educational Research Journal*, 41 (3), 527-555. Retrieved September 8, 2008 from Wilson Web database.
- Hubbard, L., & Datnow, A. (2005). Do single-sex schools improve the education of low-income and minority students? An investigation of California's public single-gender academies. *Anthropology and Education Quarterly*, 36 (2), 115-131. Retrieved September 8, 2008 from Wilson Web database.
- Kansaku, K., Yamaura, A., & Kitazawa, S. (2000). Sex differences in lateralization revealed in the posterior language areas. *Cerebral Cortex*, 10 (9), 866-872. Retrieved October 10, 2008 from Ebsco Host database.
- Kunjufu, J. (2005). *Keeping black boys out of special education* (1<sup>st</sup> ed.). Chicago: African American Images.
- Martino, M., Mills, M., & Lingard B. (2005). Interrogating single-sex classes as a strategy for addressing boys' educational and social needs. *Oxford Review of Education*, 31 (2), 237-254. Retrieved September 8, 2008 from Ebsco Host database.

National Association for Single Sex Public Education. (n.d.). The California experiment.

Retrieved July 6, 2009, from <http://www.singlesexschools.org/policy-california.htm>.

Phillips, M. D., Lowe, M.J., Lurito, J.T., Dzemidzic, M., Mathews, V.P. (2001).

Temporal lobe activation demonstrates sex-based differences during passive listening. *Radiology*, 220 (1), 202-207. Retrieved October 10, 2008 from Ebsco Host database.

Sax, L. (2007). The Boy Problem. *School Library Journal*, 53 (9), 40. Retrieved August

31, 2009, from MasterFILE Premier database.

Sax, L.J., & Harper C.E. (2007). Origins of the gender gap: Pre-college and college

influences on differences between men and women. *Research in Higher*

*Education*, 48 (6), 669-694. Retrieved September 8, 2008 from Ebsco Host database.

Scottsdale Unified School District. (2006). What is Stanford 9. Retrieved July 6, 2009,

from <http://www.susd.org/district/assess/whatisstanford9.cfm>.

Taylor, D.L. (2004). Not just boring stories: Reconsidering the gender gap for boys.

*Journal of Adolescent & Adult Literacy*, 48 (4), 290-298. Retrieved September 16,

2008 from ERIC database.

University of California, Irvine. (2005): Intelligence in men and women is a gray and

white matter. *Science Daily*. Retrieved July 6, 2009, from

<http://www.sciencedaily.com/releases/2005/01/050121100142.htm>.

University of Pennsylvania Medical Center. (1999). Sex differences found in proportions

of gray and white matter in the brain: Links to differences in cognitive

- performance seen. *Science Daily*. Retrieved July 6, 2009, from <http://www.sciencedaily.com/releases/1999/05/990518072823.htm>.
- Van Langen, A. Bosker, R., & Dekkers, H. (2006). Exploring cross-national differences in gender gaps in education. *Educational Research and Evaluation*, 12 (2), 155-177. Retrieved September 8, 2008 from Ebsco Host database.
- Warrington, M. & Younger, M. (2000). The other side of the gender gap. *Gender and Education*, 12 (4), 493-508. Retrieved September 8, 2008 from Ebsco Host database.
- Whyte, J. (1986). *Girls into science and technology*. London: Routledge & Kegan Paul.
- Wiens, K. (2006). The new gender gap: What went wrong? *The Journal of Education*, 186 (3), 11-27. Retrieved September 8, 2008 from Ebsco Host database.
- Wisconsin Department of Public Instruction. (n.d.). WINSS successful school guide. Retrieved June 24, 2009, from <http://dpi.wi.gov/sig/index.html>.
- Xin, M. (2008). Within-school gender gaps in reading, mathematics, and science literacy. *Comparative Education Review*, 52 (3), 437-460. Retrieved September 18, 2008 from Ebsco Host database.

## Appendix A: Parent survey

## 6th grade parent survey

This research has been approved by the UW-Stout IRB as required by the Code of Federal regulations Title 45 Part 46.

**1. Select your gender.**

- male
- female

**2. Please select your age category.**

- 30 years old or below
- 31 - 40 years old
- 41 - 50 years old
- 50 years or older

**3. My child in sixth grade is:**

- Male
- Female

**4. I believe my child would earn a better grade on a project when he/she works in a single gender (all boys or all girls) group.**

- strongly agree
- agree
- disagree
- strongly disagree

**5. I believe my child would earn a better grade on a project when they work in a mixed gender (boys and girls) group.**

- strongly agree
- agree
- disagree
- strongly disagree

**6. I prefer my child work in single gender groups at school.**

- strongly agree
- agree
- disagree
- strongly disagree

**7. I prefer my child work in mixed gender groups.**

- strongly agree
- agree
- disagree
- strongly disagree

**8. It doesn't matter to me what type of gender based group (mixed or single) my child works in.**

- strongly agree
- agree
- disagree
- strongly disagree

**9. If your school offered single gender (all boys or all girls) classrooms on a voluntary basis.**

**Would you allow your son/daughter to participate in the single gender classroom?**

- strongly agree
- agree
- disagree
- strongly disagree

**10. To make an informed decision for your child-**

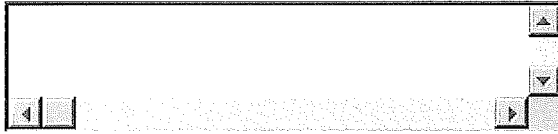
**What information (if any) would you like to receive from your school if it was considering single gender classrooms for your son or daughter to participate in.**

**11. (Answer only if you are against single gender classrooms)**

**If you are against single gender classrooms is there any information that could possibly change your mind for your son/daughter to be in this type of educational**

setting?

If yes, what would you like to know.



12. If you are in favor of single gender classrooms, please write the reasons why.



## Appendix B: Student Survey

6th grade student survey

This research has been approved by the UW-Stout IRB as required by the Code of Federal regulations Title 45 Part 46.

**1. Select your gender.**

- Male
- Female

**2. What type of group did you work in?**

- single gender (boys only or girls only)
- mixed gender (one boy and one girl)

**3. I like working in a group with all one gender.**

- strongly agree
- agree
- disagree
- strongly disagree

**4. It is easier working on a project with everyone in the group being the same gender.**

- strongly agree
- agree
- disagree
- strongly disagree

**5. It is easier working on a project with boys and girls together (mixed gender).**

- strongly agree
- agree
- disagree
- strongly disagree

**6. I think a finished project would earn a better grade while working in a group of all one gender.**

- strongly agree
- agree
- disagree
- strongly disagree

**7. I think a finished project would earn a better grade while working in a group of boys and girls together.**

- strongly agree
- agree
- disagree
- strongly disagree

**8. I would prefer to work in a group of all one gender.**

- strongly agree
- agree
- disagree
- strongly disagree

**9. I would prefer to work in a group of boys and girls.**

- strongly agree
- agree
- disagree
- strongly disagree

**10. I think our finished project would not be very good if I worked in group of all one gender.**

- strongly agree
- agree
- disagree
- strongly disagree

**11. I think our finished project would not be very good if I worked in a group of boys and girls (mixed gender).**

- strongly agree
- agree
- disagree
- strongly disagree

**12. It doesn't matter to me if I work with all one gender or a mixed gender group.**

- strongly agree
- agree
- disagree
- strongly disagree

### Appendix C: Parent Survey Cover Letter

My name is Jarod Dachel and I have your son or daughter in 6<sup>th</sup> grade this year. I am currently finishing my Master's Degree through UW-Stout. My degree program requires me to complete a research paper on a topic we chose several semesters ago. The topic I chose was single gender learning in the classroom. Part of my research is surveying parents of sixth graders and obtaining their opinions on single gender learning. The survey results will be put in my research paper and will help finish the research portion of it.

A link to the survey can be found on my teacher webpage. The address for my teacher web page is <http://school.k12.wi.us/vkms/teachers/jdachel>. The link is called "Parent survey".

I appreciate your assistance with taking this questionnaire.

Thank you,

Jarod Dachel

Appendix D: Parents Consent to Participate in UW-Stout Approved Research

**Consent to Participate In UW-Stout Approved Research (Parent)**

**Title:** Single Gender Classrooms: Information parents need to know

This project has been reviewed by the UW-Stout IRB as required by the Code of Federal Regulations Title 45 Part 46

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**Research Sponsor:**

Dr. Jim Lehmann  
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509-240-5029

**Description:**

**To complete the survey please go to the Viking Middle School homepage and click on the link that is called "6th grade parent survey". Both parents are encouraged to complete the survey.**

Parents of sixth grade students will be surveyed using surveymonkey.com. Their survey responses will gather thoughts and opinions on single gender learning/classrooms. The parent survey will focus on whether they would support single gender classrooms and if they believe it would be best for their son/daughter. The responses will be analyzed and utilized in a research paper written by the investigator. Please, only one person per household completes the survey.

To complete the survey please type in the following website and answer all questions:

**Risks and Benefits:**

The information gathered from parents can be used to help schools focus on what works best for students in regards to single gender learning/classrooms. As well as what parents want for the child.

**Time Commitment and Payment:**

A prompt response to this survey would be greatly appreciated. Your time is valuable and this survey will be analyzed and processed to find information parents need to know about single gender learning/classrooms.

**Confidentiality:**

Your name will not be included on any documents. We do not believe that you can be identified from any of this information. This informed consent will not be kept with any of the other documents completed with this project.

**Right to Withdraw:**

Your participation in this study is entirely voluntary. You may choose not to participate without any adverse consequences to you. Should you choose to participate and later wish to withdraw from the study, you may discontinue your participation at this time without incurring adverse consequences.

**IRB Approval:**

This study has been reviewed and approved by The University of Wisconsin-Stout's Institutional Review Board (IRB). The IRB has determined that this study meets the ethical obligations required by federal law and University policies. If you have questions or concerns regarding this study please contact the Investigator or Advisor. If you have any questions, concerns, or reports regarding your rights as a research subject, please contact the IRB Administrator.

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Appendix E: Students Consent to Participate in UW-Stout Approved Research

**Consent to Participate In UW-Stout Approved Research (Student)**

**Title:** Single Gender Classrooms: Information parents need to know

This project has been reviewed by the UW-Stout IRB as required by the Code of Federal Regulations Title 45 Part 46

**Investigator:**

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**Description:**

To the parent(s) of sixth grade students at Viking Middle School.

6<sup>th</sup> grade students in the investigator's U.S. history class will be surveyed using an online survey tool called surveymonkey.com. The survey will gather information from the students on their thoughts and opinions about single gender learning/classrooms.

The survey will be taken after the students worked in single gender as well as mixed gender groups on a U.S. history project. The survey will be given to students during part of a class period in the school's computer lab. The surveys will be anonymous and not affect the grade of the students.

**Risks and Benefits:**

The information gathered from students can be used to help schools focus on what works best for students in regards to single gender learning/classrooms.

**Special Populations:**

Any research involving minors must have a consent form signed by a parent/guardian. Please sign and date the attached consent form for your son/daughter to participate in the survey.

**Time Commitment and Payment:**

Students' responses will be analyzed and processed to find what they feel is best for their learning environment. The time needed to take this survey will greatly help the investigator with their research.

**Confidentiality:**

Your son/daughter's name will not be included on any documents. We do not believe that you can be identified from any of this information. This informed consent will not be kept with any of the other documents completed with this project.

**Right to Withdraw:**

Your son/daughter's participation in this study is entirely voluntary. You may choose not to have your son/daughter participate without any adverse consequences to them. Should you choose to have your son/daughter participate and later wish to withdraw from the study, you may discontinue their participation at this time without incurring adverse consequences.

**IRB Approval:**

This study has been reviewed and approved by The University of Wisconsin-Stout's Institutional Review Board (IRB). The IRB has determined that this study meets the ethical obligations required by federal law and University policies. If you have questions or concerns regarding this study please contact the Investigator or Advisor. If you have any questions, concerns, or reports regarding your rights as a research subject, please contact the IRB Administrator.

**Investigator:**

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**IRB Administrator**

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## Appendix F: Parent Responses to Question 10

Parents provided information they would like to receive from their school if it was considering single gender classrooms for their child to participate in.

1. Anything that was available.
2. The right to opt out of such a program.
3. I'd like to see results of studies regarding the academic and social effects of single-gender versus mixed-gender classrooms.
4. None at this time
5. I would like to know why they are considering the option. I would like to know what current research is out there either for or against single gender classrooms at the middle school level. I would like to know if I had to participate or if there would be a mixed gender class. I would like to know how the teaching would change if at all based on the gender.
6. I would want more information, perhaps a letter saying exactly what their reasoning is for this single gender classroom.
7. Why are you considering a single gender classroom, what benefits does it have? I would like to see some supporting facts that this would be a good move.
8. Stats regarding performance in single gender classrooms.
9. Would it be every class or just selected ones?
10. How would the children be for picked for the single gender classroom? It sounds like it could be a class of gifted and talented if we as parents were allowed to choose.
11. Information supporting the position that children do better in single gender

classrooms. Have there been tests, studies, etc supporting? More details on why this would benefit my child.

12. I would like notification of the process and timeline of trial. I would like to know the schools position on the issue and what positive/negative results the trials have had in other schools.

13. The rationale behind the creation of single-gender classrooms, what the school hoped to accomplish by doing so, what the reasons were for creating single gender classrooms, how they will be evaluated for effectiveness.

14. Evidence of programs successful track record.

15. Proven statistics that prove this is better for my child.

16. I would like to know where it has been tried in the past and what the outcomes were. Did the grades of the students improve? Did it improve for males and females?

17. The reasoning to why you would do this. Proof that it works, samples of other schools that have switched to show the effectiveness of it.

18. Meetings with families to outline the goals, objectives and reason for implementing this action.

19 Shouldn't it be about school level and ability. Split up maybe according to grades or level of learning - not gender.

20. Format and the reasoning behind it

21. Reasons why

22. I would want to know why they feel this would benefit my child and how it would make her school experience better. Would this really prepare her for the working world where she would be working with a mixed gender?

23. What are the supposed benefits. Nov 19, 2009 5:09 AM

24. I would hope there would be the option to keep her in a mixed gender classroom.

### Appendix G: Parent Responses to Question 11

Parents responded to question eleven only if they are against single gender classrooms. What information, if any, could possibly change your mind for your son or daughter to participate in this type of educational setting.

1. Part of my son's education is to learn to socialize. Putting him in classrooms where his classmates are all of one gender does not help him view females as equals nor does it help him learn how to talk to women. I believe that socializing with girls on a daily basis is essential to my son's development.
2. I think it is better to be diverse in a learning environment.
3. Additional research regarding the benefits.
4. I would want to know that the information presented was the same for both genders. If the opportunities were the same, but the method of teaching was different, I would consider same gender classrooms.
5. I would want to see actual statistics from other schools to see that this actually works and grades do improve from single gender classrooms. I think it is good, especially at this age for girls to deal with boys, and boys having to deal with girls. They think a lot differently.
6. Research that shows how it is beneficial.
7. I am sure single gender would work best for some children, but how every child learns is unique and should be taken on an individual basis. My job as a parent is to prepare my children for life circumstances. Removing half the population of a school would give him an unrealistic view of the world.

8. I would say I'm neutral about them, although I do think it would help my son be a more well-rounded person to be able to work with mixed gender groups. I would not be against him having one or two single-gender classes, but would not want his entire day to be spent with other boys.
9. My son already excels in all areas with mixed classroom. Not sure of any additional benefit.
10. I would like proven statistics that show me this would be better.
11. If it was proved to be effective. However, I feel they need to be mixed to teach children how to be respectful of the opposite sex, respect each other, and work together.
12. A Debate Forum, with moderator to consider the options and educational materials to highlight the option.
13. I believe if you take away the other gender it only makes curiosity greater and will create more troubles between or outside of class. You always want what you don't have.
14. What research has been done to show that a single gender classroom is a better learning environment?
15. What are the educational benefits to this. Is it proven that she will be a smarter student if she only studies with other females?
16. Probably not. We all grew up with boys and girls and survived just fine.... stop changing stuff.
17. Long term studies on behavior and grades during the year they are in this type of classroom setting and also their high school years to determine any affects.

18. Single gender is not the way it is in the real world. We are meant to co-exist. Teach those skills early.

19. I guess I am on the fence about this. I believe my son would do just fine in a single gender classroom if only it was lecture and projects done by himself. On the other hand, what I would be worried about is when they are paired with other males in the classroom who would not pull their weight on the projects. What would make me change my mind is if my son could have a hand at picking his partners so he knows who will/won't be putting in their share of the work.

### Appendix H: Parent Responses to Question 12

Parents responded to question 12 only if they are in favor of single gender classrooms. The question asked parents to write the reasons why they are in favor of single gender classrooms.

1. I think the opposite sex is a distraction at this age
2. Less distraction.
3. I wouldn't say I am in favor. I believe my child would perform the same in both situations. I believe it can be beneficial for some children if the teaching style is changed to reflect the different needs of the gender.
4. Especially when kids get interested in the opposite sex, it is nice not to have them distracted by them.
5. I would like to see if the learning is less distracted in a single gender grouping. I would believe there would be less interest to impress the opposite gender during learning which would leave more focus to the topic of the classroom. I think it is important to be able to interact with the opposite gender but in certain types of subjects it may be beneficial to leave the focus to the topic and see the results.
6. Sixth grade is when girls and boys start dating and becoming interested in the opposite sex. Single gender classes would eliminate distractions.

## Johnson, Anne

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**From:** Andrew King [kingan2@gmail.com]  
**Sent:** Monday, December 07, 2009 3:28 PM  
**To:** Johnson, Anne  
**Subject:** Re: fall 2010 admission

Spring 2010

On Mon, Dec 7, 2009 at 3:25 PM, Johnson, Anne <[JohnsonA@uwstout.edu](mailto:JohnsonA@uwstout.edu)> wrote:

Sure. Which spring 2010 or 2011?

### *Anne Johnson*

Student Status Examiner  
UW-Stout Graduate School

PO Box 790  
130 Bowman Hall  
Menomonie WI 54751  
715/232-1322 fax 715/232-2413  
[johnsona@uwstout.edu](mailto:johnsona@uwstout.edu)

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**From:** Andrew King [mailto:[kingan2@gmail.com](mailto:kingan2@gmail.com)]  
**Sent:** Monday, December 07, 2009 3:24 PM

**To:** Johnson, Anne  
**Subject:** Re: fall 2010 admission

Hi Anne,

I believe I have been accepted to graduate school for the fall of 2010. Due to some changes in work I was wondering if there is any way that I could change it to spring semester?

Andrew King

On Mon, Nov 23, 2009 at 11:03 AM, Johnson, Anne <[JohnsonA@uwstout.edu](mailto:JohnsonA@uwstout.edu)> wrote:

OK thank you.

*Anne Johnson*

Student Status Examiner  
UW-Stout Graduate School

PO Box 790  
130 Bowman Hall  
Menomonie WI 54751  
715/232-1322 fax 715/232-2413  
[johnsona@uwstout.edu](mailto:johnsona@uwstout.edu)

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**From:** [kingan2@gmail.com](mailto:kingan2@gmail.com) [mailto:[kingan2@gmail.com](mailto:kingan2@gmail.com)]

**Sent:** Monday, November 23, 2009 10:55 AM

**To:** Johnson, Anne

**Subject:** Re: fall 2010 admission

Correct

Sent from my BlackBerry Smartphone provided by Alltel

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**From:** "Johnson, Anne" <[JohnsonA@uwstout.edu](mailto:JohnsonA@uwstout.edu)>

**Date:** Mon, 23 Nov 2009 10:50:58 -0600

**To:** <[kingan2@gmail.com](mailto:kingan2@gmail.com)>

**Subject:** fall 2010 admission

Andrew:

You are seeking fall 2010 admission not spring admission correct?

*Anne Johnson*

Student Status Examiner  
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