



GIRLS' ACADEMIC PERFORMANCE: SINGLE SEX SCHOOLS VERSUS COEDUCATIONAL SCHOOLS

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ABSTRACT

Research studies had empirically shown that school systems affect the students' academic performance. This study aims to examine girls' academic performance in single sex versus coeducational schools and find out the best schooling system which enhances school girls' academic performance in Sri Lanka. The study used a qualitative research design. One single sex school and one coeducational school were selected from the Central Province. Applying a semi-structured interview method, eight interviews were conducted consisting of two ordinary level female students, one teacher and one mother selected under the convenient sampling method from each school. All the collected data were analyzed using thematic analysis. Results of the study highlighted that, in both schools', the academic performance of female students were differently influenced by their involvement in extracurricular activities, peer relationships, subject related knowledge, education aspirations etc. Mothers reported that they usually encourage their daughters about their academic work regardless of whether the school is a single sex or coeducational one. Instead, the mothers are more concerned about the popularity of the schools. Teachers stated that their teaching experiences and guidance are different when they teach in single sex and coeducational schools. Both teachers reported that the girls who study in single sex schools achieve better academic performances than the girls who study in coeducational once. In conclusion, we can conclude that both systems work well in certain situations. Hence, we still do not have enough evidence to come to a precise conclusion that single sex education is better than coeducation or vice versa for school girls in the Sri Lankan context.

Keywords: girl; academic performance; single sex education; coeducation

INTRODUCTION

The efforts of designing the most appropriate learning environment for students' academic performance frequently leads to discussions of single sex versus coeducational schooling. Single sex education refers to schools at the elementary, secondary, or post-secondary levels in which males or females attend school exclusively with members of their sex (U.S. Department of Education, 2005). Coeducation is defined as schools where both boys and girls attend school together (Herrick, 2009). The students' academic performance is the outcome of their education and it plays an important role in producing the best quality graduates who will become great leaders and human resources for the country thus being responsible for the country's economic and social development (Ali et.al, 2009). Past research studies show that both of these schooling systems have different influences on the students' academic

performance. Hence, students' academic performance based on single sex versus coeducational has always been a topic of interest for researchers.

The history of the school education system in Sri Lanka indicates a mixed system with both single sex as well as coeducational set up. In the past, most of the private schools were single sex whereas the government schools followed a coeducation system and the demand was for private school education. This situation changed with the introduction of the central colleges which began to be popular among people. However, with the collapse of the central colleges, single sex schools again became dominant in society. Today, even though most of the schools in the country are coeducational schools, single sex schools are again dominating the society. Research studies show that students' academic performance depends on many factors such as learning facilities, gender, age differences and school type, etc. (Hansen, 2000; Karunanayake, 2000; Karunanayake & Vimukthi, 2020). So, school type can be taken as one of the influential factors for the students' academic performance.

Some believe that coeducational schools benefit boys, because girls have a "civilizing" effect on the otherwise unruly behavior of boys, especially in the early years of secondary school. Meanwhile, many parents see boys as distracting their daughters from concentrating on their studies, so they prefer girls to attend an all-girls school where they are not faced with this issue. According to the teachers' perspective, most of the time, boys don't give girls a chance to participate in academic and extra-curricular activities because boys are known to steal the attention of teachers. Also the children who are attending single-sex schools tend to perform better than their co-educated peers across several educational outcomes (Woodward et al., 1999). When these facts are examined critically and deeply, we could understand that there can be significant differences in female students' academic performance depending on whether they attend a single sex school or a coeducational school in Sri Lanka. Many researchers have identified demographic, socio-economic, family, and school factors as variables contributing to female students' academic performance (Karunanayake & Vimukthi, 2020). Additionally, the attending school type also can be a main influential factor for the girls' academic performance. When studying this topic it's very important to garner ideas, experiences, attitudes, and perceptions of not only students but also parents and teachers. That information may support a clear and deep understanding of the Sri Lankan school girls' academic performances in single sex versus coeducational schools.

LITERATURE REVIEW

Girl- Generally, a girl is a female under 18 years old. Some dictionaries state that a girl is a female human from birth through childhood and adolescence until attainment of adulthood when she becomes a woman. The term girl may also be used to mean a young woman and is often used as a synonym for daughter (Dictionary.com, Merriam-Webster Dictionary).

Academic Performance- There wasn't an exact definition of academic performance. But generally, it means the knowledge and skills that students have mastered in a subject or a course. It's a measure of how well students have performed in the various assessment items set for them based on some educational criteria determined by professional educators. Through assessment items such as essays, tests, and viva examinations, students' performances are ranked as to the educational standards that they have reached -pass, credit, distinction, high distinction, and so on. These educational standards may be recognized as satisfying the minimum standards required for admission for further studies in domestic and international institutions (Lee, 2019; Karunanayake, 2005).

Single sex education- The U.S. Department of Education defines single-sex education as “education at the elementary, secondary, or postsecondary level in which males or females attend school exclusively with members of their own sex” (U.S. Department of Education, 2005).

Coeducation- Coeducation is an educational system in which students of both sexes attend classes together (Collins dictionary). More progressivist, democratic groups approach co-education with concepts such as human rights, democracy, equality, and justice, which again refers to their political understanding (Mediha, 2017). As stated by Okçabol (2013), “those who maintain their conservativeness to women may object to co-education, because co-education is a product of an understanding which sees men and women equal, an outcome of democratization, a prerequisite of being a citizen, and an indicator of modernity. Whether they are male or female, those who receive co-education have a higher tendency to see themselves as equal”

School based factors affecting to the academic performance of girls- School based factors affecting girls’ academic performances are wastage of time, romantic relationships, Lack of matrons, shortage of female teachers as role models, lack and poor provision of physical facilities, hostels, social practices, and school timetables (Kihombo, 2017). There should be more guidance and counseling in schools, increase bursaries, invitations for resource persons to talk to girls, mentoring relationships between girls and female teachers, and separation of girl’s classes from boys (Dorothy, Chemisto, & Musani, 2015).

Male and female ex-students of mixed schools in Ireland were more positive about the personal and social development aspects of their schooling (Hannan & Shortfall, 1991). However, these ideas are refuted by Kitetu (1998) who did a research project from 1995 to 1998 in secondary school classrooms in Kenya. His research showed that girls and boys engaged in different activities within the same lesson. Girls show poor involvement in activities requiring physical tiredness and there was also differential treatment by teachers for girls and boys. Economic factors affecting girls’ academic performance were poverty levels, system of giving bursaries, and ignorance of available resources. The recommendations made were increased bursaries, inviting resource persons to talk to girls, providing basic needs, and organizing parent-teacher meetings to discuss various issues affecting the girl student. The research authors believe that the teachers, parents, and other education stakeholders should strive hard to change the perceptions that girls cannot do well in mixed schools.

Girls are not weaker academically compared to boys (Ng’ang’a et.al, 2018). Yet, most girls have negative attitudes towards school; most teachers have positive attitudes towards girls’ education; though others feel that girls need more support than boys. The teachers also believe that girls’ illicit relationships with teachers negatively affect girls’ performance and 51.7% of the girls portrayed a negative academic self-concept (Makworo, Wasanga, and Olaly, 2014). Single-sex schools should remain an option and schools should make careful efforts to ensure that they present curriculums for both boys and girls that equally value both traditionally masculine and feminine endeavors (Guarisco, 2010).

Empirical evidence supporting single-sex education is rare. More often than not, research on single-sex schools is heavily qualitative. Many studies employ testimony from administrators, teachers, students, and parents to support the single-sex movement. From the beneficial point of those working within and experiencing the single-sex context, the positive effects are apparent. Hubbard and Datnow (2005) conducted interviews with student and staff in California schools which offer single-sex education. Their research revealed that both groups

felt that a major contribution to student success was the freedom from distraction from the opposite sex. In 2008, a U.S. Department of Education study found that both principals and teachers believed that the main benefits of single-sex schooling are decreasing distractions to learning and improving student achievement (Hutchison & Mikulski, 2012). As part of a longitudinal study involving interviews with teachers and students of Australian secondary schools, which had been single-sex schools and then converted to co-ed schools over a two-year period, indicated that girls appeared to do better socially in a single-sex class (Jackson & Smith, 2000). Teachers who worked in single-sex classes and schools reported fewer disciplinary problems (Gurian & Henley, 2001), and administrators and teachers in Florida single-sex schools reported dramatic improvement in student performance (Isensee & Vasquez, 2012).

The Strategic Counsel, a leading Canadian research firm conducted a ground breaking study on co-education in Canada (2006). These national survey findings reveal that 79% of Canadian parents with children in independent co-ed schools genuinely agree that these schools better reflect the diversity of society and 79% believe they better prepare students to eventually enter the workforce. Also, 71% agree that these students are better prepared to succeed in post-secondary education. Canadian research reveals that students at independent co-ed schools feel comfortable about who they are and have a healthy and positive attitude and self-image. Yet, LePore, & Warren, (1997) states that coeducation may be inimical to both academic achievement and social adjustment for adolescents. Supporting this statement a U.K. research found that there is a tendency for children attending single-sex schools to have greater success in the School Certificate examinations, higher Burt reading scores, and greater school retention, less likelihood of leaving school without qualifications, and less exposure to unemployment than children attending coeducational school (Woodward, Fergusson, and Horwood, 1999). These differences were evident for both boys and girls.

Researchers in the sociology of education have advanced several theories to explain observed social, economic, cultural, and attitudinal inequalities in educational achievement among secondary school students in capitalist societies (Little, 2013). A study in Australia indicated that a mother's education was the most important independent predictor of the type of school a girl attended. In one state in Australia, attendance at a girls' school was a significant predictor of a girl's exposure to key social influences, her enrollment in a science course in year 12, and her academic achievement. In another state, however, the sex composition of the school did not affect academic achievement or selected antecedents (Carpenter, and Hayden, 1987). Girls who attended single-sex high schools have less traditional views about gender roles, a more positive self-concept, and put a greater emphasis on academic or career success than girls who attended coeducational high schools (Kristen, 2010; Karunanayake & Vimukthi, 2020). Female students in single-sex environments appear more motivated when it comes to their studies and more dedicated to achieving the high academic goals they set for themselves (Sax, 2009). Most of the studies above clearly pointed to differences in single sex and coeducational schools and tend to tilt towards the benefits of same-sex schooling for girls. But, there are no clear winners because the findings are mixed.

METHODOLOGY

The current study used Qualitative research design and attempted to examine the girls' academic performance in single sex schools versus coeducational schools and find out the most appropriate schooling system which enhances the academic performance of schoolgirls in Sri Lanka. The study used a convenient sampling method. Eight interviews were conducted consisting of two ordinary level female students, one teacher and one mother each from a single sex school and a coeducational school which are situated in the Central

Province of Sri Lanka. Semi structured interview was selected as the data collection method for this research and using this method, the researcher attempted to explore experiences, ideas, behaviors, perspectives, interactions, views and incidents about the contribution of attending a particular school system to increase girls' academic performance. The collected data were analyzed by using the thematic analysis method. The study followed APA research guidelines.

RESULTS

The study discovered that the girls who attend the single sex school tended to perform better than their coeducational peers across several educational outcomes. Furthermore, the results noted that engaging in extracurricular activities and overall attitude about attending school positively influenced the enhancement of female students' academic performance in the single sex school rather than the coeducational school. According to the obtained data, in comparison to the single sex school girls, coeducational school girls had very negative relationships with their peers. Attending school was not a significant factor for the girls' subject related knowledge. There was a significant difference in the educational aspirations of schoolgirls in both types of schools. Overall, single sex school female participants showed very positive attitudes about their self-image but both co-educational female participants have mixed feelings about their self-image. There is an appreciable difference in female students' attitudes about gender stereotyping among both schools. Also, the study found that the teachers' experiences and guidance were positive when they teach in single sex schools rather than coeducational ones. In addition, mother and daughter relationship was positive in both schools. Mothers were more concerned about the popularity of the school and the ease of traveling to the school.

DISCUSSION

Discussion of Ordinary Level Female Students

The influence of Extracurricular Activities on the academic performance of school girls

The main objective of this current study was to examine the most appropriate schooling system which enhances the girls' academic performance. Engaging in extracurricular activities seems to play a major role in the enhancement of students' academic performance. According to the data, engagement in extracurricular activities are different from one school to another. Single sex schools encourage female students to engage in extracurricular activities and the extracurricular activities seem to support an improvement in their academic performance. Participants emphasized that the teachers never allow them to not attend extracurricular activities because they give the same importance not only to academic work but also to extracurricular activities. Engaging in extracurricular activities improved not only their academic performance but also soft skills and leadership skills. The teachers who teach in the coeducational school allow students to miss extracurricular activities. This behavior helps single sex school female students' broaden and improve knowledge, skills, and abilities compared to their coeducational peers. Therefore, the government should implement strategies and take action to promote extracurricular activities in all schools to improve all student's academic performance, soft skill development, and leadership skills.

The Influence of Peer Relationships for the academic performance of female students

Friends and other peer relationships can motivate students to engage in academic as well as in extracurricular activities. The single sex school girls have a better chance to select good friends who help them to enhance their career. They help each other. But it does not seem to

be the same at the coeducational school. Both of the coeducational school girls emphasized that their peers negatively influenced their education. The data revealed that most of the female students at the coeducational schools are jealous of their female peers. One female student who studies in a coeducational school emphasized that she has more male friends than female friends because females are very jealous and sabotage their activities. Because of opposite sex attraction, coeducational schools where both male and female students study together offer more opportunities to begin romantic relationships. But it is not possible in single sex school because the opposite sex peers are not present. Hence, they have fewer distractions in achieving their academic goals.

Subject Related Knowledge and Girls' Academic Performance

The analysis of data demonstrate that a student's desire for a particular subject is differently influenced according to the teachers' interaction and teaching style for students of both single sex and coeducational schools. This was especially true for Mathematics, Science, and English, three subjects which directly influence a female student's overall academic performance. Therefore, teachers should be made aware of their impact on female student's academic performance and they should be made aware as to how to have positive interactions with students and the teaching methods that the students prefer the most.

The Influence of the Girls' Education Aspiration for their Academic Performance

Female students who studied in the single sex school felt comfortable exploring non-traditional subjects such as mathematics, advanced sciences, ICT, engineering, etc. This is one example of how students will break out of their stereotypical roles and behaviors when they are left to their own devices. Single sex education encourages students to be fearless, to be curious, and to be enthusiastic - in short, to just be them. In the coeducation system normally boys perform well in subjects such as math, physics, ICT, engineering, etc. compared to the females. As a result, female students of coeducational schools tend to believe that such subjects are meant for boys and not for them thereby limiting their career choices. The coeducational students in this study also confirmed this bias.

How Female Students' Self-Image Influence their academic Performance

The study showed that there was a significant difference in self-image between single sex school girls and coeducational school girls which influenced their academic performance. Single sex school's female students have a positive self-image. These girls drop their shyness and begin to take risks in a single sex setting. Both of the students were open and willing to accept any challenges given to them at school. There are only female students in a girls' school. Therefore, every girl needs to be dedicated to her school activities. Girls who are in a coeducational school try to control their behaviors due to the presence of male students because they believe that girls should properly behave in front of the boys. This necessarily makes them believe that certain behaviors are negative if conducted by them. So when compared to the single sex school girls, coeducational school girls have negative self-image in certain areas resulting in lowered academic performance.

The Impact of Gender Stereotyping for the Academic Performance of School Girls

The study found that there is an appreciable difference in female students' attitudes about gender stereotyping among both single sex and coeducational school. Single sex school participants believe that both their male and female teachers support them to achieve the highest level of their academic potential. But a possible problem of the coeducation system is the teacher bias. Both male and female teachers tend to be biased towards male students and female students. The bias could be positive or negative but mostly positive towards male

students and negative towards female students resulting in lowered academic performance by female students in coeducational schools.

Girls' Overall Attitude about Attending School

The study showed that both female students from the coeducational school possessed negative attitudes about their school whereas both of the female students in the single sex school possessed a positive attitude about their school. Most importantly, both coeducational female students mentioned that if given the chance they would gladly change their school to a single sex school. Both of the single sex school girls mentioned that they are only willing to change their school to another single sex school that is better than theirs.

An issue observed in the coeducation system is that certain girls have to face harassment from the boys in the classroom. These harassments adversely affect the psychological development and the self-esteem of the girls. But, in the single sex education system, those type of gender based harassment is not possible. This helps girl students from single sex schools to freely focus on their education and increase their interest in attending school. They feel safer than the female students who study in a coeducational school.

Discussion of the Teacher Participants

Effect of Proper Guidance

The study identified the differences in teachers' guidance between single sex and coeducational schools. According to the data collected, single sex school teacher conducts proper guidance towards every student. But, it is not the same in the coeducational school. Most of the time, male students tend to be aggressive and mischievous in the classroom and disturb everyone. Therefore, teachers pay less attention to female students in coeducational schools because they think that female students can manage their academic work by themselves but not male students. But, because they focus more on male students, teachers in coeducational schools do not provide proper guidance for female students. It may negatively influence the academic performance of girls in coeducational schools.

In the single sex girl's school, teachers always try to attend their class period and they pay special attention to the girls who are not at the expected level. But, the coeducational teachers' attention is preoccupied with the male students because they have to control the boys. Furthermore, both school teachers believe that girls who study in single sex schools have more academic knowledge and skills than coeducational school girls. Therefore, it is clear that there is a discernible difference in teachers' guidance and that it impacts the girls' academic performance positively in single sex schools and negatively in coeducational schools.

Teachers' Experience

The study identified different experiences of teachers in single sex and coeducational school. The coeducational school teacher emphasized that some female students in the coeducational school are shy and feel uncomfortable in expressing their ideas, asking questions, participating in discussions and extracurricular activities, etc. because of the presence of male students. But, it is not the same in the single-sex school because those obstacles are automatically removed. This enhances academic performance and other soft skills of the single sex school's female students. Furthermore, according to the coeducational teacher, single sex school girls have more creativity, soft skills, and communication skills compared to coeducational school girls. Yet, female students from single sex education system have fewer opportunities to interact and communicate with the opposite sex. Hence,

they may hesitate and feel uncomfortable expressing their ideas when they have to associate with people of the opposite sex. This may negatively affect their working life.

Unnecessary romantic relationships between girls and boys at a younger age are another problem that is encountered in the coeducational system. Students with such relationships pay more attention to their relationships and tend to overlook their academic work. In the single-sex education system opportunities for such relationships are less. Therefore, learning is higher in female students who study in single sex schools.

Discussion of the Parent Participants

Mother and daughter relationship

The mother and daughter relationship is a considerable factor that influences to enhance the academic performance of female students. The study indicated that there was no difference between the mother's encouragement in both single sex and coeducational schools. Both mothers had positive relationships with their daughters. They encouraged their daughters and gave advice for their success regardless of whether their daughter is attending a single sex school or a coeducational school.

Mother's attitude about school type

In Sri Lankan society parents generally do not consider whether the school is a single sex one or coeducational one when admitting their children. Instead, they are more concerned about the popularity of the school and the ease of traveling to the school regardless of whether it is a single sex or coeducational one. That is why there is great competition for popular schools that are nearby. The findings of this study showed that the mother whose daughter attended a single sex school had a mixture of positive and negative attitudes about the school type. But, the mother whose daughter attended a coeducational school had a positive attitude about the school type. The data gathered from both mothers indicated that they accepted that both male and female students should learn in the same school. If a female student is trained to work together with the students of other sexes from their childhood they understand how to behave well with each other. Girls understand the nature of the boys and boys understand the nature of the girls. This will help them to successfully navigate with each other in their personal and work lives. Girls from single sex education do not have a clear understanding of how boys think, how they act in a particular situation, how they handle problems, etc. They expect a similar behavior to theirs from boys. This situation is worsened if they do not have a sibling of the opposite sex or do not associate with relatives of the opposite sex of a similar age. Therefore, the mother of the coeducational student is happy about her daughter attending a coeducational school. The mother of the single sex school female student is happy that her daughter can concentrate on her academic performance but not happy that she doesn't get to interact with boys.

CONCLUSION

The findings of this study indicated that girls who attended single-sex schools tended to perform better than their coeducational peers across several educational outcomes. They displayed a positive self-image, self-confidence, and leadership skills and they liked to enter traditionally male dominated fields at a higher rate than the girls who attend a coeducational school. Furthermore, this study showed that girls in single sex schools are more likely to act outside of traditional gender roles than coeducational ones. In the coeducational system, boys interrupt learning in the classroom. But, on the other hand, these coeducational school girls understand the nature of the boys and this would help them successfully navigate with each other in their personal and work lives. Even though schools can be divided

according to gender, youth, and adults of all sexes have to live together in the world outside of the educational institutions.

By studying the results of this study the researchers can conclude that both systems work well in certain situations and for certain segments of schoolgirls. Moreover, the current study is a qualitative study and the results cannot be generalized. Therefore, we still do not have enough evidence to come to a precise conclusion of whether single sex education or coeducation is better for school girls. More research based on the findings of the current study, especially quantitative research, is needed to answer that question.

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