# Issue of single sex and coeducational physical education 

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There has been a constant debate surrounding the idea as to whether or not students would benefit more from a single sex environment or mixed sex environment for education (Mael, 1998). This debate has led to extensive research into this issue whereby some researchers have supported singlesex classes while others have supported mixed-classes - the two nature of classes have been particularly discussed in relation to issues such as socioemotional, academic, as well as interpersonal development (Harker, 2000). The purpose of this study is to investigate whether it is advantageous to run single-sex physical education classes as opposed to coeducational classes, in which case the relationship between several variables will be examined. In addition, the study attempted to delve into the impact of these variables upon the effectiveness of physical education learning for girls. The study involved both qualitative and quantitative study techniques, whereby, a total of 50 female students were interviewed. To collect more information, the researcher repeated this process on 10 female physical education teachers. Questionnaires were designed and administered to both the female students and the teachers, in which case the questions that were asked were both open-ended and closed-ended.

To ensure informed participation, Cone and Foster (2003) pointed out that it is critical to seek informed consent from the participants and also ensure their confidentiality. In this view, the researcher will ensure that a clear, informed and voluntary agreement is made by the participants (Ellis and Earley, 2006). The kind of informed consent, which will be used in this study, will have to meet specific requirements including a statement that the study is about research, specification of any experimental procedures, a
description of the procedures that will be involved, an explanation of the purpose of the research, and details of the expected period of participants' involvement (http://www. strath. ac. uk, accessed 22. 02. 2013).

Analysis of the results of the interview presented quantitative variables for establishing the girls' effectiveness for learning football skills, which was statistically significant, meaning that single-sex environment was preferred. Similarly, the conclusion from the qualitative data was that single-sex physical education environment is a better learning environment, as it offers a more supportive and comfortable environment for girls than a coeducational environment (Elwood and Gipps, 1999).

To review the differences of female participation levels in both single sex PE and mixed sex PE

## Introduction

The issue of single-sex and coeducational physical education is a grand debate and has no sign of ending any time soon. Numerous research regarding the pros and cons of coeducational against single-sex has been undertaken in the UK and the world at large, though its results have been largely mixed and unclear (Mael, 1998). In other words, the results of these studies and reviews has been lacking of consistency or strong evidence about the disadvantages and advantages of signal-sex classes over coeducational classes (Mael, 1998). Nevertheless, one of the stronger suggestions is that, when evaluating the effectiveness of either single-sex or coeducational classes, it is important to assess both the social and and the cultural context of the school environment (Smithers and Robinson, 2006).

This study is aimed at identifying the all-round debate that concerns the issues of social cultural environment including learning achievement, curriculum design, social issues, and the experience of children in learning physical education among many others.

Historically, the issue of gender and education has led to a perception of schools as crucial roots of fostering development of equal society and social change, whereby a social situation for the women is perceived to be less repressive (Salomone, 2004).

Nevertheless, the approaches to the question of single-sex physical education can be taken from different perspectives. In this regard, some academic sources provide that, in order to prepare women to stand out academically, it is also important to make sure they take part in physical education, a subject which is becoming compulsory in schools around the world (Oloffsson, 2007). Although this can only be successful if issues of structure, and conditions of physical education classes are put into consideration while designing an all inclusive educational curriculum. Unfortunately studies show that it is a constant battle to get girls to even participate in physical education as shown by Evans (2006) who states that $35 \%$ of girls do not enjoy PE compered to a mere $17 \%$ of boys.

Most importantly, it is argued that girls in single-sex schools can excel academically simply if the lesson is structured to encourage and motivate girls to acquire specific skills, even in areas that are perceived to be male domain, including the sciences (Salomone, 2004). It is also argued that schools should be symbols of equality and environments that can provide
students with early knowledge and experiences of gender equality in order to avoid nurturing a society that propagates unequal gender patterns (Warrington and Younger, 2001). In respect to gender equality, the position has been that coeducational classes are a preparation for a society that values gender equality, however it is stated by Hoffman et al. (2008) that females experience gender inequality from a young age as males receive more direct attention from teachers from nursery through secondary school. Nevertheless, provided that gender inequality in most societies is natural, it is important to instill the virtue of gender equality and awareness in the stakeholders including teachers to avoid the reproduction of gender inequity in academic training (Salomone, 2004). The current educational environment focuses on the achievement of qualifications such as GCSE's and general academic success. However, the educational experience of students throughout their school years must not be ignored.

Many researchers have shown how girls' experiences within a coeducational PE environment is difficult for them in a number of different ways. For example, it was suggested that teachers intellectually motivated boys and rewarded girls for exhibiting ' suitable' feminine characteristics. Evans (2006) also comments to suggests that girls feel self conscious when par taking in physical activity as being ' sporty' is not considered to be a desirable feminine trait.

It was also found that the boys had a tendency of dominating the classes, in which case the teachers supported their domination by taking their contributions more seriously than that of the girls. Howe (2001) suggests that this is due to sports being viewed as a ' man's' game possibly resulting https://assignbuster.com/issue-of-single-sex-and-coeducational-physicaleducation/
in teachers over looking girls contributions. Notably, the tendency of boys to dominate classes does not affect all boys and at the same time some girls are not typically silent, but exhibit the behaviour of boys.

More recent research has shifted focus towards the differences within and between gender groups. The way that students experience schooling is affected by factors such as social class, ethnicity and race; however, the patterns of gender identified in early research is carried on throughout coeducational schools in the present day. This, however, does not mean that the educational system in single-sex environments is entirely positive - thus showing why this study is necessary to explore this rather undisputable issue.

The issues of coeducational and single-sex physical education classes has been largely researched but the long-term social implications have been scarcely studied - this study will explore this aspect in an extensive view. Notably, most of those who support coeducational classes can encourage males and females to work together constructively. In other words, coeducational set ups proponents suggest that the classes should be structured to mirror a ' real-life' situation.

In contrast, the proponents of single-sex class argue that, since the female classes do not reflect a ' real-life' situation, it is only important to have single-sex classes. In other words, they propose that, since the western societies are male-dominated and since women plays a second fiddle when it come to opportunities, power, and payments amongst other issues - there is a need to separate females and males classes. It is, therefore, important for
the students as well as the educators to change this wave of inequality in schools and physical education in particular. Those who have supported single-sex have maintained that single-sex educational environment can present girls with an opportunity to deliver themselves from the strings of discrimination and get an opportunity to prove that they do not have to play a second fiddle to boys.

The little evidence that has been presented in relation to the long-term social implications of mixed and single-sex physical education classes has not shown any significant discrepancies in regards to personal development differences between males and females in coeducational and single-sex environments. However, on overall, more questions have been left unanswered in respect to this issue. Therefore, this study investigated whether it is advantageous to run single-sex physical education classes as opposed to coeducational classes, in which case the relationship between several variables was examined. In addition, the study attempted to establish the impact of these variables upon the effectiveness of physical education learning for girls.

## Literature review

A mixed-gender Physical Education (PE) has sparked a lot of argument amongst many stakeholders including researchers and educators (Issues, 1999), most of whom are interested in promoting the learning environment for the females so they can be educated effectively just like the male students (Carpenter \& Acosta, 2001). Many of those who have studied this area have thought that integration of male and females during PE lessons would remove the problem of discrimination since both genders would https://assignbuster.com/issue-of-single-sex-and-coeducational-physicaleducation/
receive similar instructions as well as the curricular content (Griffin, 1983). However, many other researchers have contradicted this observation because they found that mixing girls and boys during PE lessons did not amount to equitable treatment for girls (Chepyator-Thomson \& Ennis, 1997; Derry \& Phillips, 2002; Hutchinson, 1995).

In a qualitative study conducted by Griffin (1983; 1984), integration of both genders during physical education was presented as neither conducive nor equitable for girls and some boys. The capacity of girls to learn in such environments was inhibited by the behaviuor of boys including display of physical contact, verbal harassment and taking of girls' turns (Griffin, 1983). On the other hand, girls did not inhibit the performance of boys and actually opted to stay away from them (Griffin, 1983). Another highly influential factor that affected the mixed-gender classes is the manner in which boys controls the activities during the PE classes, hence rendering the girls more or less inactive (Chepyator-Thomson \& Ennis, 1997; Derry \& Phillips, 2002). Furthermore, girls have a tendency of losing enthusiasm during interaction with their peers in the course of physical education - this makes them to develop a fearing attitude and a negative feeling towards the interactive physical activity, which in effect reduces their level of participation (Kunesh, Hasbrook, \& Lewthwaite, 1992). Furthermore, the settings of physical education classes are important in shaping the attitudes of girls towards participating in physical education.

Researchers such as Sallis and McKenzie (1991) have agreed that the participation in physical education, by adolescents, is largely influenced by positive learning experiences. Research studies have also disclosed that girls https://assignbuster.com/issue-of-single-sex-and-coeducational-physicaleducation/
are increasingly ending their participation in physical activities at the high school level (Jaffee and Ricker, 1993; Douthitt, 1994). The level of girls' participation in physical activities is influenced by factors such as selfesteem, level of enjoyment, the time of engaging in learning, perceived athletic competence, and the health benefits gained by taking part in the physical activities (Brustad, 1993; Jaffee \& Manzer, 1992).

The debate by different researchers regarding the suitability of mixedgender PE has been highlighted by many researchers, with Koca (2009) reporting that many researchers have found that mixed-gender PE provides an opportunity for the learners to interact socially and share positive ideas. However, on the flip side of the coin, the likes of Olafson (2002) supported an argument that the perceived social interactions during mixed-gender PE classes is the same factor that makes adolescent girls to avoid taking part in the coeducational classes. In a study conducted by Treanor, Graber, Housner and Wiegand (1998), which aimed at interviewing the students to find their opinion regarding the best approach to physical education; that is, the one between coeducation or single sex physical education is better and most suitable. The findings of this study were that a majority of the students prefers single-sex classes over the mixed-gender classes. Nonetheless, Treanor, et al. (1998) noted that the views of the students alone could not be relied upon to resolve that single -sex classes are the most suitable for middle school physical education especially because their views are biased and lack any credible ground. Although most of the students implied that their preference for single-sex classes was based on issues such as better behaviuor, more practice time, less fear of injury and better competition,
most of their opinions was not subject to their personal conviction, but on gender-bias attitudes. Derry (2002) echoed the findings of Treanor et al by supporting that an awesome $75 \%$ of the students interviewed pointed out single-sex classes as their preferred mode of classes. Derry (2002) also added that 84\% of the girls that participated in single-sex physical education classes maintained that they liked such an environment and would like to continue with it next time.

Ideally, it is known that as students approach their adolescent age, they become less physically active. This problem has been cited as the major determining factor in the attitude of students before they enter the adolescent age and after they are past the adolescent age (Harmon \& Ratliff, 2005). The results as presented by Harmon \& Ratliff (2005) shown that the percentage of girls who are active in physical exercises decreased from 31\% in the 9 th grade to $17 \%$ in the 12th grade. Similary, Treanor, et al. (1998) found that males have a relatively high level of participation in physical education in all the three middle school grades. To add to this, Felton et al. (2005) found that 45\% of the 12th grade girls and 67\% of the 9th grade girls were found to take part in an energetic physical activity - about 20 minutes for at least three days per week.

Whitlock (2008) disclosed that indeed adolescence is a stage of dramatic change and hence it is a period that a young girls undergoes a lot of hardships. In this stage, girls undergo a dynamic and developmental life when they make very important decisions regarding their typical behaviours such as physical activity, diets, use of tobacco and alcohol, and participation in social activity among other aspects of life that shapes their health and https://assignbuster.com/issue-of-single-sex-and-coeducational-physicaleducation/ wellbeing up to the time they become adults (Whitlock, 2008). Essentially, developmental changes, under which the young adolescent girls undergo a traumatic experience, cause them a lot of trouble - for example, because of sexual harassments and incidents of upsetting remarks that is common in environments of mixed-education (Derry \& Phillips, 2004). Some of these facts were affirmed in Olafson's (2002), where one of the girl's reveled that , " like they don't know the emotional pain they cause when they call you bad names" (p. 2). This student was complaining about the way she is usually offended my the male students who use offensive names when referring to girls.

Olafson (2002) found that the tendency of girls to skip physical education is mainly because they have an attitude that such activities are totally embarrassing. The reason for this is because the girls kept complaining that the boys used offensive language and insulted them severally hence they would rather keep off such activities. Olafson also realised that the girls behaved in a strange manner in order to avoid attending the PE classes, including presenting notes from their parents claiming that they have been told not to attend PE classes, refusing to put on gym outfit, and skipping classes altogether.

The male students have been found to mock girls in respect to their body type and also putting them, something that really annoys girls. Constantinou, Manson, \& Silverman's (2009) studied the behaviuor of girls when attending physical education classes and found that boys show no regards to the girls' abilities but rather belittle and disrespect them. Actually,
they found that the offensive acts that were perpetrated to humiliate girls were not common amongst the boys themselves.

Several studies have associated self-esteem with physical education - It has been suggested that thegirls's participation in physical activities is largely as a result of self esteem. Eriksson, Nordqvist, and Rasmussen (2008) defines self esteem as the extent to which individuals like themselves as persons. A commonly determining factors of the girls' self-esteem when they are in their adolescent age includes their body type and size - this determines whether their self -esteem is positive or negative. Some of the female students in Olafson (2002) claimed that they avoid physical activities at school because they have a negative feeling towards showcasing their bodies especially in front of male students. In fact, it has been found that girls who participate in physical education lessons struggle to improve the outlook of their body so they can have the kind of body type and image that they perceive to be perfect. The girl's were found to have perfected an image of favorable body types in their minds and also observed to have developed a habitual tendency of evaluating the body of their peers through constant gazes (Olafson, 2002). It was ideally learnt that girls were expected to be always in control, to be graceful, and generally to be able to do at least all things. It was expected the girls should stay composed even if they got injured in the course of the physical exercises. When girls accidentally got injuries in the their face and looked funny, the boys mocked and looked down upon them (Olafson 2002).

Besides being offended based on the way girls appear, the studies have also found that the nature of boys including their competitive behaviuor and body https://assignbuster.com/issue-of-single-sex-and-coeducational-physicaleducation/
size is a significant factor that turn off girls during coeducational classes. Derry (2002) found that boys were very domineering during physical education and this was causing girls to reduce their level of participation. According to girls, boys have the habit of taking over everything in coeducational classes. A case in point is whereby boys have the perception that girls are less capable of doing things and hence always find themselves taking charge of everything (Derry, 2009). This concept is also found in Derry (2009) whereby a girl that was interviewed claimed that she did not like playing with boys because if she is given a chance to enter the pitch with them, she can hardly get a chance to touch the ball. On the other hand, the comments of teachers regarding this issue show that boys look down upon girls and have a perception that physical education is too competitive for them to take part (Koca, 2009).

Furthermore, girls are intimidated by the physical size and strength of boys. They also do not like their aggressive and intimidating attitude (Derry, 2002). Despite the degrading manner in which girls are treated by boys, Constantinou, et al. (2009) found that girls have a conviction that they are ‘ competitive' and ' athletic.' Constantinou, et al. (2009) added that the female students who believe they are athletic feel comfortable participating in physical activities together with boys because, as they said, this makes physical learning a fun and an interesting experience. Their findings were echoed by Olafson (2002) who agreed to the fact that they had fun in physical learning.

In summary, there are study findings that have revealed that coeducational physical education is advantageous,, but at the same time there are other https://assignbuster.com/issue-of-single-sex-and-coeducational-physicaleducation/
studies that have supported the idea that physical education should be based on single-sex. Generally, the students who were asked about their opinion regarding coeducational physical education, maintain that positive interaction with the other gender is the main advantage (Osborne, et al. 2002). Additionally, it is believed that coeducational environment promotes exchange of diverse ideas from both genders; but overall, the studies show that the majority of the students supports single-sex physical education (Osborne, et al).

## Methodology

This study interviewed a total of 50 female students, 25 of whom will come from coeducational classes and the last 25 will come from single-sex physical education classes. The students that were selected to participate in the study had to be in the age bracket of 12 and 15 years and within school years 7 and 9 . The female participants were asked a series of open-ended and semi-structured questions regarding their personal physical education experiences. To gather more information, the researcher repeated this process on 10 female physical education teachers, 5 of whom came from single-sex classes and 5 from coeducational classes. Throughout the interview, an audiotape was used to record the conversation and later transcribed for analysis. In order to supplement the audio interview with observable features, the researcher videotaped the proceedings with a camera. The study included 4 different secondary schools two of which were single sex physical education and the other two were coeducational. To identify common themes, different categories were identified and grouped depending on the nature of the ideas, and henceforth the frequency counts
were computed and responses were coded. Any information that was of no use was discarded appropriately.

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## Results

As discussed, the research involved both qualitative and quantitative techniques. The hypothesis that collected quantitative data stated that girls in single sex classes achieved significantly higher goals for learning football skills than girls in mixed-sex physical education classes. To achieve this, a questionnaire was adapted from the ' Fennema and Sherman's SelfConfidence for Learning Mathematics Scale' (1976), which was filled out by the students to reveal their opinions regarding their level of learning football skills. This scale is divided into three sub-scales levels that quantify goal achievement, which was categorised into football's suitability of gender, confidence of learning, and effectiveness of football. To this effect, the researcher identified standard deviations, means, as well as t-test, with the aim of identifying the relevant relationship amongst different variables. Table https://assignbuster.com/issue-of-single-sex-and-coeducational-physicaleducation/

1 presents the standard deviations and the means of the sub-scales as derived from the SPSS. On the other hand, the results for the t-Test have been presented in Table 2, this shows the comparison of groupings which was taken after the tests. The total number of the questionnaires completed was 50,25 from the mixed-sex settings and 25 from the single sex settings. The students answered 15 questions, which were allocated scores ranging from 1 to 4 , whereby the highest scale represented the highest confidence level. This has shown that the means and standard deviations from the subscales reveal that girls in single-sex settings had a higher achievement of goals for learning football than girls in mixed-sex learning environments.

The results of a t-test of the relationship between girls in mixed-sex settings and effectiveness variables of single sex classes revealed that the 2 groups were significantly different since the p-value for single-sex was higher than that of the mixed-sex
(before-test $0.57<0.60$ : after-test $0.61<0.70$ ) - this means that the signle-sex group was more statistically signgificant than mixed-sex and hence single-sex is rated with higher effectiveness and confidence than mixed-sex. In other words, the girls that took part in single-sex football classes exhibited significantly possible values for each of their effectiveness variables as compared with their counterparts in the mixed-sex football classes. Also, the results revealed that the before test sub-scales between the groups were not different. The after-test t-test results shows that, at 125 confidence level, different variables were significant at 5\% confidence level, with confidence variable scoring the highest (3.08).

From the results of the interviews, the divide was apparent with some students preferring coeducational classes while others preferred singlegender physical education classes. The preference for either of the two PE environments was conducted with the help of a questionnaire and allowing the researcher to analyse the common themes qualitatively. Many of the girls explained that they preferred single-sex classes over mixed-education because they did not like the behaviour of boys who kept domineering and telling the teachers what to do hence causing a lot of trouble. One of the girls who provided this sentiment commented that coeducational PE is an unstable as the teachers are forced to waste a lot of time trying to force discipline into the uncooperative boys. These sentiments are similar to those proposed by Osborne et al. (2002), who observed that the majority of girls dislike the uncooperative nature of boys during coeducational PE classes and linking back to point made by Hoffman et al. (2008) where he stated that boys receive more attention in class than girls.

It may be that these girls have a preference for coeducational classes as they want to prove their abilities and skills to their opposite sex. In this respect, one of the female students maintained that she is good in sports and therefore felt good when sharing a pitch with boys so she could show them that she is also capable of playing football and others sports just like them or even better. Another female student revealed that she hated sharing a pitch with boys because she was worried about her looks, an observation that contrasted with Obsbone et al. (2002) conclusion that girls perform better when soccer is inclusive of both sexes. Koyucu (2010) agrees with this telling us that many young girls a very self conscious about their image, this mainly comes from the media and the way in which they portray many women.

Student's participation in physical education is ideally dependent on the environment of learning (Derry \& Phillips, 2004). The way students partake in the education environment in turn influences factors such as skills development, off-task behaviour, and activity time. One student who supported same-sex PE classes maintained that she did actually learn more when in a single sex environment simply because the instructor does not waste time trying to discipline the errant boys. She added that she concentrated more in single sex classes, and therefore gets a chance to practice what she has been taught. This observation had been echoed by Derry and Phyllips (2004), who noted that students who joined same-sex classes interacted more with teachers and had more time to learn. The interaction in same-sex classes was characterised by more girls approaching their instructors to ask questions than their counterparts in coeducational classes. From the open-ended questions as well as the observable features, it seemed the structure in the PE classes was a great determinant of the way students interacted in classes. Apparently, the students as well as their teachers agreed that the classes are more fulfilling when students have more friends to interact with in the class. In this regards, a female student mentioned that she liked to play football in class when she had many friends to mingle with, because it made football more interesting. Elsewhere, a female student remarked that provided she was friendly to other classmates, she enjoyed working as a team with them because she communicated well with them. Another female student maintained that the majority of the boys were not only bigger, but also stronger than girls and this has caused girls to avoid boys during physical education. The comments of these students amplified those of Derry (2000), which found that girls are usually aware of the high athletic ability exhibited by boys, in addition to their noticeable strength and physical size, which supersedes those of girls.

The differences between boys and girls was ideally a source of intimidation on the part of girls and hence they ignored boys that had bigger body sizes. In regards to class structure and social impact, the students and teachers revealed that the way peers treated each other was a critical factor influencing the way the students interacted. This perception was tied to the expectation set by teachers as well as the nature of the classroom environment. The students that were interviewed seemed to be very much aware of their learning environment as well as the way other people perceive their activities.

## Discussion

The quantitative results from this study revealed that the effectiveness of learning football skills for girls in a single-sex environment is better than the girls effectiveness within a coeducational setting. A previous study by Lirgg (1994), has found that the girls in single-sex environments were more confident while learning PE lessons than their mixed-sex counterparts. It was also evident that the students skill levels were positively associated with the type of class. Those girls that were confident of their skills in football cited coeducational environment classes as their preference while the girls that were described as non-authorities identified with single-sex classes.

The information regarding the opinion of girls on the way boys conducted themselves during physical education classes as well as the way the boys viewed their own conduct showed a rather negative side of boys. Many girls maintained that the boys have notoriously made the classes troublesome and were not cooperative at all. As such, the girls lamented that the uncooperative behaviour exhibited by boys was particularly annoying and caused trouble to the class environment. The girls were perturbed by the fact the teacher had to keep on ordering the boys to pay attention during PE classes. Perhaps, the boys could have had an opinion different from that of the girls because, from the review of literature, they do not perceive their conduct as disorderly and considers their behaviour as suitable. Hargreaves (1994) suggests that $t$

