Ability Streaming as a Predictor of Academic Inferiority Feelings Among Form Three Students in Kisii County, Kenya

Sakina Moraa Mogaka (Corresponding author)
Educational Psychology Department, Kenyatta University
P.O. Box 43844-00100
Nairobi

Chrispus Wawire (Dr.)
Educational Psychology Department, Kenyatta University
P.O. Box 43844-00100
Nairobi

Doyne Mugambi (Dr.)
Educational Psychology Department, Kenyatta University
P.O. Box 43844-00100
Nairobi

Received: December 26, 2020  Accepted: January 15, 2021  Published: February 3, 2021
doi:10.5296/ijld.v11i1.18273  URL: https://doi.org/10.5296/ijld.v11i1.18273

Abstract

There is substantial literature on the relationship between ability streaming and academic performance among students. This literature however is scanty on the relationship between ability streaming and academic inferiority feelings. The main aim of this study was therefore to investigate the relationship between ability streaming and academic inferiority feelings among students who do not perform well. Alfred Adler’s theory of individual psychology forms the theoretical framework of the study. The study adopted a mixed methods sequential...
Explanatory research design. It was carried out in Kisii County, Kenya. The target population was all the Form Three students in public schools in Kenya (593711 students). Proportionate stratified sampling was used to select the top, average and low-ranking schools in the county. It was further used to stratify schools into boys’ boarding, girls’ boarding, mixed day and boarding and mixed day schools. Simple random sampling was used in the selection of the 400 respondents from 20 schools to form the sample. The research instruments were questionnaires and an interview schedule for the students administered by the researcher. Personal and academic self-concept inventory (PASCI) was used to collect data on academic inferiority feelings and Stephanie Soto Gordon’s questionnaire was used to collect data on ability streaming from students. A pilot study was used to validate and ensure reliability of the research instruments. Both descriptive and inferential statistical procedures were used to analyze data with the help of Statistical Package for Social Sciences (SPSS) version 20. The results were presented using frequency tables. The results showed that there was a relationship between ability streaming and academic inferiority feelings with most of the respondents having moderate feelings of academic inferiority i.e. 83%. Sex differences were found in ability streaming in regard to academic inferiority feelings. Boys experienced a slightly higher level of academic inferiority feelings with a mean of 67.11 as compared to girls who had a mean 65.08. A major recommendation of the study among others was that the ministry of education should try to do away with ability streaming in schools which makes the students feel academically inferior.

Keywords: ability streaming, academic performance, academic inferiority feelings

1. Introduction

Education system has become very competitive where every student is struggling to emerge the best. Schools are also struggling to emerge top in examinations therefore creating a lot of pressure among students whereby some students fail and some pass. Failure among students attracts consequences like judgment, belittling, class retention and even corporal punishment from teachers and some parents. For improvement in academic performance, teachers have resorted to ability streaming of students resulting to academic inferiority feelings among the students.

Globally, education has been viewed as an important investment. It is seen as a critical path to a good life for an individual and subsequently promising economy for a country. Teachers and parents therefore expect students to excel in academics as a result they put a lot of pressure on them. This is done by putting a lot of emphasis on competition, continuous testing and grading of students. Generally, academic performance has been given a lot of focus. It is due to this that teachers have resorted to grouping students according to ability. This is usually done right from form one where students’ marks from primary school are used to stream students according to ability. Ability streaming is done with the belief that those in the lower ability stream will work harder to move to a higher ability group while those in the high ability stream will also be working hard so that they are not demoted to lower ability stream. This will therefore encourage every student to work very hard (Matavire et al., 2012). This practice normally results to stigmatization of students as the low achievers in the low
ability streams are looked down upon by the high achievers in the high ability streams (Jose & Bellamy, 2011).

Comparison among students has become the norm almost in the entire world. Burleson et al., (2005) noted that motivating comparisons among students brings about positive changes in academic confidence unlike demotivating comparisons that are associated with negative changes in academic confidence therefore promoting academic inferiority feelings among students. According to Carson, Bartneck and Voges (2013), disadvantages of competition exceed the advantages. The findings of the study on the disadvantages of highly competitive educational settings were that constant failure tends to bring about rejection on the side of those who fail.

In academia, inferiority is the relative self-comparison and the perception of one’s performance in relation to the performance of other students who are at the same level (Strano & Petrocelli, 2005). Similarly, Adler (1964) defines inferiority feelings in terms of self-comparison resulting to goal striving and subsequently motivating human behavior. He further says that universally, everybody suffers some sense of inferiority of which they try to overcome. It is for this reason that some weak students try to work hard in order to excel. Sometimes their effort is not appreciated by the teachers especially when the teachers’ expectations are not met. This often occurs through unfavourable comparisons of students by the teachers. Those in the lower ability stream may eventually suffer from academic inferiority feelings when they discover that they can never make it to the high ability stream.

Ability grouping implies to some means of grouping students for instruction or achievement so as to reduce their heterogeneity. It can be seen in the form of tracking, streaming or regrouping students to selected subjects. As a result, a group of homogenous classes for the high achievers and for the low achievers is created. The groups are determined by their performance from a previous test (Martin, 2012).

Betts (2011) defines ability streaming (tracking) as the practice of classifying learners by using their previous class academic performance. Within a school, this leads to learners being placed into various classrooms in order to improve on their performance. Alternatively, learners could be classified into various schools. Some can be placed in purely academic schools whereas others can be placed in technical schools. Those that advocate for streaming believe that streaming can make schooling more efficient by laying more emphasis on the specific needs of a particular group of students. Those that are against streaming believe that it ends up aggravating inequality among learners. According to this study, evaluating effects of streaming on average student performance is not easy, partly because studies vary in terms of location, culture and nature of participants.

Research done in Australia, the United Kingdom and the United States show that within-school streaming is a common practice. Johnstone and Wildly (2016) carried out a research in Australia on the practice of streaming and its effects on secondary school students which included academic, social and emotional learning outcomes and how teachers mediate these effects. Their research painted a negative picture on the practice because it was insufficiently done and therefore the learning outcomes did not significantly improve.
Grouping of students into high ability and low ability was advocated (Forgasz, 2010) but it was detrimental to lower ability students.

In Kenya, the fate of learners is determined by their performance in national examinations. The national examinations are done twice, at the end of primary school where pupils sit for the Kenya Certificate of Primary Education (KCPE) and at the end of secondary school they sit for the Kenya Certificate of Secondary Education (KCSE). These examinations are done for the purpose of selecting students into successive levels in the education system (Kellaghan & Greaney, 2009). Depending on the KCPE results, students are placed into schools according to their performance. Those who perform highly are selected to the prestigious national schools while the low performers are selected to the local day schools. KCSE results determine the nature of course one will do. Those who excel pursue prestigious courses while those who do not perform well join the middle level colleges to pursue technical courses.

Academically, Kisii County has also been ranked low among other counties for many years now. According to the Kisii County Director’s office 2018 statistics, the KCSE examination mean in 2017 and 2018 was 3.03 and 3.34 respectively. Ochoro and Monyangi (2014) attributed this to high enrolment rate coupled with lack of enough teachers for effective teaching and learning process. Academic inferiority feelings which could be due to ability streaming which is highly embraced in schools could be leading to low academic performance in Kisii County.

According to Odabasi (2013), success or failure of any individual may affect the way one views himself or herself. He further says that a student who surrenders to failure and feels helpless will neither have a high self-esteem nor face the future with hope. Such a student will admit his or her failure and will do nothing to avert the situation. Such a student who is encountering an uncontrollable negative situation will have motivational, cognitive and emotional deficiencies such that the student will develop a satisfactory behavior and feelings of inferiority even in cases where positive intervention is possible (Peterson et al., 1993).

1.1 Statement of the Problem

Students have been missing out on competitive courses in the universities because of poor academic performance. This has resulted in individual learners failing to get prestigious jobs and not living up to the individual or societal expectations. Many schools have therefore introduced strategies that they hope would lead to competition among students in order to enhance good academic performance. Such strategies include ability streaming which is done without looking at the effect it may have on low performers who end up developing academic inferiority feelings. Students with academic inferiority feelings usually display low performance, become academically disengaged and some even drop out of school.

Research done in Britain reported a positive correlation between ability grouping within schools and students’ global self-esteem (Houtte et al., 2012). In the United States of America, research done on comparisons between students’ performance reported that comparing of students resulted to a sense of inferiority among the low achievers while it brought about a
sense of inspiration among the high achievers (Burleson et al., 2005). In Zimbabwe, studies demonstrate that, self-concept was an important mediating and predictive variable for academic achievement (Dambudzo & Schulze, 2012).

In Kenya, research has been done on self-handicapping, defense pessimism (Wawire, 2010), academic motivation (Mutweleli, 2014), class retention and self-concept (Amadalo et al., 2009) in relation to academic achievement. Very little attention has been given to academic inferiority feelings. In Kisii County, where performance is very dismal, there is paucity of research done to investigate what predicts academic inferiority feelings among secondary school students. The central problem of this study was therefore to investigate the relationship between ability grouping and academic inferiority feelings among secondary school students in Kisii County, Kenya.

1.2 Objective of the Study

The main objective of this study was to establish the relationship between ability streaming and academic inferiority feelings among secondary school students.

1.3 Limitations and Delimitations of the Study

1.3.1 Limitations of the Study

The study was done with a limited sample size within the Kisii County. The results therefore cannot be used to make generalizations to larger populations apart from the population from which the sample was drawn. Self-report items used in the questionnaires could also be subjective.

1.3.2 Delimitations of the Study

The study was delimited to form three students in secondary schools in Kisii County. Form one and two students were left out as they were still settling down and adapting to the secondary school education system. Form four students were also not included as they were having a busy schedule with examinations and other programmes. The study was also delimited to secondary schools only leaving out students from other levels like primary schools, colleges and universities. Secondary school students understand ability streaming more than primary school students. It also affects them more than it affects students of higher levels of learning. The study focused on students only without focusing on teachers as they are the ones directly affected by ability streaming therefore able to give a clear picture on its effects.

1.4 Theoretical Framework

**Individual psychology theory (Adler, 1923)**

Alfred Adler developed the first holistic theory of personality, psychopathology and psychotherapy that was intimately connected to a humanistic philosophy of living. From his point of view, when one feels encouraged, he/she feels strengthened with new ability, gets a feeling of belonging and will generally be cooperative and will connect with others. On the other hand, discouragement brings about unhealthy competition, withdrawing and giving up.
Adler (1923) viewed inferiority feelings as a condition that can trigger one’s creativity. It is a condition normal to everybody which makes one to strive for higher levels of achievement. The desire to overcome inferiority and become successful can motivate human behavior making one to achieve higher levels of development. This is often moderated by social environments. He believed that nobody is born perfect. The physical inadequacies in young children make them feel inferior to those around them. People therefore try to overcome the inferiority feelings early in life (Adler, 1964).

Previous research suggests that feelings of inferiority may serve as a stepping stone to achievement rather than just as an obstacle (Strano & Petrocelli, 2005). Other studies have investigated a one-dimensional self-esteem definition of inferiority (Mehrabian, 2000) or related constructs like motivation (Covington, 1992; Dai, 2000) in connection to achievement or success. The current research adds to the topic by investigating the role of ability streaming as a predictor of academic inferiority feelings. Students who are placed in the poor performing classes are likely to suffer from academic inferiority. This makes them feel inadequate in their studies.

In schools, students try to overcome their inferiority feelings by trying to work towards excellence and compete with those who do better than them. Unfortunately, this is watered down by teachers and parents who try to make unhealthy comparisons through ability streaming. This kills the students’ motivation and therefore they stop putting any more effort. This study therefore looks at the relationship between ranking, ability streaming, extrinsic rewarding and academic inferiority feelings among students in, Kisii County.

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Mediator variables</th>
<th>Outcome variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability streaming</td>
<td>-Type of school</td>
<td>Academic inferiority feelings</td>
</tr>
<tr>
<td></td>
<td>-Academic performance</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1. Conceptual Framework

Note. Relationship among variables

Figure 1.1 shows ability streaming as a predictor of academic inferiority feelings. A student’s stream will determine his/her academic feelings. A student who ranks low and therefore placed in the low performing stream is likely to feel inferior academically unlike the one who ranks high and placed in the high performing stream. The low performing group become helpless and gets contented with their usually low performance. They do not struggle to put any more effort since nobody recognizes their efforts.
2. Review of Related Literature

2.1 Relationship between Ability Streaming and Academic Inferiority Feelings

Houtte et al., (2012), noted that a lot of research has been done in British and North American schools where ability grouping is usually done within and between schools based on the students’ prior academic performance. According to the study, homogeneous grouping is done where learners with almost the same ability are placed in the same class within a school (multilateral tracking) and between school tracking where learners are placed to different schools on the basis of their prior academic performance (categorical tracking) (Hallam & Ireson, 2006). Further research was done among 10 multilateral schools and 56 categorial schools with 3758 academic and 2152 vocational students on self-esteem between 2004 and 2005. The aim of the study was to find out if within school tracking in secondary school education led to the difference in self-esteem between academic and vocational learners. The study revealed that the difference in global self-esteem between the two groups was insignificant. According to the results, self-esteem was significantly associated with class rank not tracking of students. Unlike their study, this study focused only on academic secondary schools without comparing them with vocational secondary schools. It also looked at how ability grouping impacts on academic inferiority feelings but not self-esteem.

Micari and Drane (2011) noted that, if learners are classified into groups, they feel intimidated especially if the groups are according to individual ability. This could be because of worry that they do not have as much talent or they can not measure up academically to the others in the group. A sample consisting of 205 undergraduate students from Midwestern US University was studied in one academic term (at the beginning and at the end of the term). In the study, Micari and Drane (2011) focused on social comparison concern, comfort and self-efficacy in relation to achievement among peer-led group learning. The results showed that when one’s ability is compared with that of others, anxiety among students is always intensified. Students with low academic ability performed poorer in a group than those students with high academic ability. Results further showed that placing students in a heterogeneous group is always beneficial especially to the high achieving students. This study used small peer-led groups among undergraduates unlike the current study that used samples from various form three classes where ability streaming has been done with no focus on particular disciplines.

Further research in the United States calls for a fresh redefinition of tracking or ability streaming as one of the practices in the education sector. The research investigated on the effects of tracking on academic performance and its ability to instill inequality among learners and the unethical practice of dividing learners along intellectual lines. This research informs the researcher of the harmful effects the practice has on the low performing students whose majority come from the African American race despite the fact that their school attendance is at the same rate or even higher than their peers. The findings further highlight on the way the African American students are always the least prepared for educational opportunities (Beard, 2018). According to the research therefore, there is need to relax the tracking policies in order to have an equal distribution of various levels of students’ wellbeing.
in terms of academic achievement. The research did not focus on role of tracking on academic inferiority feelings as one of the harmful effects among the low performing students.

Boaler et al., (2010) carried out a study using questionnaires among 943 students and using an interview with 72 students purposely to find out how the performance of mathematics relates to ability streaming. It was revealed that ability-grouping led to curriculum alignment. The high achievers were required to learn at a faster speed whereas the low achievers were denied some opportunities to learn especially in the choice of subjects. In the homogeneous groups, a variety of teaching methods was used than in the heterogeneous groups. This was a deleterious approach to the students. From the findings, very few students were happy with this placement. However, these findings were done using a longitudinal study and it was important to design a correlational study to find out the relationship between ability streaming and academic inferiority feelings.

In a related study, Matavire et al., (2012) investigated the effect of ability streaming vis-a-vis mixed ability in Muzarabani District in Mashonaland Central. This is because ability grouping had been practiced in Zimbabwe for a long time. This had continually been done despite the fact that the system was unfavourable and intimidating to both the teachers and students especially since it results in streaming of the available resources. A total of 2 schools out of 7 were used for their study whereby in one school streaming was practiced and in the other it was not. Participant observation, documentary study, interviews and questionnaires were used in data collection with 394 students as the sample size. The results confirmed the hypothesis that ability grouping of students often resulted in the streaming of teachers and resources. Unlike this study, the current study used a sample size of 20 schools from one county instead of 2 schools in order to get more detailed data. A correlational research design was used in order to establish the relationship between ability streaming and academic inferiority feelings.

A study done in Malaysian schools, found out that one of the strategies in academia that caters for ability differences is by placing students in ability classes (Mansor, Maniam, Hunt & Nor, 2016). According to the study, prior academic performance was used to permanently place students in their ability classes for the whole year. The study was conducted in three elementary schools using interviews. Its major aim was to find out the advantages and disadvantages of streaming and its effect on content delivery. 9 teachers and 10 students agreed that ability grouping is better than mixed grouping. One of the advantages is that, lesson planning becomes easier on part of the teacher, reduced peer pressure and hence better performance on the part of the student. This system is majorly exam oriented and it encourages inter-ability socialization therefore impacting negatively on self-esteem and achievement motivation. Qualitative research approach was used as a primary instrument for data collection and analysis. Semi-structured interviews supported by questionnaires were also used for data collection. The participants were 3 primary schools from sub-urban areas, 9 teachers and 30 students. Unlike this study, the current study used students only without including teachers. This was to get the true picture on how ability streaming impacts on students alone and not teachers. A bigger sample size was also used in order to get a detailed
report on the study. The study also failed to discuss academic inferiority feelings as one of the disadvantages of streaming.

In Denmark, for vocational schools to increase retention of students it was important for the schools to stream students into courses according to their ability. Grouping was done using their previous academic qualifications. In relation to this, a study was done with the low ability students so as to explore their feelings in regard to their course (Tanggard et al., 2015). The study drew from theories of student drop-out and engagement (Finn, 1989) and on the differentiation-polarization theory (Garmoran, 2010) concerning the effects of streaming students into ability-based classes. From the findings, disengagement and dropping out of the low ability students in vocational schools was evident when ability streaming was practiced. The study suggested that the mixed ability grouping can help to curb the problem of disengagement and dropping out of school. This study was done in vocational schools where ability grouping was practiced whereas the current study was done among secondary schools where students were placed into classes according to ability. In addition, this study uses student drop-out and engagement theory and differentiation-polarization theory unlike the current study which used the individual psychology theory which clearly explains the causes of inferiority feelings among individuals.

Ramberg (2016) carried out a study on streaming students according to ability on Swedish upper secondary schools. Results revealed that 43% of the schools use ability streaming to separate high achievers from low achievers in educational settings. The target population was all the upper secondary schools in Sweden. Streaming was commonly based on core subjects like mathematics where low achievers scored poorly. This system was considered unethical, undemocratic and it promoted inequality especially to the low achievers. Low-achievers were likely to suffer from delinquency, dropout, low self-esteem, inferiority complex and other social problems. The research participants were all the upper secondary school principals of the year 2010/2011, that is, 950 principals with the use of questionnaires. This is unlike the current study which used students only (N=400) as the intention was to get the feelings of the students when they are grouped according to ability.

In West London, Madeline and Koshy (2016) carried out research with an intention of exploring students’ feelings and experiences on ability grouping. The study was done among selected independent girls’ secondary schools. Questionnaires and focus group interviews were used among 260 girls between 12 and 16 years. Software Package for Social Sciences (SPSS) was used for analysis. A paired sample t-test was completed which allowed comparisons to be made between responses given by particular participants in the curriculum subjects of science, modern foreign languages, English and Physical Education. Pupils benefited from ability grouping as they were able to study together harmoniously and consult each other at the same level enabling lessons to be carried out at the right pace for their ability. Pupils worked with the fear of being moved down to a low-achieving class therefore they worked under pressure so as to maintain their performance. Some few pupils reacted positively to the pressure. On the contrary, pupils in mixed ability groups felt less anxious and confident. A few felt challenged by others in their classes and felt disappointed when they failed to catch up with their peers. A bigger sample of 400 students from 20 schools was used
in the current study for a more reliable result.

Streaming of students has remained a contentious issue in Australia. Forgasz (2010) carried out a study on streaming for mathematics which has been done for many years in Victorian secondary schools. The study explored the extent to which ability streaming was used in mathematics and how it impacted on the students. From the study, streaming made some students feel more equal than others where the high achievers discriminated the low achievers. The study also focused on the forms of streaming used and how they impacted on the curriculum. It was discovered that streaming was widespread and was supported by many mathematics teachers. Streaming was more preferred as one goes up the levels. This system appeared not to benefit low achievers especially in mathematics. They were therefore negative about it unlike high achievers who supported it. This limited low achievers’ future in mathematics. Survey method was adopted with one respondent from every school in 44 schools. Descriptive statistics including frequencies and percentages were used to analyze quantitative data. The results indicated that 80% of the schools practiced streaming while only 9% of the schools did not practice streaming. 11% of the participants failed to respond to the questionnaire. This is unlike the current study whereby larger sample of 400 respondents from 20 schools was used.

Ability grouping within schools and ability grouping within classrooms based on prior academic performance, past literacy skills, students’ socio-economic and cultural background might affect students’ academic achievement (Chiu et al., 2016). In this study, reading tests were carried out among 208,057 students in grade four, their parents, teachers and principals from 40 countries where streaming and tracking were practiced. An experimental study was done using 150 schools and 4000 students representing each country. On comparing reading and writing skills across schools where streaming was practiced, it was revealed that fourth-grade students were better in reading while their peers had similar reading and writing skills across schools (school streaming) but not across classrooms within schools. From the results, streaming led to higher reading and writing achievement while tracking led to lower reading and writing achievement. The general academic performance was also studied in schools that practiced streaming and tracking. In both categories of schools, the difference in academic performance was insignificant. This study was limited to academic performance, reading and writing achievement but did not focus on academic inferiority feelings as a result of streaming and tracking.

Stabler et al., (2017) compared the academic self-concept between low achieving students and high achieving students when learning separately and when learning together. The study was carried out in schools that classified students into high and low achievers using prior academic performance. Results indicated that low achieving students only showed a low academic self-concept when learning with high achieving students. The study aimed at scrutinizing students’ class achievement against students’ academic self-concept in Germany. The study used a sample of 6,463 grade seven students from 285 classes and multilevel path models. The results showed that there was a significant positive relationship between a student’s initial class academic achievement and subsequent academic achievement throughout the year. Similarly, academic self-concept was also positively affected throughout
the year. Students with high academic achievement displayed high self-esteem while those with low academic achievement displayed a low self-esteem. The study also investigated academic achievement and self-concept at the beginning of the year, by mid-term and by the end of the year among grade seven students using mediation analysis. According to the study, students displayed a low academic achievement and negative self-concept at the beginning of the year. Mid-term class-average achievement mediated students’ academic achievement at the end of the year and not mid-term self-concept. Academic inferiority feelings among students was not investigated.

Academic self-perception is not static in the course of schooling (Becker & Neumann, 2016). Several factors in school contribute to changes in academic self-perception including individual and class environmental factors. According to the findings of the study, performance of peers in class is important in determining changes in academic self-perception. Students perform well when they are with peers of equal academic ability but when placed with students of high academic ability, they do not perform well due to reported lower academic self-perception but when in lower ability classes they perform well due to reported higher academic self-perception an effect known as Big-fish-little-pond effect (BFLPE) (Stabler, et al., 2017). BFLPE was found to be present in all levels of learning but it diminishes as one proceeds to higher levels of learning. Using contextual information, a sample drawn from fourth graders who transited from elementary school to secondary school showed that BFLPE exists in both levels. The current study used a sample from secondary school only without involving primary school students.

Dumont et al., (2017) carried out an investigation on secondary school tracking and how it regulates students’ academic potential beliefs and their beliefs regarding their labour market chances. The study also analyzed how tracking relates to school disengagement. Majorly, the study distinguished two main features of tracking: the social context of tracking which is indicated by the mean achievement of the student in relation to their schoolmates and tracking which is indicated by future opportunities operationalized by their educational certificates. These two distinguishing features were disentangled by the study using a questionnaire. A total of 2,155 students from low-track schools, 23 intermediate-track schools and 35 comprehensive schools in Berlin, Germany participated in the study. The results showed that educational certificates mattered more than beliefs in labour market chances in shaping a student’s academic potential beliefs and school disengagement. The study revealed that, intermediate school-leaving certificates helped improve students’ academic performance hence academic perception. Students were therefore more engaged in school and believed that they will get jobs faster. Their class performance, the performance of their colleagues and their ability stream did not matter. On the other hand, achievement of students’ schoolmates was relevant to academic self-perception whereby those who achieved low had low academic self-perception. The current study narrowed down its focus on academic feelings using a smaller sample.

Tereshchenko et al., (2019) analyzed the feelings of students in mixed ability grouping done on the basis of their prior attainment. Focus group discussions and individual interviews were used to collect data from 89 students aged between 11 and 12 years from 8 secondary schools
that practised mixed ability grouping in Mathematics and English. The study revealed that students with low class attainment had a strong preference for mixed ability grouping than those students with high class attainment. With ability grouping, those in the higher track benefited more than those in the lower track. Using randomized control trial design, it was revealed that students with low prior attainment spoke positively about the practice of mixed ability grouping while students with higher prior attainment spoke negatively about mixed-ability grouping of students. Middle attainers appeared more divided than the other two groups. The study did not focus on the academic feelings of the learners.

In the United States of America and in the United Kingdom, tracking is organized within school and it has got great effects (Houtte & Stevens, 2015), whereas in many European countries such as Belgium, tracking is commonly organised between schools. In their study, Houtte and Stevens (2015) examined whether the negative effects of tracking among students were due to the systems in place in within-school tracking and between-school tracking or because of the tracking itself. The study investigated whether there was a relationship between the track a student is and the student’s feeling. The study was carried out among 85 secondary schools in Flanders based on the Flemish Educational Assessment data. Three multilevel analyses of 11,872 3rd-5th grade students clustered in 146 tracks both between and within school tracking made the representative sample. From the findings, within-school tracking impacted negatively on the lower track students. It brought about a feeling of inferiority and helplessness among the students. This mainly affected the lower track students who were constantly demeaned and humiliated by the higher track students in school. They eventually lost faith in education and purely depended on pure luck to pass examinations than hard work (Houtte & Stevens, 2015). The current study used a smaller sample of 400 respondents.

Mazenod et al., (2018) noted that ability or attainment grouping leads to labelling of students by teachers influenced by their expectations of the high and low ability groups. The study’s major interest was to find out the teachers’ expectations on students. A sample of 597 teachers of Mathematics and English in lower attainment classes across 82 schools was surveyed using a mixed methods design. From the findings, 53% of the teachers strongly felt that there are some activities that the low attainment group could not manage. This group therefore required specific approaches of teaching and learning so as to nurture and safeguard them through school. They felt that this group required more practical work than theory work. This made the low attaining students feel inferior to others. The teachers greatly undermined their potential such that the students remained helpless. The study concluded that grouping of students has impacted them negatively lowering their attainment and self-confidence. The teachers’ confidence in the low attainers was lowered too once the students were grouped. Unlike this study which used teachers to get students’ feelings, the current study used students themselves to get their academic feelings.

According to Francis et al., (2017), grouping of pupils according to ability within schools has still persisted despite the fact that the practice negatively impacts on the outcome of the learners in the low-attainment group. The grouping is done using prior academic achievement where low performers are placed in a different class from the high performers. The
hypothesis in the study that ability grouping impacts pupils’ self-confidence was explored and supported. This therefore precipitated the self-fulfilling prophecy. Survey data from 11,546, 11 and 12 year old pupils in ability sets was used. Both individual and focus group interviews were used in data collection to explore the hypothesis. A sample of 66 pupils was used to find out the relationship between set placement and self-confidence in learning among pupils. The study revealed a significant relationship between set placement and general confidence among pupils in the set subject. From the pupils’ qualitative responses, it was evident that set placement or ability grouping promoted a self-fulfilling prophecy. Evidence of internalized labels among pupils was also realized. The labels stemmed from both teachers and students themselves. Qualitative analysis further revealed the detrimental impact of placement in low sets on self-perception and academic feelings among the learners. The current study was carried out among secondary school students with a smaller sample.

Giersch (2016) noted that inequalities among learner outcomes was due to tracking which is a common feature in most school organizations. Tracking was done whereby high performers were placed in different classes from the low performers. In both groups, high-stakes testing policies were used in measuring learning. These instruments were considered too narrow to be relied on in assessing students’ progress in order to place them in their various tracks. A longitudinal study was done that followed school students from public high schools in North Carolina through the state university. The students were placed in different tracks and monitored throughout their schooling with an aim of examining the different outcomes associated with tracking. The upper and lower track students were compared while achievement on high stake tests was controlled for. The results showed that the upper track students performed better throughout high school than the lower track students. On transiting to college, the upper track students still performed better whereas the lower track students performed poorly and others dropped out. The study utilized a longitudinal data set that follows one cohort of North Carolina school students from public high schools through the state university system to examine the different outcomes associated with academic track. When comparing the upper and lower track students while controlling for achievement on high-stake tests, results evidently indicated that the upper track students do better in college as compared to the lower track students. These tests strongly predict college success for upper track students and failure for lower track students. Focus group interviews revealed that these differences were due to different methods of instruction in each track. The contribution of academic inferiority feelings to these differences in performance and college success was not investigated.

2.2 Gender Differences in Academic Inferiority Feelings

A study was carried out by Tripathy (2017), with the aim of determining the effect of academic achievement on inferiority-insecurity feelings. A sample of 100 adolescents was used whereby 50 of the participants were high academic achievers (25 boys and 25 girls) and 50 were low academic achievers (25 boys and 25 girls). Inferiority and Insecurity Questionnaires were used for collecting data. From the researcher’s findings, there was no significant difference between high achievers and low achievers (both boys and girls) on the level of inferiority-insecurity feelings. Academic achievement had the same impact on them.
When grouped into ability groups, high-achieving students gain more from ability grouping while the low-ability students do not gain but instead it damages their well-being (Belfi & Damme, 2012). Therefore, according to the study, gender has no significant effect on inferiority feelings. Unlike this study, the current study used a larger sample size of 400 participants for a better result.

Houtte (2017) carried out a study to find out whether study involvement is gendered and the relationship between track position and study involvement among boys and girls. The study was conducted in Flanders, Belgium where data was collected from a sample of 11,872 third and fifth grade students. This sample was drawn from 146 tracks being a representative sample of 85 secondary schools. From the results of the study, tracking had an impact on both boys’ and girls’ involvement in studies, though the influence was more on boys than girls. Boys’ involvement in studies reduced as compared to that of girls. In addition, track position affected boys more negatively as compared to girls therefore enlarging the gender gaps in the lower tracks. The boys therefore felt inferior to the girls and this affected them throughout their stay in school. The study further revealed that girls benefited more in their well-being and self-concept from single-sex classes than boys whose self-concept and well-being were negatively affected (Belfi & Damme, 2012). The study further revealed that girls in arts tracks are, on average, more involved in studying than girls in academic tracks.

Belfi et al., (2012) carried out a study to find out the effect of class composition by gender and ability on the students’ academic self-concept, well-being and school achievement in secondary school. The results indicated that high achieving students gain a lot from ability grouping in terms of self-esteem and academic achievement whereas the self-esteem of the low-achieving students is damaged hence affecting their academic performance. Furthermore, results indicated that girls prefer single sex classes as they boost their self-esteem and wellbeing as compared to mixed sex classes. The study did not investigate on the effect of gender classification on the students’ academic feelings.

3. Methodology

3.1 Research Design

Mixed methods sequential explanatory research design was used in the collection of data. This research design involves collecting, analyzing and interpreting both quantitative and qualitative data in a single study (Creswell & Plano, 2011). In this design, the researcher began with the collection and analysis of quantitative data and then the qualitative data in two consecutive phases as shown in Figure 2.
In the quantitative phase, descriptive survey method was used whereby the use of questionnaires was employed. In the qualitative phase, an interview was carried out in order to better understand the students’ academic feelings.

According to Creswell (2013), the mixed methods design yields data that is more comprehensive therefore increasing the generalizability of the results. Furthermore, the method ensures a broader range of research questions as the researcher can use more than one approach. The results from the methods can also validate each other and provide stronger evidence for a conclusion.

3.2 Research Variables

In this study, the outcome variable was academic inferiority feelings which was measured at the interval scale of measurement. The predictor variable was ability streaming of students which was measured at ordinal scale of measurement.

3.3 Locale

The study was carried out in Kisii County, Kenya. This location was chosen because Kisii County is one of the counties that register a high number of students in KCSE where majority of them do not well (Onderi et al., 2015). In 2015, when this study was done, the county registered 21,500 students which was 4.11% of the total number of students in Kenya up from 19,969 students in 2014 which was 4.13% of the total number of students in Kenya (KCSE Essential Statistics, 2015). In 2014, the KCSE statistics from the Kisii County Director’s office show that, Kisii County had a mean score of about 5.38 points out of the possible 12 points which is an equivalent of a mean grade of C-. In 2015, the mean score rose to a mean grade 5.67 out of the possible 12 points.

In 2018, 26,997 students sat for KCSE. The statistics from the County Director of Education showed that only 12.34% of the students qualified to join the university, with the minimum entry grade of a C+ (Table 3.2) while 87.86% did not qualify to join the university. The mean
for the county was 3.34 in 2018 down from 3.29 in 2017. Ranking of the 11 Sub-Counties was done where the leading Sub-County emerged with a mean of 4.27 and the last one had a mean of 2.12. This was after the Sub-County Directors of Education ranked their schools and submitted the result to the County as shown in Table 1. Furthermore, a study done by Makworo, Wasanga and Olaly (2014) on psychosocial factors affecting academic performance in Kenyenya Sub-County, Kisii County revealed that 51.7% of the girls and 40.5% of the boys have a negative self-concept. He recommended further research on factors affecting boys’ and girls’ attitude towards secondary school education in the entire Kisii County as their performance is dismal.

Table 1. Kisii County Kenya Certificate of Secondary Examination Ranking (2018)

<table>
<thead>
<tr>
<th>Sub-County</th>
<th>Rank</th>
<th>No. of candidates</th>
<th>Mean</th>
<th>C+ and above</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masaba South</td>
<td>1</td>
<td>3701</td>
<td>4.74</td>
<td>754</td>
</tr>
<tr>
<td>Kisii Central</td>
<td>2</td>
<td>3660</td>
<td>4.07</td>
<td>657</td>
</tr>
<tr>
<td>Nyamache</td>
<td>3</td>
<td>3882</td>
<td>3.88</td>
<td>376</td>
</tr>
<tr>
<td>Kitutu Central</td>
<td>4</td>
<td>2217</td>
<td>3.65</td>
<td>365</td>
</tr>
<tr>
<td>Kenyena</td>
<td>5</td>
<td>3362</td>
<td>3.32</td>
<td>367</td>
</tr>
<tr>
<td>Gucha</td>
<td>6</td>
<td>1011</td>
<td>3.45</td>
<td>87</td>
</tr>
<tr>
<td>Kisii South</td>
<td>7</td>
<td>2255</td>
<td>3.24</td>
<td>181</td>
</tr>
<tr>
<td>Marani</td>
<td>8</td>
<td>2013</td>
<td>3.16</td>
<td>125</td>
</tr>
<tr>
<td>Gucha South</td>
<td>9</td>
<td>2034</td>
<td>2.99</td>
<td>178</td>
</tr>
<tr>
<td>Etago</td>
<td>10</td>
<td>1685</td>
<td>2.58</td>
<td>37</td>
</tr>
<tr>
<td>Sameta</td>
<td>11</td>
<td>1177</td>
<td>2.12</td>
<td>119</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>26,997</strong></td>
<td><strong>3.34</strong></td>
<td><strong>3246</strong></td>
</tr>
</tbody>
</table>

Further analysis shows that more than 60% of those who qualify to universities are those from the few top-ranking schools while only 40% of the other students are from the low and average ranking schools. In 2011, some schools were elevated to national status by the
ministry of education. According to the Kisii Director of Education, the national schools are top ranking and they also get many students who qualify to the university though there are other small sub-county schools that compete well with them. The researcher’s intention therefore is to find out the real causes of academic inferiority feelings.

3.4 Target Population

The target population composed of all the form three students in public secondary schools in Kenya that have presented candidates for national examinations for at least three years while the accessible population was all the form three students in public secondary schools in the Kisii County that have presented candidates for national examinations for at least three years. According to the 2018 statistics from the Kisii County Director’s Office the total number of form three students is approximately 29,309 students from 370 schools, a population that made it easy for the researcher to draw a required sample from. Form three students are most preferred because they have been in secondary school for three years and have already selected subjects that they will sit for during K.C.S.E examinations and are therefore expected to be working very hard to achieve their expected target. Mutweleli (2014) noted that, these are the students who are more than ever before expected to be getting more serious with their studies.

3.5 Sampling Techniques and Sample Size Determination

3.5.1 Sampling Techniques

Proportionate stratified sampling was used to stratify schools into top ranked schools (National), average ranked schools (Extra County) and low ranked schools (County) and further into boys’ boarding schools, girls’ boarding schools, mixed day and boarding and mixed day schools. Simple random sampling was then used to get the required participants from each of the schools that were involved in the study. According to Mugenda (2008) simple random sampling gives each element in the population an equal probability of getting into the sample.

The researcher got the required number of participants by first visiting schools that practice ability streaming. The lowest ability stream among the form three classes was the one specifically targeted as it was the one likely to experience academic inferiority feelings.

3.5.2 Sample Size Determination

A total of 20 schools were selected through stratified random sampling. Participants were then randomly sampled from each school using paper folds with 20 of them written ‘yes’ and the rest written ‘no’ making a total of 400 students (See Table 3.2). This helped in fulfilling the requirements of efficiency, representativeness and reliability (Kothari, 2004).
3.6 Research Instruments

This section gives a description of the research instruments that were used to collect data on ability streaming and academic inferiority feelings. The instruments elicited both quantitative and qualitative information on the variables.

3.6.1 Questionnaires

The use of questionnaires was most preferred as it could reach a large audience at the same time and it is also a faster way of collecting data. Questionnaires were used for collecting quantitative data. They were divided into two parts whereby the first part consisted of the
participant’s personal information and school characteristics. The second part sought information on the participant’s academic feelings using PASCI’s student self-concept inventory and ability streaming using Stephanie Soto Gordon’s questionnaire. These two questionnaires were adapted after seeking and getting permission from their developers. The researcher also used an interview schedule to gather qualitative information.

The participants responded to the ability streaming scale and academic inferiority scale. The respondents were required to give their views regarding comprehensibility and clarity of content. The pilot study also helped to reveal whether the anticipated analytical techniques that were used were appropriate. The data of the two scales was subjected to Cronbach’s Alpha reliability whose results yielded a reliability index of 0.91. This was very high and therefore the two scales were appropriate for use.

a) PASCI’S Student Self-concept Inventory

Students’ academic inferiority feelings was measured using PASCI (Personal and Academic Self-concept Inventory) which is an extension of the Fleming-Courtney scales. It is a 20 item questionnaire that seeks to measure students’ feelings regarding their academic ability (e.g. “do you ever feel less capable academically than others in your class?”) with each item rating on a five point scale from 1 point - never to 5 points -very often. The scores on the scale range from 20 indicating high academic inferiority feelings to 100 indicating low academic inferiority feelings. A pilot study was carried out on a sample of 48 form three students from three different schools that were not included in the main study. This was done to pretest the questionnaire for purposes of determining the reliability and validity of the questionnaire. After test-retest was done, Cronbach’s Alpha reliability was used to determine the instrument’s reliability for the current sample. The reliability for this scale was found to be 0.79. This reliability was considered high enough and therefore, the scale was adapted. This questionnaire took averagely 7 minutes to complete it.

b) Stephanie Soto Gordon’s Questionnaire on Ability Streaming

This is a questionnaire that was used to collect data on ability streaming. It was constructed by Stephanie Soto Gordon of the University of Toronto on ability groupings in an ESL (English as a Second Language) secondary classroom in 2010. The questionnaire contained 30 items for the students seeking information on their feelings regarding ability streaming, on a scale of 1 point (strongly agree) -5 points (strongly disagree). The items were reduced to 20 items for the sake of relevance to the participants. A score of 100 shows low feelings of inferiority while a score of 20 which shows high feelings of inferiority. Permission to use the Stephanie Soto Gordon’s questionnaire was sought from the author.

It was subjected to piloting in order to ascertain validity and reliability of the questionnaire. From the pilot study, some questions that were too hard for the participants to understand were modified to make them understandable. After the piloting, Cronbach’s Alpha reliability was used to determine the reliability of the questionnaire before it was used. The results yielded an internal consistency of 0.87 as compared to the reported reliability of 0.84 hence its suitability for adaption. The questionnaire took averagely 7 minutes to complete.
3.6.2 Interview Schedule

Students from the low ability streams were interviewed in order to shed light on the findings derived from the quantitative analysis. The qualitative findings were not dependent on quantitative findings neither were they meant to test the quantitative data.

3.6.3 Pilot Study

Pilot study was carried out as a preliminary study before the main study. It was carried out to ensure validity and reliability of the instruments whereby it was used to determine and address areas of difficulty and those that could be confusing and offensive to the respondent. The research instruments were pre-tested so as to work out any issues that could arise within the group. It was to ensure that the instrument served the purpose they were designed for. The instrument was then revised and used for the main study. A total of 24 students from 3 schools with the same characteristics as those of the target group participated in the pilot study. These students were not included in the main study.

3.7 Validity and Reliability Determination

3.7.1 Validity of Instruments

To ensure content validity and construct validity, a range of items were used for each construct. According to Mugenda (2008), content validity is assured by having enough content and putting the items in a form that can be administered to the relevant population. The instruments were given to peer reviewers and experts from the department of Educational Psychology who judged the validity, relevance and competence of items so as to elicit the anticipated responses. They reviewed the appropriateness of the items selected in order to improve on the content validity. Their recommendations were incorporated in the final scale.

3.7.2 Reliability of Instruments

Reliability of the instruments was done through the test-retest method. This was done during piloting where the respondents responded to the questionnaires for the first time. The same questionnaires were again administered after two weeks to the same respondents. The scores were recorded and correlated to check for their reliability. Piloting was necessary in order develop and test the adequacy of the instruments. It was also done so as to identify any logistical problems relating to the instruments. Cronbach’s coefficient alpha was used to check the correlation among the variables in order to determine the level of reliability.

3.8 Data Collection

3.8.1 Logistical and Ethical Considerations

Logistical Considerations

Before starting the research, the researcher first obtained clearance from graduate school Kenyatta University authorizing the researcher to seek clearance from National Council for Science, Technology and Innovation (NACOSTI) to conduct the study. The researcher then
sought a research clearance permit from NACOSTI to carry out the research. Clearance was also sought from the County Director of Education allowing the researcher to carry out research within the schools in the county. Finally, the researcher wrote a letter to the principals in the various selected schools requesting them to allow the researcher to carry out the research in their schools. The researcher then visited the sampled schools and conducted familiarization meeting with each school principal. The purpose of the study and the anticipated benefits of the research to the school were explained to the principals and the appropriate day and time for collecting data was booked.

**Ethical Considerations**

The participants were informed about the purpose of the research. Confidentiality and anonymity was assured. This was done by reminding the participants not to write their names on the questionnaires. They were also assured that no risks were to be involved. Finally, a letter of consent was given to the participants so that they were able to participate in the study at their own free will.

### 3.9 Actual Data Collection

Data collection was done by the use of questionnaires since they were considered to be cheaper, economical to use and free from interviewer bias (Kothari, 2004). The participants were informed about the aim of the study by the researcher. They were given instructions on the completion of the rating scales. They were then given the questionnaires and allowed to complete them. They were informed that it is not an exam and therefore requested to take about fifteen minutes however, time for completion was flexible. All the explanations required by the participants were given by the researcher. After filling the questionnaires, they were handed in to the researcher who thanked the participants for participating.

An interview schedule was conducted after the administration of the questionnaires. This method was appropriate since it yields more detailed information, though it is time consuming (Kothari, 2004). Six students from each school making a total of 120 students were used. The students were selected using simple random sampling. After the informed consent, the interviews were carried out.

### 3.10 Data Analysis

After data collection, the SPSS programme version 20 was used to analyze quantitative data. The information was then transferred to several tables for tallying. This ensured that the right figures for each objective have been attained. Descriptive statistics was then be used to describe the information gathered through the questionnaires. After which, inferential statistics was used to test the significance of the results obtained concerning ability streaming and academic inferiority feelings. The null hypothesis for the study was:

\[ H_0: \text{There is no significant relationship between ability streaming and academic inferiority feelings among secondary school students.} \]

This was tested by Pearson product moment correlation coefficient.
Analysis of qualitative data which is non-numerical was also done in order to derive an explanation concerning academic inferiority feelings. The deductive approach whereby the research questions acted as a guide in grouping and analyzing data was used. This was then used to give the summary and conclusion concerning academic inferiority feelings.

4. Findings, Interpretation and Discussion

4.1 General and Demographic Information

This section gives general information on the return rate of the questionnaires and demographic data. It gives information on the type of schools, school ranking and the gender of the respondents.

4.2 Return Rate

The researcher visited all the sampled schools and administered the questionnaires to the respondents and ensured that they were properly filled and collected. 99.8 % (399) of the respondents filled the questionnaires properly and handed them over to the researcher. This represents 200 boys and 199 girls.

Table 3. Return Rate

<table>
<thead>
<tr>
<th>School Type</th>
<th>Gender</th>
<th>Expected</th>
<th>Actual</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M and F</td>
<td>M and F</td>
</tr>
<tr>
<td>BB</td>
<td>120</td>
<td>0</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>GB</td>
<td>0</td>
<td>120</td>
<td>120</td>
<td>119</td>
</tr>
<tr>
<td>MDB</td>
<td>40</td>
<td>40</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>MD</td>
<td>40</td>
<td>40</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>200</td>
<td>400</td>
<td>399</td>
</tr>
</tbody>
</table>

Note. BB= Boys Boarding GB= Girls Boarding MDB= Mixed Day and Boarding %= Percentage.

As shown in Table 3, 120 boys were expected to respond from boys’ boarding schools, and all of them properly filled in and collected the questionnaire which is 100 % of the total number of respondents from boys’ boarding schools. 120 girls from girls’ boarding schools were expected respond, but 119 of the girls properly filled in and collected the questionnaire which is 99.2 % of the total number of girls from girls’ boarding schools. In the mixed day and
boarding schools 80 respondents were expected to respond to the questionnaires, that is, 40 boys and 40 girls. All of them (100%) responded to the questionnaires properly and collected them. In mixed day schools, 80 respondents were expected to respond from each category, that is, 40 boys and 40 girls and all of them responded to the questionnaire properly and collected them. A total of 399 participants were able to fill the questionnaires properly and collect them.

4.3 Demographic Data

Table 4. Type of School and Gender

<table>
<thead>
<tr>
<th>School type</th>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>%</td>
</tr>
<tr>
<td>BB</td>
<td>120</td>
<td>30</td>
</tr>
<tr>
<td>GB</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>MD</td>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td>MBD</td>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>50.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School ranking</th>
<th>M</th>
<th>%</th>
<th>F</th>
<th>%</th>
<th>T</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top ranking</td>
<td>30</td>
<td>7.5</td>
<td>36</td>
<td>9.0</td>
<td>66</td>
<td>16.5</td>
</tr>
<tr>
<td>Average ranking</td>
<td>107</td>
<td>26.8</td>
<td>88</td>
<td>22.1</td>
<td>195</td>
<td>48.9</td>
</tr>
<tr>
<td>Low ranking</td>
<td>72</td>
<td>18.0</td>
<td>66</td>
<td>16.5</td>
<td>138</td>
<td>34.6</td>
</tr>
<tr>
<td>Total</td>
<td>209</td>
<td>52.4</td>
<td>190</td>
<td>47.6</td>
<td>399</td>
<td>100</td>
</tr>
</tbody>
</table>

Note. M= Male, F=Female, T=Total BB= Boys Boarding GB= Girls Boarding MDB= Mixed Day and Boarding %-=Percentage.

The participants’ gender was cross tabulated with type of school and school ranking and the results are shown in Table 4.2. The table shows that the male participants were slightly more than the female participants (50.1% boys, 49.9% girls). More male participants (30%) were from boarding schools as compared to mixed day or mixed day and boarding schools which
were represented by a total of 20%. The same applies to girls where girls from boarding schools were 29.8% as compared to girls from mixed schools where they were 20%, that is, 10% from mixed day schools and another 10% from mixed day and boarding schools. Almost an equal number of boys and girls participated from boys’ boarding and girls’ boarding schools (30% and 29.8%). On school ranking, 16.5% of the respondents were from the top-ranking schools, 48.9% from average ranking schools and 34.6% from low-ranking schools. There were more boys from average ranking schools (26.8%) as compared to low ranking (18.0%) and top ranking (7.5%). More girls participated from average ranking schools (22.1%) as compared to low-ranking schools (16.5) and top-ranking schools (9.0%).

Table 5. Type of school

<table>
<thead>
<tr>
<th>Type of school</th>
<th>F</th>
<th>%</th>
<th>Cumulative%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top ranking</td>
<td>66</td>
<td>16.5</td>
<td>16.5</td>
</tr>
<tr>
<td>Average ranking</td>
<td>195</td>
<td>48.9</td>
<td>65.4</td>
</tr>
<tr>
<td>Low ranking</td>
<td>138</td>
<td>34.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>399</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Note: F= Frequency, %= Percent.

Table 5 shows the number of students from different types of school that participated in the study. A very small percentage (16.5%) were from top ranking schools, 34.6% were from low-ranking schools while almost half of the participants (48.9%) were from average ranking schools. This shows that more students were from average ranking schools as compared to top- and low-ranking schools.

4.4 Results of the Study

4.4.1 Relationship between Ability Streaming and Academic Inferiority Feelings

The objective of this study was to find out the extent to which ability streaming influences academic inferiority feelings. Ability streaming scores of the participants were analyzed to get the range, mean, standard deviation, skewness and kurtosis as shown in Table 6.
Table 6. Description of Participants Academic Ability Streaming Score

<table>
<thead>
<tr>
<th></th>
<th>Range</th>
<th>Min</th>
<th>Max</th>
<th>M</th>
<th>SD</th>
<th>Sk</th>
<th>Kur</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASS</td>
<td>80.00</td>
<td>40.00</td>
<td>137.00</td>
<td>91.36</td>
<td>15.46</td>
<td>-.57</td>
<td>.7</td>
</tr>
</tbody>
</table>

*Note.* N=399; ASS = Ability Streaming Score; $M$= Mean; $SD$=Standard deviation; $Sk$= Skewness; $Kur$= Kurtosis.

The results in table 6 show that the minimum score was 40.00 while the maximum score was 137.00 with a range of 80.00. The mean score was 91.36 and the standard deviation 15.46. The coefficient of skewness was -0.57 meaning that the participants moderately rated themselves. Kurtosis was 0.7 which showed that the distribution was leptokurtic. This means that the distribution had a longer and fatter tail and its central peak is higher and sharper, meaning that many values concentrated around the mean.

The participants’ ability streaming score was further used to categorize the students as having low, moderate or high levels of inferiority feelings.

Table 7. Levels of Academic Inferiority Feelings due to Ability streaming

<table>
<thead>
<tr>
<th>Levels of AIF</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>18</td>
<td>4.5</td>
</tr>
<tr>
<td>Moderate</td>
<td>331</td>
<td>83</td>
</tr>
<tr>
<td>High</td>
<td>50</td>
<td>12.5</td>
</tr>
<tr>
<td>Total</td>
<td>399</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Note.* AIF= Academic Inferiority Feelings; F= Frequency; %= Percentage.

From Table 7 a small percentage (4.5%) of participants displayed low levels of academic inferiority feelings due to ability streaming. Majority of the participants (83%) had moderate feelings of academic inferiority due to ability streaming, whereas another small percentage (12.5%) had high levels of academic inferiority feelings due to ability streaming.
Table 8. Participant’s Academic Inferiority Feelings

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Range</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>S</th>
<th>skew</th>
<th>Kurt</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIFS</td>
<td>399</td>
<td>67.00</td>
<td>25.00</td>
<td>92.00</td>
<td>64.94</td>
<td>11.24</td>
<td>-.8</td>
<td>1.06</td>
</tr>
</tbody>
</table>

*Note. N=Total participants; Min= Minimum; Max= Maximum; S= Standard deviation; SK= Skewness; Kurt= Kurtosis.*

The data in Table 8 shows that the range is 67.00 while the minimum score and maximum score is 25.00 and 92.00 respectively. The mean is 64.94, standard deviation 11.24 and the skewness is -.8 meaning that the distribution is moderately skewed, while kurtosis is 1.06 which showed that the distribution is platykurtic.

b. Hypothesis testing

Hypothesis testing was done to find the relationship between ability streaming and academic inferiority feelings. The following null hypothesis was used:

H$_{01}$: There is no significant relationship between ability streaming and academic inferiority feelings.

Table 9. Relationship between Ability Streaming and Academic Inferiority Feelings

<table>
<thead>
<tr>
<th></th>
<th>AAS</th>
<th>AIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.305</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>399</td>
<td>399</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>AAS</th>
<th>AIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>.305</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>399</td>
<td>399</td>
</tr>
</tbody>
</table>

Correlation is significant at the 0.01 level (2-tailed).

This hypothesis was tested by subjecting the data to a bivariate correlation analysis using Pearson’s product moment correlation co-efficient. The results showed that, there was a
significant and positive relationship between ability streaming and academic inferiority feelings $r(399) = .31$, $p =0.01$ as shown on Table 9. The null hypothesis was therefore rejected.

c) Discussion of results

This finding shows that there is a significant relationship between ability streaming and academic inferiority feelings. This supports earlier studies of Micari and Drane (2011) on social comparison concern, comfort and self-efficacy in relation to performance, which reported that learning in groups especially according to individual ability makes students feel intimidated. Although the sample used by Micari and Drane (2011) was slightly less, the results showed that the low achieving students’ performance was affected because they were always compared with others therefore heightening their anxiety. When one’s ability is compared with others, anxiety among the students is always intensified making the students with low expectations for success to perform poorly. The findings also supported the findings of Matavire et al. (2012) that ability grouping resulted in streaming of teachers, students and even the resources used. The system is unfavourable and intimidating to both the students and the teachers leading to inferiority feelings especially among students.

The findings also supported what Boaler et al. (2010) found out from their longitudinal study. From their investigation, majority of the students who were interviewed were against ability streaming as it did not benefit them much. For the lower sets of students, the ability to learn was restricted while the students in the top sets who were expected to understand content very fast found the pace of the teachers too fast for their understanding. The range of teaching approaches with homogenous groups that was employed by teachers impacted upon the students negatively.

Beard (2018) also noted of the negative effects of tracking on the lower achieving tracks that mostly comprised of African-American students. In order to cater for the students’ wellbeing and academic achievement, there was need for detracking. This could also help in equitable distribution of both human and material resources. On the contrary, Houtte et al. (2012) argued that tracking had nothing to do with students’ self-esteem. According to his findings, self-esteem was significantly associated with an individual’s class position.

A study done in Malaysian schools was also supported by the current study. In Malaysia, students of different abilities were allocated different streams so that their individual needs could be attended to in their various educational settings (Mansor et al., 2016). This was a management strategy whereby streaming resulted to permanent groupings of students for the whole year. The previous year’s examination results were used as placement criteria. According to the study, streaming resulted to inter-group comparisons that were in favour of the higher ability group. The high ability group had high levels of self-esteem and confidence which enabled them to perform better than the rest. Streaming also limits peer support that lower ability students could have got from the higher ability groups. At the same time, it was discovered that streaming led to teachers practicing double standards and hence paying less attention to the lower ability groups. Teachers often claimed that, the lower ability class had discipline issues as compared to the high ability class.
The findings of the current study were in favour of Ramberg (2016). The study argued that grouping of students into different groups according to ability exposes students to an increased level of differentiation. It adversely affects the low achievers’ academic perception and hence academic achievement. This poses the risk of delinquency, dropout, low self-esteem, inferiority complex and other social problems. The high achievers are always advantaged in terms of academic achievement and personal wellbeing. Madeline and Koshy (2016) in their study also concluded that though ability grouping is advantageous to the high achievers’ group, sometimes it creates pressure on them so as to maintain a standard. It also creates fear of being moved to a lower group if they do not measure up to the required standards. For the low achievers, mixed ability grouping makes them feel more relaxed and confident. Additionally, Forgasz (2010) also concluded that streaming affected negatively the low achievers’ future in mathematics while it appeared to be in favour of the high achievers. The current study supports the findings of these studies.

The findings of the current study did not support the findings of Chiu et al. (2016) which revealed that grouping similar students together may affect their reading achievement in school. Streaming that is done within schools and tracking that is done within classrooms based on past literacy skills, family socio-economic status and reading attitudes is usually detrimental to the low achievers’ reading achievement. The study revealed that fourth-grade students had higher reading test scores when their schoolmates had similar reading and writing skills (school streaming) across schools but not across classrooms within schools. It was therefore concluded that streaming was linked to higher reading achievement while tracking was linked to lower reading achievement.

Stabler et al. (2017) reported that the academic self-concept of low achieving students is negatively affected when they are surrounded by the high achieving students. This brings about the effect of big-fish-small-pond effect (BFLPE). According to the study, class average achievement affects individual student’s academic achievement and academic self-concept. The results of the study further showed that class average achievement at the beginning of the school year and the negative effect on academic self-concept at the end of the school year were mediated by mid-term achievement but not mid-term academic self-concept which had a long term effect.

The findings of the current study also supported the findings of Becker and Neumann (2016). From the study, it was noted that ability streaming benefited high achievers mostly. It was observed that equally able students are more comfortable and perform better in low-achieving classrooms than when in high-achieving classes, an effect commonly known as BFLPE. On the contrary the findings of the study did not support Trangard et al., (2015) which revealed that achievement of students’ schoolmates and tracking was only relevant to students’ academic self-concept and the level of engagement among the low ability students and not on their academic feelings.

The current study supports Dumont et al., (2017) that those who achieve low have a low academic self-perception. On the other hand, Tereshchenko et al., (2019) reported that students with lower prior attainment preferred mixed attainment grouping and spoke
positively about it while students with higher prior attainment were not for mixed attainment grouping and spoke negatively about it. The lower prior attainment group performed better in classes of mixed ability as compared to students of higher prior attainment whose performance remained the same when placed in classes of mixed ability. According to Houttte and Stevens (2015), students in the lower track were more likely to lose faith in education than other students and put luck above working hard. They developed a sense of futility because of their low rank position. Mazenod et al., (2018) also noted that teachers labelled students in specific attainment classes according to their expectations of the group. The study further observed that low attaining students were given more practical work as teachers strongly felt that these students could not manage some activities done by the high attainment group. This made the students in the low attainment classes have a low academic perception about themselves.

Francis et al., (2017) noted that within school segregation of pupils by attainment had a damaging impact on the self-perception and the academic feelings on students in the low attainment group. Tracking also produces inequalities among student outcomes (Giersch, 2016) where students in the upper track perform better than those in the lower track. After testing, chances for success in college for the upper track students was highly predictable just like chances for failure for lower track students. The tests were a clear evidence to the lower track students that their chances of success were very low hence low academic inferiority feelings.

4.4.2 Gender Differences in Academic Inferiority Feelings

**Description of Gender Differences in Academic Inferiority feelings**

The participants’ academic inferiority feelings was analyzed against gender. As shown in Table 4.8, the number of girls who participated was 190(47.7%) while the number of boys was 209(52.4%).

<table>
<thead>
<tr>
<th>Gender</th>
<th>F</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>209</td>
<td>52.4</td>
<td>52.4</td>
<td>52.4</td>
</tr>
<tr>
<td>Female</td>
<td>190</td>
<td>47.7</td>
<td>47.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>399</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

*Note. F= Frequency, %= Percent.*

The participants’ academic inferiority feelings was analyzed also to find the mean and the
standard deviation. The results were summarized in Table 10.

Table 11. Gender Differences in Academic Inferiority Feelings

<table>
<thead>
<tr>
<th>Gender</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>67.11</td>
<td>209</td>
<td>9.57</td>
</tr>
<tr>
<td>Female</td>
<td>65.08</td>
<td>190</td>
<td>9.69</td>
</tr>
<tr>
<td>Total</td>
<td>66.14</td>
<td>399</td>
<td>9.67</td>
</tr>
</tbody>
</table>

Results in table 4.9 show that boys displayed higher feelings of inferiority as compared to girls. The mean in academic inferiority feelings for boys was 67.11 and 65.08 for girls. This clearly shows that boys had a slightly higher mean in academic inferiority feelings as compared to girls. The standard deviation in boys was 9.57 while in girls it was 9.69.

4.5 Qualitative Analyses

Qualitative research is important as it gives the interviewee greater freedom of expression and the ability to give authentic answers without any restrictions. Data that is collected in qualitative research is based on people’s perception and opinion. The data is therefore dependent on participants’ observation and personal experiences.

Qualitative analysis is done in order to get a personal insight perspective of the respondents’ views on their academic feelings. It gives the respondent the opportunity to express themselves more on various issues. The qualitative component provided insight on issues that are not provided for or those that are not exhaustively addressed by the quantitative methods. The respondents’ broad views and their realistic feelings are explored using qualitative methods. Furthermore, qualitative research allows for detail-oriented data to be collected. Restrictions are minimized and therefore many details are given. It is within the details that genuine insights tend to be found. It enables the researcher to explore the respondents’ views of the world.

4.6 Qualitative Findings

Data was collected though not without some few challenges. Firstly, a lot of clarification had to be done for the respondents to fully understand the questions. Despite the much clarification, some still answered some questions incorrectly. For this reason, not all the responses were provided for in the findings. Only data from the respondents that was well interpreted and responded to giving correct information was presented. Some respondents were not able to respond well in the English therefore from time-to-time Kiswahili was used in communication. Their responses were then interpreted and recorded in English.
Four respondents from each school were interviewed separately so as to get their views on academic feelings. One of the problems encountered is that some of the respondents especially girls were shy and took time to be free with the interviewer. Therefore, in the first few minutes, they could only give one-word answers and then later once they became freer, they could provide exhaustive answers. In some schools, especially the day schools, it was a challenge for most of the respondents to express themselves in English. The use of Kiswahili was very common even to the extent that some of the questions had to be explained further to them in Kiswahili so that they could have a better understanding of the questions. The respondents seemed to understand some of the issues under focus though some of the issues seemed to confuse them. A lot of explanation and clarification had to be done before they could exactly comprehend some of the aspects under study.

Diverse ways in which academic inferiority feelings occur were illustrated in various ways during the interview in regard to experiences in school. Regarding the treatment of students from different streams by the teachers, Beryl said without fear that she hates some teachers because they also hate them especially the girls from their class. According to her, this is because their class is always attributed to failure. “Our class is form 3 Green which is always ranked last in examinations, and every teacher in fact hates us”.

Linet from Beryl’s class confessed that she overheard a teacher tell another that our class is so hopeless and there is no need of teaching them. When she was asked how this makes her feel, she said that she does not struggle to get good grades, after all nobody will appreciate her. She openly revealed that she takes the last position in class and this does not affect her at all. Previously she could be punished because of the poor performance, but she prefers to stay outside doing a punishment rather than being taught in class by teachers who hate her. Furthermore, she also does not care about what the other students think of her when she takes the last position in class.

Ombasa, who is in a mixed school, reported that he wishes to move from his class to any other class. He wishes he could get boys who are hard working so that he can join in on discussion groups. The members of his class are all jokers and they do not like reading. He says that he cannot approach members of the other classes because they look down upon the members of his class. Grace also gave the same sentiments. Her worst moment in school is during the release of exams. “I do not like the way teachers call out our names on parade for a thorough scolding when we fail examinations”.

Ombati notes that their stream (Form 3D) is always ranked last during exams where either form 3A or form 3B ranks top. “That is why teachers have labeled us as form 3 dander heads)”. The whole class has therefore despaired because they feel that nothing good can come out of them. George who could barely express himself well in English simply said that school is just like jail. “I was made to repeat form three and am simply tired of school)”. Kaiser who is from the same class as George and Ombati says that he is comfortable in his class. He says that the whole class just needs to work hard and they can make it. He further says that he is only uncomfortable when teachers do not appreciate them when they show some improvement.
Beatrice confesses that most part of the term she is absent from school. She avoids exams as much as possible because after all she knew she will always be promoted to the next class. “Nobody can make me repeat a class, it is against the government policies. The only exam I will be serious about is the KNEC exam. Nobody cares whether I perform well or not, after all, I always take the last position in class”. Daisy, who happens to be a friend to Beatrice says she also has no interest in doing exams, in fact she never revises. “Exams are for those who perform well”, she says. Though she refused to reveal the position she takes in her class, she said that she would never desire to change her stream, because according to her, they are all at the same level unlike the other classes where they are all hard working.

Verah and Juliet who seem to have low academic inferiority feelings seem very different from their colleagues in the same class. They rank themselves above average and they feel that they are in the wrong class. They said that they could do better if they were in a different stream where there is competition. They enjoy discussion groups especially when they are mixed with students from the better performing streams. “I don’t blame our teachers for calling us lazy because most of our classmates are lazy”, says Juliet.

4.7 Discussion of Findings

The objective here was to find out how much ability streaming predicts academic inferiority feelings. From the quantitative data analysis, it was evident that majority of the students from low performing classes experience a moderately high academic inferiority feelings. From the qualitative data majority of the students who suffer from high academic inferiority feelings do not care a lot about school. They are just in school to complete the system without minding much about their performance.

From the interview, ability streaming predicts academic inferiority feelings a great deal especially from the way the students are treated by the teachers which is demeaning. This makes them feel inferior to an extent that they cannot join in on group discussions with other students from other streams or even interact freely with them.

5. Summary, Conclusions and Recommendations

5.1 Summary

This study was formulated to investigate ability streaming as a predictor of academic inferiority feelings among form three students in Kisii County, Kenya. The study also investigated the gender differences in academic inferiority feelings.

There is evidence that there exists a significant and positive relationship between student ability streaming and academic inferiority feelings. Majority of the students suffer from moderate academic inferiority feelings that is caused by ability streaming. It is only a very small percentage of students who experience very low levels of academic inferiority due to ability streaming and another small percentage of students form high levels of academic inferiority feelings.
5.2 Conclusions

This study has resulted into various conclusions. The results have presented some evidence of existing relationship between ability streaming and academic inferiority feelings. From the analysis, ability streaming leads to moderate feelings of inferiority among students. The high performing students tend to do well when grouped according to ability unlike the low performing students who do poorly when grouped according to ability. The high performers tend to feel more superior as compared to low performers who feel inferior. The low performers feel discriminated, isolated and looked down upon when grouped separately.

5.3 Recommendations

Based on the findings of the study, the following recommendations for policy and further research were made:

Policy Recommendations

i. The Ministry of Education should make an intervention towards ability streaming which is done in schools. It should advice the school management on the impacts of ability streaming which has been found to have a positive and significant predictive value on academic inferiority feelings.

ii. The Ministry of Education should re-evaluate the streaming of students into those that join national, extra county and county schools which is done according to the performance of pupils in their Kenya Certificate of Primary Education (KCPE). With this type of streaming students in the county day schools happen to be the ones who scored very low marks and will persistently score low marks because after all that is where they feel they belong. Intervention should be sought so that these students in the low performing county day schools do not feel academically inferior to those in the high performing national and extra county schools.

Recommendations for Further Research

The following suggestions were made in consideration for further research:

i. Findings of this study have shown that ability streaming has a significant and predictive value on academic inferiority feelings. However, the study was among form three students only. There is need for further research among the rest of the classes in secondary school.

ii. The results of this study carried out in one county will be generalized to the rest of Kenyan secondary school student population. There is need for further research in the rest of the counties in order to control for the effects of cultural, geographical and economical differences.

iii. The findings of this research have indicated that ability streaming is a great contributor to academic inferiority feelings. Further research should be done to determine whether there could be other factors apart from these one that could contribute to academic inferiority feelings. Home and other school factors like grading and class retention
should be studied to find out their contribution to academic inferiority feelings.

iv. From the study, it was assumed that ability streaming is the only factor that leads to academic inferiority feelings which obviously affects their academic performance in class. Further studies should consider investigating other possible consequences of the ability streaming in schools apart from academic inferiority feelings.

v. This study was done with students from secondary schools only. A similar study should be replicated to students from different levels of learning to include primary schools, colleges and universities so as to find out the extent to which ability streaming relates to academic inferiority feelings at these levels of learning. The measurement scales used in the study should be modified and standardized so as to suit the students from the different levels of learning.

vi. The current study targeted the student population only as participants. A similar study should be done to include principals, teachers, parents and other stakeholders who greatly contribute to the education sector.

References


Dai, D. Y. (2000). To be or not to be (challenged), that is the question: Task and ego orientations among high ability, high achieving adolescents. The Journal of Experimental Education, 6(1), 311-330. https://doi.org/10.1080/00220970009600641


**Copyright Disclaimer**

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).