Student Academic Engagement and the Academic Achievement of Form One Students in Dadaab Refugee Camp, Kenya

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Abstract: The final major examinations in Kenya (KCPE & KCSE) have continued to heighten anxiety among students as they are regarded by most Kenyans (both parents and students) as the bridge to a promising future. Students can go to any length to ensure that they score a quality grade. Many factors have been attributed to academic underachievement, one of them being their academic engagement. The purpose of the study was to determine the relationship between student academic engagement and academic achievement among form ones students in Dadaab Refugee Camp, Kenya. The study was anchored on the Social Cognitive Learning by Albert Bandura. The study adopted a correlational design in order to be able to investigate and analyze the relationship between the two variables. It also used simple regression to find out whether the various variables would predict test scores. The study was conducted in four public schools of Dadaab refugee camps in the North-Eastern part of Kenya. The target population consisted of students and teachers. The sampling technique was that of convenient, purposive and systematic sampling in that order, where thirty-five participants were selected from each school, to sum up to one hundred and thirty-eight form one students and a total of thirty-four teachers. Research instruments included questionnaires for teachers and students, while interview schedule was for teachers. The results revealed that student academic engagement positively and significantly predicted test scores.

Key Words: student academic engagement, academic achievement, Dadaab Refugee Camps, form ones.

I. INTRODUCTION

The desire to pass in examinations and secure a ‘good’ school after primary education is one of the burning desires of each candidate who sits for the Kenya Certificate of Primary Education. Unfortunately the release of exams has been sometimes met with sad incidences. After the release of the Kenya Certificate of Primary Education in the year 2012, it was reported that two female pupils from Kericho County and Kathiani Constituency who scored 145 and 303 marks respectively committed suicide (Daily Nation, 2012). These may be the few cases that are reported because many go unreported. It is important to establish whether these low scores would have satisfactorily determined their performance in the Kenya Certificate of Secondary Education. Low achievers have been labeled as failures in life. At most instances, low academic achievement has been irrationally attributed to low intellectual development. However, research has shown that, other than the intellectual development, they are many other personal and social factors that are related to low test scores among students.

In addition to this, there have been many cases where excellent students in primary school exhibit poor performance in secondary school and hence end up failing in the final examinations. Students brilliant in one level of education are expected to perform well in their next level of education of which the contrary may lead to immense wastage. The biggest question is why do such students perform poorly or below expectation in high school? Leading researchers have suggested that the transition to junior high school and the associated difficulties experienced by new students contribute significantly to numerous negative long-term outcomes including high school dropout, social and emotional difficulties, and frequent alcohol and drug use (Eccles, Lord, Roeser, Barber, & Jozefowicz, 1997).

The transition from elementary to junior high school is an important step in a student’s school experience. However, this phase has also long been, associated with a decline in academic performance (Barber & Olsen, 2004), and student perceptions of academic competence and self-esteem. After making the transition to high school, students report that their courses are more difficult, their teachers are stricter, and making friends was more difficult than in elementary school (Anderson et al., 2000). Secondary schools have been found to be relatively bigger, more heterogeneous, more compartmentalized, less tolerant, more rule bound, more concerned with ability, and less personal, than are elementary schools.

Anderson et al. (2000) points to the cluster of school environment issues which keep schools from conforming to the developmental needs of youth. For example, classroom organization, instruction, ethos, task structure, ability grouping practices, evaluation techniques, motivational strategies, locus of responsibility for learning, and quality of student-teacher relation. In high schools, there is more focus on control and discipline with fewer opportunities for choice and decision making.

Lower levels of cognitive engagement in class work have been found in secondary schools. British, American, and
Australian studies have reported student disillusionment at the lack of academic challenge in their early secondary school experiences (Mullins & Irvin, 2000; Office of Her Majesty’s Chief Inspector of Schools, 2002 all cited in McGee, 2003). One study found that students handed in inferior work in order to meet deadlines, finding that the volume of work increased rather than the difficulty level, and as a result felt a lack of control over their own work.

McGee et al.’s (2003) review shows that there are gaps in subject content, inconsistencies in expectations of students, and differences in teaching and learning practices. Secondary schools have been found to be whole class, task oriented, much less individual instruction, fewer individual variations of assignments, and with teacher use of more social comparisons, competitive grading, and normative grading. Kvalslund (2000), reiterated that the pedagogical shifts in high school are from child to teacher centered. Students are also adept at describing the significant changes in school practices, teaching, and social relations that accompany the move into secondary school (Pietarinen, 2000). They found the teachers and teaching “quite boring and quite different” with fewer possibilities of real involvement and “action”. Student-teacher relations also in secondary schools becomes less personal, less positive, less supportive, less caring, and teachers were found to trust students less.

The perceived change in student-teacher relations and student support in high school significantly explained changes in levels of academic, personal, and inter-personal functioning achievement (Barber & Olsen, 2004). Teachers believe themselves to be less effective, especially with students who are struggling academically. Student-teacher relationships are a critical part of the learning experience. Many studies have shown that shifts in this relationship during the transition can create risks for students. In general, the principles of care and control are seen as the core of elementary school culture while academics, student polarization, and fragmented individualism have been found to pervade secondary school cultures. Regarding the social front, secondary schools are seen as a place to gain social status and to begin to set the norms of what it means to be “grown up”. However, it is also a cultural institution with a more hegemonic frame in which the older students “own it” and the newcomers “inherit it” (Kvalslund, 2000). Another part of this age-related hegemony is that play is a part of the past, is no longer serious, becomes forbidden, and certainly not to be initiated by form one students.

Without play, students find the breaks long and strange. Play becomes sport in secondary school, and thus the availability of sport to students becomes critical, especially for students who are disintegrated and isolated (Kvalslund, 2000). Extensive study of students’ academic performance across the high school transition consistently shows that from middle to high school, students experience declines in grades (Barber & Olsen, 2004) and school engagement.

In summary, therefore, given the importance of the decisions made based on the test scores, and the clear-cut differences between primary and secondary school, some students may fail to adjust well to the secondary school life, thereby affecting their eventual performance. In lieu of this, many educational researches have not been done on the factors that may explain the individual difference in performance at the learning levels and especially form one. It was therefore imperative that student academic engagement be researched on to shed some light on the factors that may affect the academic achievement among form ones and to make the necessary amendments to make secondary school more favorable for form ones.

This study focused on Fredricks et al.’s (2004) framework that focuses on three types of student engagement; behavioral, cognitive, and emotional. Most students participate in academic and non-academic activities at school, and develop a sense of belonging—they are there, they have good relations with teachers and other students, and they identify with and value schooling outcomes. But many students are not engaged. Gradually these students withdraw from school life and become disaffected from school. Researchers, educators, and policymakers are increasingly focused on student engagement as the key to addressing problems of low achievement, student boredom and alienation, and high dropout rates (Fredricks, Blumenfeld, and Paris 2004). Student engagement measures have been shown to correlate positively with achievement and negatively with the likelihood of dropping out of school (Fredricks, Blumenfeld, and Paris 2004). Engaged students are more likely to earn better grades and perform well on standardized tests (Fredricks, Blumenfeld, and Paris 2004; Marks 2000). The importance of student engagement with school is recognized by educators, as is the observation that far too many students are bored, unmotivated, and uninvolved, that is, disengaged from the academic and social aspects of school life.

Two major 330 studies have employed longitudinal data to examine the long term effects of student engagement on academic achievement (Alexander et al., 1993; 1989; Voelkl, 1997). First, in the study by Alexander et al. (1993), teachers used a survey from Wave 1 (1976–1977) of National 335 Survey of Children project to rate first-grade students’ engagement in the classroom. This study showed that the first graders’ academic engagement behaviors predicted their academic achievement 3 years later as measured by the California Achievement Tests. This study suggested a lasting association between students’ engagement behaviors and their academic achievement.

A second longitudinal study by Voelkl (1997) examined the relationship between academic achievement (in reading, language arts, mathematics, science, and social science) and student engagement 380 measures. Results from the study showed that students’ Comprehensive Test of Basic Skills scores at Grade 4 were significantly related to the teacher ratings of student participation at Grade 8. This association
indicates that academic achievement continues to relate to school engagement 4 years later.

The importance of student engagement has also been documented in large-scale assessments such as the National Assessment of Educational Progress (NAEP; Campbell, Voelkl, & Donahue, 1997), Early Childhood Longitudinal Study (Finn & Pannozzo, 2004), and the National Educational Longitudinal 400 Study of 1988 (NELS: 88; Finn, 2006; Finn & Rock, 1997). Strong 415 associations between reading engagement and reading scores were found within all three age groups. Finn and Rock (1997) focused on lower income students in their secondary analyses of data from the NELS: 88. They reported a strong relationship between student engagement (measured by student self-reports and teacher ratings) and academic achievement.

A third study by Finn (1993) using NELS: 88 data examined 5,945 at-risk (based on race, home language, or socioeconomic level) eighth graders to clarify whether level of participation and classroom and/or emotional engagement explained variations in mathematics and reading achievement tests. These results suggested that: identification with school was related to participation, participation was related to achievement, and that levels of participation predicted the variation in reading and math achievement of at-risk students.

From the above therefore, research literatures on engagement generally reflect a relationship between student engagement and academic achievement in reading and mathematics among primary grade 3-5 students in European countries. However, the study in here is cross-sectional study and dealt with form one students in an attempt to find out whether there is a difference in academic engagement and academic achievement at different levels of learning. In addition, none of the three studies focused on the three levels of engagement simultaneously, this study however looked into all three levels of engagement: cognitive, behavioral and emotional at the same time.

II. STATEMENT OF THE PROBLEM

The central problem of this study was that, despite very distinct changes and differences between primary and secondary school life, form one students have had to adapt to secondary school without pre-planned guidance on critical issues that shape their academic lives at the secondary school level, such as: the different forms of exam methods, strictness in standards for judging performance, strictness in school work, less play and less student-teacher interaction. For instance, the change from multiple choice questions to essay based questions, the expectations at secondary school level where they must explain what they have learnt in prose rather than selecting symbols hence quality of handwriting judged. The transition from elementary to junior high school is an important step in a students’ school experience.

The lack of prior guidance might be the cause of low academic performance among some form ones. According to Barber & Olsen (2004), this phase has also long been associated with a decline in academic performance. The different test-taking techniques and school climate may cause disengagement as well as many other factors and may be a source of test anxiety, consequently having an impact on the test scores. Some form one students have also failed to adapt to secondary school because of the feeling that they were admitted to a wrong school that was not of their choice and, hence seeking transfer.

In addition, with the current and rising concern about the quality of public education and our increasing reliance on test scores to measure academic achievement there is a growing number of students who experience test anxiety. Perhaps, if there was a transition program that could offer guidance to class eight leavers on secondary school life, then, their performance at the secondary school would be better, school drop-out may lessen and form one students may be more enthusiastic about school.

It is not exactly known what factors may be held responsible in explaining the differences, consistencies and inconsistencies in performance at primary and secondary school levels amongst form one students. It is therefore imperative that, these personal and socio-contextual factors be researched on to shed some light on the factors that may affect the test scores among form ones and to make the necessary amendments to make secondary school more favorable for form ones.

III. THEORITICAL FRAMEWORK

The study was guided by Socio-cognitive theory by Albert Bandura. Bandura (1977) defined learning as an internal mental process that may or may not be reflected in immediate behavioral change and postulated that human behaviour is as a result of interplay of factors both inside and outside the individual. He suggested that personal factors like cognition, biological variables and other internal events like a person’s beliefs and expectations relevant to ability are related to behaviour which affects the external environment. In the same way, the environment can influence the person’s feeling and cognition.

According to Bandura (1986), one of the basic principles of learning is that learning is as a result of reciprocal causation or determination. This implies that learning involves the interaction of several factors, such as behavior, environment, storing information in memory and personal factors.

This theory was of great significance to the study, because it concurs that student academic engagement affects learning. In addition to that, success on a first attempt on a task may change internal events such as feelings about the circumstance involved with the success.

IV. METHODOLOGY

The study adopted a correlational design because it is appropriate in discovering the existence of relationships...
between variables and the degree to which the variables relate and simple regression to examine whether each independent variable would predict the dependent variable (Mugenda and Mugenda, 1999). Here, the relationship determined was the degree to which student’s academic engagement affected the academic achievement of form one students. The study was conducted in four public schools of Dadaab refugee camps in the North-Eastern part of Kenya. The location of the study was chosen owing to the researcher’s familiarity with the area, and because of available existence of the characteristics that the researcher was interested in.

V. PARTICIPANTS
The population of study consisted of four hundred form one students, both boys and girls in equal numbers, and of mean age fifteen and thirty-four form one teachers of four secondary schools. The rest of the classes, from form two to four were not chosen, as the study was interested only in form ones because they are the first class immediately from primary school and these factors are directly unique to them. From the seven secondary schools, one hundred and thirty eight form one students and thirty four form one teachers were sampled. A total of thirty-five form one students and nine teachers from each of the four schools formed the sample. In addition, out of the eleven subjects studied by form ones only three subjects were examined.

VI. MEASURES
Close-ended questionnaires were used to collect data on the students. Student academic engagement was measured using the High school survey of student’s engagement developed by Center for Evaluation and Education Policy (CEEP, 2009) in the Indiana University. The questionnaire was subdivided into two sections, where Section A contained an introduction to the questionnaire and biographical data of the respondent, while section B contained the statements. Each of the statements were scored on a four-point Likert-type scale, ranging from 4 (Strongly agree) to 1 (Strongly disagree). The positively and negatively worded questions were randomly arranged in the questionnaire.

VII. PROCEDURE
The validity and reliability of the instruments were measured, phrasing of the questions. To ensure content validity, discussions concerning the instrument were done with the educators and experts in the field of tests and measurements. In addition, guidance from the university supervisors in the department of Educational psychology was sought to examine the content validity of the questions.

In this study, a panel of four judges, competent in the area of investigation, was requested to assess the reliability of the content in the instruments developed. The individuals examined the questionnaires separately and provide feedback. Their recommendations were incorporated in the final questionnaires.

The piloting was conducted in secondary schools which were not among those included in the actual study. These minimized chances of the Hawthorne effect. The sample consisted of five male and five female students of form one. The reliability and validity of this instrument was ensured with procedures explained later. This exercise took one day. To ensure reliability, a pilot study was conducted in a population similar to the target population, but was not used in the final study, followed, by a test-retest. Gay (2003) posits that reliability is determined by establishing a relationship between the scores of the same group at an interval of two weeks apart. In addition, items found to be inadequate during the pre-test were discarded or modified to improve the quality of the research instrument thus increasing its reliability.

Pearson product moment correlation coefficient was used to compute the correlation coefficient of the two sets of scores as follows: Firstly, the developed questionnaire administered to identical respondents then the completed questionnaire was scored manually, and scores analyzed. Thirdly, the questionnaire was administered to the same respondents after two weeks. Finally, the second set of scores was analyzed manually and comparison of the two set of scores done using the formulæ:

$$R_x = \frac{\Sigma xy}{\sqrt{\Sigma x^2 \Sigma y^2}}$$

Items were considered reliable if their reliability coefficient is 0.80 and above. A high coefficient implies that the items correlate highly among themselves, that is, there is internal consistency among the items in measuring the concept of interest and vice-versa.

In the actual data collection, the researcher administered questionnaires and the respondents filled them in immediately. The responses of the questionnaires were recorded on a four-point Likert scale. One hundred and thirty-eight form one students participated in the study. Convenient sampling was used to select four schools out of the eight secondary schools based on the accessibility of the schools due to security impediments as movement from one camp to another is enabled only by means of police escort. Stratified random sampling was used to ensure that form one students both female and male students were selected and at equal numbers to ensure representativeness. Systematic random sampling was used to select students from each class based on the class register to come up with fifty students. Purposive sampling was used to select the subject areas on whose test scores were examined to ensure that each group of subjects is adequately represented. They were grouped into languages, sciences and humanities. Convenient sampling was used to select four schools to be used in the study.

VIII. RESULTS
The demographic characteristics of respondents were analyzed along age, sex and academic performances for the students and gender, subject taught and professional
qualifications for the teacher respondents. This section was subdivided into two; background information for the students and that of the teachers. In the study, 50.72% of the form one respondents who participated in this study were between 18 and 20 years of age, compared to 29% of the respondents who were below the age of eighteen years. Further, 20.28% of form one respondents were over 20 years of age. Age was considered an extraneous variable that is likely to affect the academic performance of students. Cognitive development and maturity (which are associated with age) are necessary for worthwhile performance of students. As the age of an individual increases, it usually affects the various developmental changes. It also affects every area of human performance (Ukueze, 2007).

Student gender was considered in this study. Gender relates to the difference in sex (that is, either male or female) and how this quality affects their dispositions and perception toward life and academic activities (Okoh, 2007).

a) Distribution of student respondents by age

Table 1 shows the distribution of respondents by age group. Majority of form one respondents were between eighteen to twenty years of age.

<table>
<thead>
<tr>
<th>Age</th>
<th>F</th>
<th>%</th>
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<tbody>
<tr>
<td>Below 18 years</td>
<td>40</td>
<td>29</td>
</tr>
<tr>
<td>18-20 years</td>
<td>70</td>
<td>50.72</td>
</tr>
<tr>
<td>Over 20 years</td>
<td>28</td>
<td>20.28</td>
</tr>
<tr>
<td>Total</td>
<td>n=138</td>
<td>100</td>
</tr>
</tbody>
</table>

The results in table 1 report that, 50.72% of the form one respondents who participated in this study were between 18 and 20 years of age, compared to 29% of the respondents who were below the age of eighteen years. Further, 20.28% of form one respondents were over 20 years of age. Age is considered an extraneous variable that is likely to affect the academic performance of students. Cognitive development and maturity (which are associated with age) are necessary for worthwhile performance of students. As the age of an individual increases, it usually affects the various developmental changes. It also affects every area of human performance (Ukueze, 2007).

b) Distributions of student respondents by gender

Student gender was considered in this study. Gender relates to the difference in sex (that is, either male or female) and how this quality affects their dispositions and perception toward life and academic activities (Okoh, 2007).

Majority of the student respondents were male who formed 57% of the form one students who responded to the study. Female student respondents consisted 43% of the total form one students who responded to the study. Buadi (2000) underscores that, difference in gender as it affects students’ and academic performance is inconclusive. This has necessitated the need to explore any significant difference between male and female form one students as reflected in their academic performance and in test scores in particular.

c) Distribution of student respondents by academic performances

Student respondent’s academic performance was considered for the study. The distribution of respondents by academic performance is shown in figure 2.

Figure 2 reports that, majority of boys performed better than their female counterparts. More girls than boys fall below the average category given that the number of girls who participated in the study was less than that of the number of boys. Buadi notes that difference in gender as it affects
students’ and academic performance is inconclusive. This necessitated the need to explore any significant difference between male and female form one students as reflected in their academic performance and in test scores in particular.

d) Distributions of teacher respondents by gender

Teacher’s gender was considered in this study. Figure 3 points out that, majority of the teachers who responded to the study were female, forming 55% of the teacher respondents compared to 45% of male teachers. Teacher gender is related to class environment. Several studies suggest that, male teachers provide a more positive atmosphere for boys (Etaugh & Hughes, 1975; McCandless, Bush & Carden, 1976); however, relative to male teachers, Stake and Katz (1982) argue that, female teachers tend to provide a more positive classroom atmosphere overall. After observing 40 class sessions, Einarsson and Granström (2002) observed that, male teachers increase the attention paid to girls as pupil’s age, while female teachers consistently give more attention to boys.

e) Professional and academic qualifications of respondents

Figure 4 shows professional and academic qualifications for teacher respondents. 80% of the teachers who responded to the study had undergraduate level of education. 5% of the teachers had college education while 15% of the teachers had O-level education. The majority of the teachers who responded to the study were female, forming 55% of the teacher respondents compared to 45% of male teachers.

Majority of the student respondents were male who formed 57% of the form one students who responded to the study. Female student respondents consisted 43% of the total form one students who responded to the study. Buadi (2000) underscores that, difference in gender as it affects students’ and academic performance is inconclusive. This necessitated the need to explore any significant difference between male and female form one students as reflected in their academic performance and in test scores in particular. The results of the study of the relationship between Student Academic Engagement and test scores revealed that that 54.21% of the form one students were in strong agreement with these measures and 24.37% in agreement, 13.46% strongly disagree and 7.24% agreed, 5.2% were unsure as demonstrated in figure 4 below.

As to whether they enjoy the classes they are taking; 46.1% strongly agreed, 23.5% agreed, 11.3% strongly disagreed, 7.8% disagreed while 11.3% unsure. These results are positive and generally reveal that most form one students are engaged academically.

Table 1.2 Relationship between student academic engagement and test scores

<table>
<thead>
<tr>
<th>Aspect</th>
<th>N</th>
<th>Rx</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total scale scores and test scores</td>
<td>138</td>
<td>0.753</td>
<td>0.01</td>
</tr>
<tr>
<td>Student academic engagement scale scores and test scores</td>
<td>138</td>
<td>0.794</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Table 1.3 Regression analysis of student academic engagement and test scores

<table>
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<tr>
<th>Simple Regression Analysis</th>
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</thead>
<tbody>
<tr>
<td>Model</td>
<td>β</td>
<td>t-value</td>
<td>Significance</td>
<td>R square</td>
</tr>
<tr>
<td>Student Academic Engagement scale scores</td>
<td>-0.251</td>
<td>-0.6700</td>
<td>0.01</td>
<td>0.653</td>
</tr>
</tbody>
</table>

Results in table 1.3 concluded that, a strong positive and significant relationship exists between students’ test scores
and total scale scores as well as on subscales scores. It also found that test score is significantly related to student academic engagement scale. The range of relationship of each scale is more than 75% which is very strong in magnitude. Further analysis to investigate the possibility of student academic engagement as a predictor of students’ test score was carried out. Simple regression analysis was used to investigate the cause-effect relationship between test scores and student academic engagement scale scores. The results showed that 65% of the variation in form one students’ test score can be explained by their level of academic engagement. The results indicate that student academic engagement is a predictor of form one students’ test score.

IX. DISCUSSION

The findings of the study revealed that student academic engagement and test scores, the findings of the study indicated that a strong positive and significant relationship exists between students’ test scores and total scale scores as well as on subscales scores. The study reported that, generally, form one students are enjoying their classes; they revise previously solved work and are generally happy when they understand what is taught in class. It also concluded that, test score is significantly related to student academic engagement scale. The range of relationship of each scale is more than 75% which is very strong in magnitude. The results indicate that student academic engagement is a predictor of students’ test score.

X. LIMITATION

The research instruments for collecting data were the questionnaires and this made it impossible to identify all the variables affecting the test scores of form ones apart from student engagement. The study was also only done on form ones as they are the immediate class from primary school. This hindered generalization of the findings to the subsequent classes.

XI. CONCLUSIONS

The study concluded that there is a strong connection between the student’s level of academic engagement and their performance in class. This concurred with the existing literature review. The implication of this findings therefore that teachers have a big role to support students academically in any way they can as it plays a great role on the academic achievement of students. Having studied a student’s academic ability, they should help the students to set realistic targets in education.

XII. FURTHER RESEARCH

The study recommended that Teachers should support students academically in any way they can as it plays a great role on the academic achievement of students. Having studied a student’s academic ability, they should help the students to set realistic targets in education. In addition, the study covered only four schools in Dadaab refugee camp and the respondents mostly were refugee students, similar study needs to be done with a larger sample in North Eastern Province and the entire county to find out whether the results will be the same.

ACKNOWLEDGEMENTS

I wish to thank the administration and the students of the sampled schools ,whom through their cooperation made the study a success.

REFERENCES


