

Impact of Attitudinal Adaptation on Academic Achievement among Students: A Comparative Study of Boys and Girls in Boarding Secondary Schools in Meru County, Kenya

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Abstract

This study sought to examine the impact of attitudinal adaptation on academic achievement among boys and girls in boarding secondary schools in Meru County in Kenya. The descriptive survey research design was adapted for the study whose sample size was 384 students, school counsellors and deputy principals in the boarding secondary schools. The research instruments consisted of questionnaires and interview schedules. Data analysis was enabled by use of the Scientific Package for Social Sciences version 20.0. Both descriptive and inferential statistics were employed for data analysis. The findings revealed that attitudinal adaptation had a positive impact on academic achievement but there were no significant differences in the impact between boys and girls in boarding secondary schools within Meru County in Kenya. It was therefore recommended that school administrators needed to improve the image of secondary schools through rebranding, upgrading the furniture and equipment as well as maintaining the school compounds. The Ministry of Education could also set minimum quality standards for school resources such as size of rooms and nature of furniture and equipments while school counsellors could design programs geared towards helping students in general attitudinal adaptation.

Keywords: Attitudinal adaptation, Academic achievement.

1. Introduction

Attitude refers to the feelings, beliefs or opinion towards education that may affect students' behavior in school. Eggen and Kauchak (2001) refers attitude to learned predisposition to respond in a favorable or unfavorable manner to a particular person, behavior, belief or things. The social psychologists generally consider attitude to follow the ABC Model of attitudes which suggests that an attitude has three components: Affect, Behavior and Cognitive Hendrikz (2006). The Affect component is the positive or negative emotions about something; how one feels about it. The behavior component consists of predisposition or intention to act in a particular manner that is relevant to the attitude. The cognitive component refers to the beliefs and thoughts people hold about the object of their attitude. For example, a student's attitude towards a particular school may consist of positive emotions (Affect), an intention to go join that school (Behaviour) and the belief that he/she will do well academically in that school (Cognition).

The attitude formation and development can be explained on the basis of learning principles. The classical conditioning process that Pavlov's dogs salivate at the sound of a bell explains how attitudes are acquired (Mwangi, 2009). People develop associations between various objects and the emotional reactions that accompany them. For example, many people who were near the American Embassy during the August 7th 1998 bomb blast in Nairobi, Kenya, would never want to pass anywhere near that area. They associate the area with bad luck and have formed a negative attitude towards the bomb blast area. Likewise, positive association can develop through classical conditioning like most advertisers make use of the principle of classical conditioning of attitude by attempting to link a product they want consumers to buy with a positive feeling or event (Kabiru & Njenga, 2007). Thus, attitudes strongly affect how a person perceive and respond to objects, events and other people.

Attitude influences learners socially, cognitively, behaviorally and vicariously where positive attitude enhances learning and negative attitude inhibits learning (Mwangi, 2009). Factors that may indirectly affect learning through attitude formation include: the Physical environment (School infrastructure such as classrooms, furniture, dormitories, and sanitary facilities), teaching and learning materials, teacher characteristics (being friendly, warm, welcoming, caring and loving), parents characteristics as well as children's physical characteristics for example children with special need. Mutie and Ndambuki (1999) postulate that students' positive attitude towards a subject, the teacher and self affects performance because academic success is in the personal will. Therefore, the study sought to examine the impact of attitudinal adaptation on academic achievement among boys and girls in boarding secondary schools in Meru County in Kenya.

2. Objectives

The objective of this study was to determine whether there were significant gender differences in the impact of attitudinal adaptation on academic achievement in boarding secondary schools in Meru County in Kenya.

3. Methodology

The descriptive survey research design was employed for the study. A sample of 384 participants was drawn from the target population of 55,224 respondents comprising of students, school counsellors and deputy principals of secondary schools in Meru County. The techniques used in obtaining the sample were purposive sampling and simple random. The research instruments utilized in data collection were questionnaires and interview schedules. The instruments were validated by the University Supervisors and research experts while reliability of the instruments were estimated by use of split-half technique. A correlation coefficient of 0.78 was obtained and considered appropriate for the study. Permission to conduct the research was granted by the National Commission for Science Technology and Innovation. The Statistical Package for Social Sciences version 20.0 was engaged for data analysis using inferential and descriptive statistics. The findings were then presented in Tables, Bar Graphs and Pie Charts.

4. Results of the Study

The study findings were as follows:

4.1 Demographic Characteristics of the respondents

There were an equal number of boys and girls who participated in this study. This was to enable comparison based on gender of students about the impact of attitudinal adaptation on academic achievement. Majority (50.6%) of the students were 17 years old while 33.9% were aged 16 years. The students who were 18 years old comprised 10.8% and the rest of the students were either 19 years and above or below 16 years old. The students were also required to rate themselves with respect to academic achievement. Majority (63.3%) of the students indicated that they were average, 27.2% above average while 9.4% regarded themselves as below average. Findings on the gender of school counsellors revealed that 41.7% were male while 58.3 were female. Most of the school counselors had a work experience of more than 5 years, 25% had worked for a period of between 3 years and 4 years while 16.7% had served for less than 1 year and between 1 year and 2 years each. Concerning the highest level of education, most school counsellors (50%) had a Bachelors Degree, 41.75 had Masters Degree while 8.3% had a Diploma. Majority (75%) of the school counsellors were married while the remaining 25% were single. The composition by gender of the Deputy Principals' was proportional with an age range of between 40 and 50 years. Majority (58%) of the Deputy Principals had Bachelors Degree while 48% had a Masters Degree. Most (53%) of the Deputy Principals had served in the current position for more than five years, 32% had served between 2 years and 5 years while 15% had served for less than 2 years.

4.2 Impact of Attitudinal Adaptation on Academic Achievement

An item in the questionnaire required the student to indicate their level of agreement with the impact of attitudinal adaptation on academic achievement on a 5 level likert scale rated 5=Strongly Agree, 4=Agree, 3=Undecided, 2=Disagree and 1=Strongly Disagree. A mean score below 2.5 indicated Low Impact, between 2.5 and 3.5 indicated Moderate Impact while a mean score above 3.5 indicated High Impact. The findings were represented in Table 1.

Information in Table 1 indicates an overall mean of 3.69 and a standard deviation of 1.22. this was a reflection of a high impact of attitudinal adaptation on academic achievement among secondary school students. Among the attitudinal adaptation factors that had moderate impact on academic achievement were appreciation of the school location and acceptance of school meals with means on 2.83 and 2.88 respectively. The students' interest in learning had the highest impact on academic achievement with a mean of 4.48 and a standard deviation of 0.93.

Students were required to indicate their general attitude towards school. The findings were presented in Figure 1.

Table1: Students’ Perceptions on Impact of Interpersonal Adjustment and Academic Achievement

Attitudinal Adaptation and Academic Achievement Statements	N	Mean	Standard Deviation
Acceptance of my school has positively influenced my academic achievement	360	4.32	0.96
Acceptance of my home environment has influenced my academic achievement positively	360	4.13	1.17
The happiness I feel during the school opening days has positively influenced my academic achievement	360	3.26	1.44
My enjoyment of school life has enabled me to perform well academically	360	3.97	1.19
Appreciation of my school name has had a positive influence in my academic achievement	360	3.31	1.43
My competence to manage my level of anxiety during exam time has enhanced my academic achievement	360	4.06	1.05
My interest in learning has boosted my academic achievement	360	4.48	0.93
Acceptance of school meals has positively influenced my academic achievement	360	2.88	1.50
Appreciating my choice of subject has enhanced my academic achievement	360	3.40	1.41
Appreciating the location of our school has boosted my academic achievement	360	2.83	1.02
Feeling nice in my school uniform has contributed to my good performance academically	360	3.29	1.50
Appreciation of words of inspiration I get through my school life has impacted positively on my academic achievement	360	3.26	1.37
My feelings that am in the school of my choice has boosted my academic achievement	360	4.38	0.97
My perception on impromptu inspections done in our school has no effect on my academic achievement	360	3.33	1.31
Appreciating the services offered through Guidance and counseling department has boosted my academic achievement	360	4.09	1.13
The reception I received when I joined this school has positively influenced my academic achievement	360	3.44	1.35
Acceptance of our school infrastructure has influenced my academic achievement positively	360	3.40	1.32
My academic achievement is positively influenced by appreciating my parents ability to meet my immediate needs and pay my school fees	360	4.66	0.85
Overall mean on impact of attitudinal adaptation on academic achievement	360	3.69	1.22
Valid N (listwise)	360		

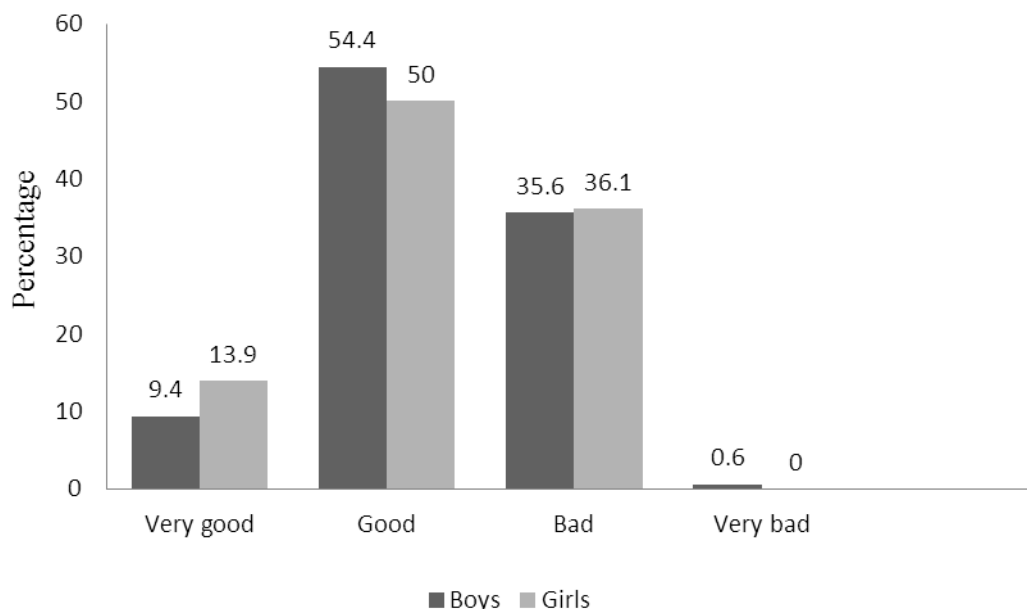


Figure 1: Students’ Attitude towards School

Findings in Figure 1 indicated that majority (54.4%) of the boys had a good attitude towards school compared to 50% of the girls. The students who had a bad attitude towards school comprised of 35.6% boys and 36.1% girls. More (13.9%) girls than boys (9.4%) exhibited a very good attitude towards school. Further, the students

indicated the impact of attitude towards school on academic achievement. The findings from boys and girls were presented in Figure 2 and Figure 3 respectively.

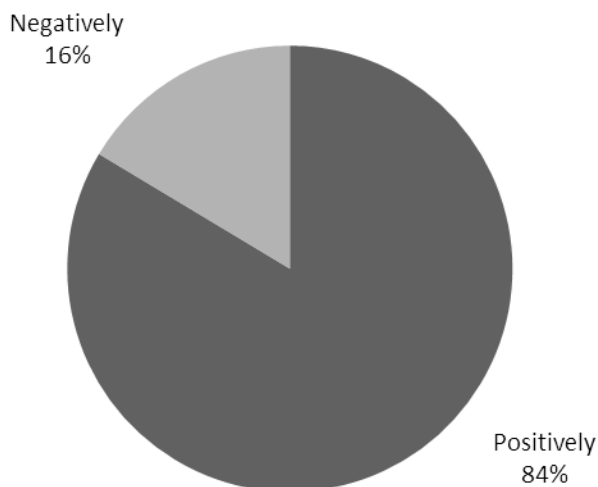


Figure 2: Boys' Views about Impact of Attitude towards School on Academic Achievement

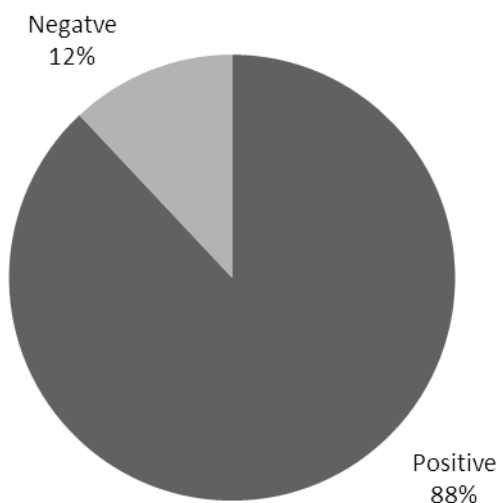


Figure 3: Girls' Views about Impact of Attitude towards School on Academic Achievement

Comparing information in Figure 2 and Figure 3, there were more (88%) girls than boys (84%) who perceived attitude towards school as having a positive impact towards academic achievement.

The school counsellors indicated their level of agreement with attitudinal adaptation factors on a 5 level likert scale rated 5=Strongly Agree, 4=Agree, 3=Undecided, 2=Disagree and 1=Strongly Disagree. A mean score below 2.5 indicated Low Impact, between 2.5 and 3.5 indicated Moderate Impact while a mean score above 3.5 indicated High Impact. The findings were presented in Table 3.

Table 2 school counselors' perception on Impact of Attitudinal Adaptation Factors on Academic Achievement

Attitudinal Adaptation Factors	N	Mean	Standard Deviation
Students acceptance of their school influences their academic achievement positively	12	4.67	.49
Students acceptance of their home environment has a positive influence on their academic achievement	12	4.25	.45
Student who feeling happy during the school opening days achieve better academically	12	4.17	.84
Students who enjoy their school life perform well academically	12	4.00	1.04
Student who appreciate their school name have a positive academic achievement	12	4.00	.85
Students who have competence to manage their level of anxiety during exam time performs well academically	12	4.33	.89
Interest in learning boosts students academic achievement	12	4.75	.45
Students who accept their school meals performs well academically	12	4.17	.94
Students who feel nice in their school uniform performs well academically	12	3.42	1.31
Students who appreciate the words of inspiration they get through school life do well academically	12	4.67	.49
Students feeling that they are in school of their choice boost their academic achievement	12	4.42	.90
Students who appreciate the location of their school performs well academically	12	3.75	1.22
Students who appreciate the choice of subject they make in school are able to achieve better academically	12	4.58	.52
Students perception of impromptu inspections done in school has no effect on their academic achievement	12	2.92	1.38
Students who appreciate the services offered through G/C department do well academically	12	4.50	.52
Students reception by others when joining a school makes them perform well academically	12	4.33	.49
Students who appreciate of their school infrastructure performs well academically	12	3.83	1.12
Students who feel that their parents are able to meet their immediate needs and pay their school fees performs well academically	12	3.75	1.36
Overall mean on impact of attitudinal adaptation on academic achievement	12	4.139	.8
Valid N (listwise)	12		

Information in Table 2 indicates an overall mean of 4.139 and a standard deviation of .8. This was a reflection of a high impact of attitudinal adaptation on academic achievement among secondary school students. Among the attitudinal adaptation factors that had moderate impact on academic achievement was students perception of impromptu inspections done in school with a mean of 2.92 and a standard deviation of 1.38. The students' interest in learning had the highest impact on academic achievement with a mean of 4.75 and a standard deviation of .45.

Detailed information was gathered from Deputy Principals by means of an interview. The respondents were required to indicate their perception of students' general attitude towards school. Most of the Deputy Principals agreed that students had a positive attitude towards school. Some aspects of school that students appreciated according to the Deputy Principals were infrastructure, teachers, entertainment, sports, class discussions, the school uniform and academic achievement. The students were reported to be particularly excited whenever there was an improvement in the Kenya Certificate of Secondary Education (KCSE) examinations. Another area that made the students happy about school was winning a game during sports competitions. Further, the deputy Principals were required to relate students' attitude towards school and academic achievement. The responses indicated a positive relationship between attitude towards school and academic achievement. The students who had positive attitude towards school were reported to be more likely to concentrate on studies and rank high academically. However, those students who did not like their school tended to spent more time on complaining, indiscipline issues and were frequently sent away from school. this translated into dismal academic achievement.

4.3 Comparison of Boys' and Girls' Attitudinal Adaptation on Academic Achievement

To compare gender differences in the impact of attitudinal adaptation on academic achievement in boarding secondary schools, t-test statistic was computed. The findings were presented in Table 3.

Table 3: Comparison of Attitudinal Adaptation of Boys and Girls on Academic Achievement

Category		N	Mean	SD	t-value	df	p-value
Attitudinal Adaptation	Boys	180	3.67	1.23	-1.064	356	0.288
	Girls	180	3.73	1.20			

Findings in Table 3 indicated the mean of boys as 3.67 and that of girls as 3.73 on the impact of attitudinal adaptation on academic achievement with standard deviations of the 1.23 and 1.2 respectively. The computed p-value (0.288) was greater than the theoretical $p < 0.05$. The obtained t-value ($t = 0.07$, $p > 0.71$) was indicative of no significant difference in the impact of interpersonal adjustment on academic achievement between boys and girls in boarding secondary schools in Meru County.

5. Discussion of the Results

The findings indicated factors like appreciating parents' ability to meet immediate needs and pay school fees, having interest in learning and appreciating choice of subjects as having a high impact on academic achievement. These findings augment the ideas of Wango and Mungai (2007) who purport that attitude in form of cognitive (knowledge, beliefs and ideas), affective (feeling, like, dislike) and behavioral (tendency towards action) domains has an impact on students' academic achievement. Bassy, Joshua and Asim (2008) argue that attitudes have a direct relationship with students' academic achievement. This means that when students have an interest in learning, then they are able to make proper choice of subjects and likely to achieve better academically. Further, Mwangi, (2009) notes that attitude strongly affects how a student perceives and responds to others. Thus, appreciating parents' ability to meet immediate needs and provide academic resources gives the learner an assurance of acceptance and stability which facilitate concentration in studies.

Boys and girls exhibited good attitude towards school which positively impacted academic achievement. These findings support the views of Mwangi (2009) that positive attitude enhances learning whereas negative attitude inhibits learning. In addition, Ulrich (2005) argues that the classroom environment in which students learn reflects the learning outcomes. For instance, if students have to succeed academically, they must be provided with adequate infrastructure like classrooms, library, laboratory facilities, proper hostels, adequate sanitation, water and lighting among others. When such facilities are provided, the attitude of students towards school is likely to improve. This is because high academic achievers who tend to efficiently utilize school facilities will find school meaningful and beneficial (Hendrikz, 2006). Therefore, students' attitude towards school has a direct bearing on academic achievement.

There were no statistically significant differences in the impact of attitudinal adaptation on academic achievement between boys and girls in boarding secondary schools. These findings differed with observations made by Jepchirchir (2009) that girls have a more positive attitude towards school and teachers than boys. However, Kiprono (2011) suggests that measures need to be put in place to ensure gender does not hinder performance among students; implying that parents and other stakeholder need to remain fair when encouraging both male and female learners about academic achievement.

6. Recommendations

Based on the findings of this study, the following recommendations were made:

- i. School administrators may need to restructure the school programs and physical appearance considering aspects such as rebranding, infrastructure, school uniform, academic activities and the general image of the school so as to enhance students' attitudinal adaptation which has a positive impact on academic achievement.
- ii. The Ministry of Education could put in place and enhance policies that ensure learner friendly school environments. This may be achieved through setting minimum standards regarding the physical size of classrooms, offices, hostels and school restaurants; nature and quality of furniture and maintenance of sports.
- iii. School counsellor need to design programs aimed at facilitating students' attitudinal adaptation which may include inspiration and motivation sessions. The teachers may also be encouraged to facilitate students' positive attitude towards various subjects.

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