

Relationship Between Perceived Competence And Academic Achievement Among Form Three Students In Kiambu County, Kenya

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Abstract: Poor academic achievement has been experienced in Kiambu County, despite government interventions and education being an important sector in individual and national development. Most researchers attribute this to socio-cultural and classroom environmental factors with little done to explain personal factors which may contribute towards students' academic achievement. The study was designed to determine the relationships among students perceived competence and academic achievement in Kiambu County. The study was guided by intelligence theory. The research adopted mixed methods sequential explanatory design. The targeted population was all year 2017 Form Three students in Kiambu County. Purposive sampling was used to select Gatundu South Sub-county. Using stratified random sampling 12 schools were selected. Through proportionate stratified sampling schools were selected. Simple random sampling was used to select 665 participants. Perceived competence scales were adopted and used to measure perceived competence. Academic achievement was inferred from students' examination grades obtained from school records. The quantitative data was analyzed using SPSS version 21. Qualitative data was analyzed thematically. Data collected was analyzed using both descriptive and inferential statistics. The two sub-scales of perceived competence were found to be negatively correlated to academic achievement. The highest relation was found between entity perceived competence $r(414) = -.192$ $p < .01$). To determine a prediction model multiple regression analysis was used. Overall, the findings support the need for alternative methods of evaluating students' competencies.

Keywords: Academic achievement; perceived competence; entity perceived competence; flexible perceived competence.

I. OBJECTIVES / HYPOTHESIS OF THE STUDY

The objective of the study was to determine the relationship between perceived competence and academic achievement.

The study was guided by the following alternative hypothesis:

H_{a1} There is a significant relationship between students' perceived competence and academic achievement

II. INTRODUCTION / BACKGROUND OF THE STUDY

Academic attainment of students may have implications on the nation's future overall global competitiveness. As noted by Organization for Economic Cooperation and Development (OECD, 2007), deficiencies among poor performing students impact negatively for individual labour market, capacity to participate in society and earning prospects. According to the Ministry of Education (MOE) (2012), education is a primary

vehicle for socio-economic growth and national integration. Through education a country's goals and aspirations are realized. Also, individuals, society and the world at large are influenced and transformed.

Within the realm of educational psychology literature perceived competence has been a central tenet of student motivation influencing the positive or negative possibilities (Betoret & Artiga, 2011; Paykachat, Paul & Ragaland, 2013; Sungur & Senler, 2010; Yoon, Weinstein, & Winker, 2011). It refers to belief in one's capabilities as a general motivating factor which produces achievement outcomes (Elliot & Church, 1997; Elliot & Thrash, 2001). It may also represent individual confidence that one is able or unable to accomplish an academic task. In achievement relevant settings, it directs or energizes behaviour and moderates an individual goal adoption. Studies posit that it can predict academic achievement and facilitates an active commitment to competence.

Social cognitive framework (Dweck, 1986) shows how maladaptive and adaptive behavioural and cognitive outcomes are related to individual differential levels of competence. In line with empirical research, low perception of ability coupled with performance goal may result into maladaptive behaviours. Further research has found a link between perceived ability (entity, flexible) and achievement goal (performance, mastery) with adaptive behaviours (Cury, Elliot, Da Fonseca, & Moller, 2006). Researchers have demonstrated that students with flexible perceived competence experience positive emotions during task engagement. They maximize on the positive and minimize on negative possibilities while those with entity perceived competence experience less resilience and persistence after failure (Law, et al., 2012).

Academic underachievement is currently a serious problem in Kenya. Data from the Ministry of Education shows that Counties in Central Region had highest Net Enrolment Rate for secondary education and a half (50%) in Kiambu County compared to national average of 24.2% (M O E, 2012). In Kenya Certificate of Secondary Examination (KCSE) 2015 - 2017 Kiambu County's performance by mean score showed that majority of the secondary schools are between 4.4 - 2.5 categories respectively, out of the maximum 12 points. In KCSE 2015, 2016 and 2017, Gatundu South Sub-County by mean score attained 4.47, 3.78 and 3.32 respectively: approximately 80 % failure rate. The Sub-County's mean score was below the County and national averages.

Studies in Kenya regarding the factors that influence students' academic achievement have focused on academic disidentification, academic identity status and academic resilience (Ireru, 2015; Mwangi, 2015; Otanga, 2016). Therefore, the central problem of this study was to find out the relationship between perceived competence and academic achievement among Form Three students in Kiambu County, Kenya.

SIGNIFICANCE OF THE STUDY

The study findings are expected to contribute to the existing cross-cultural literature on students' academic

achievement among students in Kenya. The findings could also provide relevant information to policy makers and curriculum developers to design appropriate instructional materials, educational objectives and programmes.

III. THEORETICAL FRAMEWORK

Intelligence Theory by Dweck (1999) was reviewed.

INTELLIGENCE THEORY (DWECK, 1999)

The model is derived from social- cognitive framework and refers to the way individuals orient, generate and conceptualize themselves towards different goals. Dweck (1999) suggested that perceived competence of a student could be influenced by the personal theory of intelligence. In 1988, Dweck and Leggett conceptualized perceived competence as individual view on intelligence or ability based on either flexible or entity. When students believe that intelligence is malleable and, with effort, increases, they adopt an incremental view. But if they believe that, intelligence is fixed and unchangeable trait, they adopt an entity view. The main implication of the model to the current study is that individual view of intelligence activates positive or negative processes and kind of goal adopted in achievement situations. Research in the area of academic achievement has found a link between incremental students' embracing learning tasks that are hard and with possibility of not meeting desirable outcomes. Entity students embrace tasks that do not portend their competence picture, assured of success and less risk of failure (Dweck, 1999; Wawire, 2010).

IV. REVIEW OF RELATED LITERATURE

PERCEIVED COMPETENCE AND ACADEMIC ACHIEVEMENT

Majority of the existing educational studies on the relationship between perceived competence and academic achievement have been conducted among elementary and college students. In a survey using 157 Spanish undergraduate students, Betoret and Artiga (2011) examined the relationship between learning approaches, psychological competence, avoidance strategies and academic performance. Data was collected using Self-report questionnaires. The structural equation modelling examined interrelationships of the construct. Research results indicated that, correlations among approaches to learning and avoidance strategies and student academic achievement were significant. However, the variables could act as mediators between student psychological needs and academic achievement. The researchers took into account other variables related to student motivation such as achievement goal orientation and perceived competence as recommended by Phan (2009). Similarly, the current study used self-report questionnaire which could allow for generalization of results.

A study at University of Arkansas for Medical Sciences, Paykachat, Paul, and Ragaland (2013) identified correlates of

academic help seeking behaviour among pharmacy students at a public university. The researchers used semi-structured focus group interviews to collect data from the participants. The study was guided by five objectives. One of them explored the relationship between perceived academic competence and academic help-seeking behaviour. Empirical findings reported a statistically positive correlation between perceived academic competence and academic help-seeking behaviour. However, the study had some limitations, like utilizing only one public college for pharmacy. This limited generalization of the study findings in the case of students in different professions, institutions and settings. The current research target population was 2017 form three students in all secondary schools.

An earlier study by Yoon, Weinstein, and Wicker (2011) had investigated the relationship between perceived autonomy, perceived competence, achievement goal orientations and academic outcomes. The participants of the study were 151 statistics students in university in Southwest United States. Perceived competence was measured using Patterns of Adaptive Learning Scales. Simple correlations and Analysis of Variance (ANOVA) was used for data analysis. The study yielded divergent findings from previous studies. Results of three-way interaction effect analyses showed that, perceived competence related significantly and positively with academic achievement. In contrast, low perceived competence indicated positive correlations and negative correlations for mastery goals with academic achievement. Scholastic Competence Scale of Harter's Self-Perception Profile for adolescents (Harter, 1985, 2012) were adopted for the current study. The same data analysis techniques were used. This helped investigate cross-cultural similarities or differences if any.

In a study of 19 participants with learning disorders from colleges in Oregon, Blake (2015) found out no relationship between implicit theory of intelligence and college student academic achievement, though a small negative relationship with high school student academic achievement was reported. Similar findings were reported by McGregor (2004) who examined the relationship between self-perception and academic achievement among native students in Grades Five and Six in Ontario, Canada, using a sample of 45 students. Data was collected using self-perception profile for children (Harter, 1985). The result indicated small significant correlation for academic achievement and scholastic competence ($r = .341, p < .05$). However, results revealed no significant relationship between academic achievement and general self-perception among native students in the 5th - 6th Grades.

A longitudinal study by Shen (2003) analyzed the effects of self-perception on students' Mathematics and Science achievement based on Third International Mathematics and Science Study (TIMSS) data in Boston. A two stage stratified cluster sample design was used to sample the schools and 3500 8th Grades student participants. The students' achievement score in the two subjects was used as the outcome variable. The findings revealed some variance at two different levels. Within country data a positive correlation was reported while at country level a negative correlation was revealed between self-perception and academic achievement. This inconsistency mirrored differences in culture. Hence,

more empirical studies were needed, with a sample from a developing country like Kenya, to establish cross-cultural similarities or differences.

P'Pool (2012) used Dweck's theory of motivation to determine the link between students' view of intelligence and their academic achievement. A sample of 118 public high school students in South Central Region, United States revealed no significant differences between entity beliefs and incremental (flexible) beliefs and students' GPA score. Empirical study by Lucangeli and Scruggs (2003) examined the relationship among perceived competence, anxiety and achievement. The study was done in a sample of 180 Italian middle school students. The students responded to the six subscales of a perceived competence scale. The research found a moderate negative correlation between perceived competence for academic ability in Maths and literature achievement. However, males and females did not differ on academic measures including perceived competence and academic achievement.

Based on the Dwecks' social cognitive theory, Li, Zhou, Zhang, Xiong, Nie and Fang (2017) examined the effects of students' theories of intelligence and exam achievement. In their study, participants consisted of 4036 students from public high schools in Panyu District of Quanzhou, Southern China. The study revealed a strong association between students with flexible beliefs but not for those with an entity belief with achievement and cognitive engagement.

V. METHODOLOGY

Mixed method sequential explanatory research design was used. This researcher collected data in two consecutive phases within the study. The quantitative data was collected first and analyzed followed by qualitative data collection and related to the outcomes from the quantitative phase (Creswell, 2014). The design was suitable to this current study in which the researcher wanted to explain interesting quantitative findings.

LOCALE OF THE STUDY

This study was carried out in Gatundu South Sub-County, Kiambu County. Kiambu County is situated in the former Central Province of Kenya and covers an area of 2,449.2km². It borders Nairobi County to the North, Kajiado County to the South, Muranga County to the West and Machakos County to the East. Administratively, the County is divided into twelve Sub-Counties namely: Githunguri, Kiambaa, Kabete, Limuru, Lari, Gatundu North, Gatundu South, Ruiru, Kikuyu, Juja, Thika and Kiambu. The accessible population was 3136 (1695 boys and 1441 girls) students from Gatundu South Sub-County.

RESEARCH INSTRUMENTS

This researcher used a self-administered questionnaire, academic achievement table to collect quantitative data.

QUESTIONNAIRE

The study had one questionnaire for the students used to collect demographic information and perceived competence. The questionnaire was divided into two main sections. Section A comprised of three items on respondents gender, type of school and residential status. Section B consisted items measuring participants' perceived competence using the perceived competence scale.

a. PERCEIVED COMPETENCE SCALE

Items to measure perceived competence were adopted from Scholastic Competence Scale of Harter's Self-Perception Profile for Adolescents (Harter, 1985, 2012) and implicit theories of intelligence scale (Dweck, 1999). The original scale structure had 10 items measuring learners' perceived cognitive competence as applied to school work and 6 items measuring two specific domains about the extent to which scholastic intelligence was fixed or malleable. In this study, the negatively worded and fixed beliefs items were collapsed and renamed entity perceived competence and positively worded and malleable items were worded and renamed flexible perceived competence.

b. ACADEMIC ACHIEVEMENT TABLE

Academic Achievement Table was used to record the scores obtained from the school records. To make the scores comparable among participants from different schools, they were transformed into standardized scores. The researcher categorized the scores into high, average and low levels of academic achievement.

c. INTERVIEW SCHEDULE

Semi structured interviews were conducted in the phase two of the study. The purpose of the interviews was to explore further respondents quantitative responses. The semi-structured interviews were preferred because they were flexible to the student participants (Matthews & Ross, 2010).

VI. DATA COLLECTION

The researcher sought informed consent from the participants of the study prior to data collection by filling in a consent form. The research instruments were delivered to the schools and administered by the researcher with the assistance of class teachers. The researcher gave instructions and demonstrated how to respond to the questionnaire items. Participants took an average of 15 minutes. The filled-in questionnaires were collected immediately.

In the second phase of the study participants were assured of confidentiality by use of pseudonyms. The researcher briefed the selected participants regarding the significance of the interviews. Their consent for recording the interviews was sought for and they were assured that the contents of recorded data would be reviewed and transcribed by the researcher only within the strict framework of the study.

VII. DATA ANALYSIS

QUANTITATIVE DATA

The quantitative data obtained was coded for statistical analysis using the Statistical Package for Social Sciences (SPSS), Version 21. The study employed descriptive and inferential statistics to analyse data. The descriptive statistical procedures were used to report demographic features of the students and inferential statistical procedures were used to test each hypothesis at a = .05 level of significance. The following null hypotheses and statistical tests guided the data analysis:

H₀₁: There is no significant relationship between students' perceived competence and academic achievement. Statistical test: Pearson's product moment correlation co-efficient.

QUALITATIVE DATA

According to Neuman (2011) qualitative data analysis involves deconstruction of the qualitative data into manageable categories, themes and relationships in line with the study objectives, theory and reviewed literature. The following procedures were followed:

- ✓ Verbatim transcription of the recorded interviews commenced immediately. This involved transcription of main points of 40 respondents, comments and short notes (Creswell, 2014). The transcribed texts were thoroughly analysed in order to detect any duplications or similar categories within the feedback from the respondents.
- ✓ Coding was done and transcribed texts were arranged into primary themes and sub- themes. According to Neuman (2011, as cited in Vosloo, 2014) codes were "names or labels assigned to specific units or segments of related meaning identified within field notes and transcript" (p.364).
- ✓ The codes were evaluated according to research objectives, theoretical framework and the reviewed literature.
- ✓ The respondents' descriptions of thematic relationships and patterns identified concluded the qualitative analysis. In the process, the raw data was connected to the quantitative data phase.

VIII. FINDINGS

GENERAL AND DEMOGRAPHIC INFORMATION

GENERAL INFORMATION

A total of 665 questionnaires were issued to the respondents, out of which 645 were returned, translating into 96.99 % return rate. Of those returned, 14 questionnaires accounting for 2.17% were discredited during the data gleaning. This was because 8 of the participants had given multiple responses, 3 had ticked one common response in the questionnaire, and 3 had no responses and lacked the academic achievement score. The actual number of the questionnaires used for analysis was thus 631. This accounted

for 94.58% of the participants, representing 362 (53.38%) boys, 267 (41.20%) girls and 2 'no response'.

DEMOGRAPHIC DATA OF THE PARTICIPANTS

This sub-section presents the demographic information an gender and age. The summary of the results is presented in the following Table 1:

Age	Male (%)	Females (%)	M	SD	Sk	Kur
NR	3 (0.8)	3 (1.1)	16.83 ^a	1.753	-7.306	68.94
15years	9 (2.5)	15 (5.6)				
16 years	90 (24.9)	95 (35.6)	16.49 ^b	1.951	-6.775	56.02
17 years	176 (48.6)	122 (45.7)				
18 years	73 (20.2)	23 (8.6)				
19 years	9 (2.5)	9 (3.4)				
20 years	2 (0.6)	0 (0.0)				
Total	362(100.0)			267(100.0)		

Note.^a=Mean score for males; ^b=mean score for females; Sk=Skewness; Kur=Kurtosis; M =Mean; SD= Standard Deviation; NR= No Response

Table 1: Distribution of Respondents Age by Gender

As presented in Table1, the participants' ages ranged between 15- 20 years. The majority of percentage of male students 176(48.6) was aged 17 years with their age categories as follows: 15(2.5); 16 (24.9); 17(48.6); 18(20.2); 19(2.5); 20(0.6) and 'no response' were 3(0.8). Similarly, majority of percentage of females 122(45.7) was aged 17 years with their age distribution as follows: 15 (5.6); 16 (35.6); 17; (45.7); 18(8.6); 19(3.4) and 'no response' were 3(1.1). The mean age for boys was approximately 17 years, while the mean age for the girls was 16 and half years. The skewness and kurtosis values for both boys (Sk=-7.306, Kur=68.94) and girls (Sk=-6.775, Kur=56.02) was above three indicating that the students' ages were not normally distributed.

RELATIONSHIP BETWEEN STUDENTS' PERCEIVED COMPETENCE AND ACADEMIC ACHIEVEMENT

The study sought to establish the relationship between perceived competence and academic achievement. The scale had 16 items measured on a 5-point rating scale (1 =strongly agree to 5 = strongly disagree).The mean scores obtained from the Form Three mid-term and end of Term One exam 2017 were used to represent the academic achievement levels.

DESCRIPTIVE ANALYSIS OF RESPONDENTS PERCEIVED COMPETENCE

The minimum possible score was 16(1x16) and the maximum possible score was 80(16x5). Scores between 16 to 48 represented entity perceived competence, while scores between 49 to 80 represented flexible perceived competence. The descriptive analysis is as shown in Table 2.

Sub Scale	N	Min	Max	M	SD	Sk	Kur
EPC	217	30	48	44.83	2.937	-1.451	3.120
FPC	414	49	67	54.35	3.896	0.696	0.049

Note. Min = Minimum; Max = Maximum; M = Mean; SD = Standard Deviation; Sk = Skewness; Kur=Kurtosis; EPC=Entity Perceived Competence; FPC=Flexible Perceived Competence

Table 2: Descriptive Statistics for Perceived Competence Sub Scale

The data in Table 2 shows that the minimum and maximum scores were 30 and 67. This was against the minimum possible score in the perceived competence scale which was 16 and 80 respectively. The minimum score attained for flexible perceived competence was 49 and the maximum score was 67, while the minimum score attained for entity perceived competence was 30 and the maximum score was 48. The mean flexible perceived competence and entity perceived competence were 54.35 (SD= 3.896) and 44.83 (SD= 2.937) respectively. The obtained scores for entity perceived competence were negatively skewed indicating that the respondents rated themselves highly on scale, while those for flexible perceived competence were positively skewed indicating that they rated themselves lowly on that scale. The kurtosis scores on the entity perceived competence was 3.120, indicating that the scores were not normally distributed, while the scores for the flexible perceived competence were normally distributed as indicated by the kurtosis score of 0.049.

HYPOTHESIS TESTING

To determine the relationship between perceived competence and academic achievement, the following hypothesis was developed:

H₀₂: There is no significant relationship between students' perceived competence and academic achievement. Statistical test: Pearson's Product Moment Correlation Co-efficient.

To further test the null hypothesis, the following two supplementary hypotheses were formulated:

H_{02.1}: There is no significant relationship between students' flexible perceived competence and academic achievement.

H_{02.2}: There is no significant relationship between students' entity perceived competence and academic achievement.

To test this hypothesis, a bivariate correlation analysis was conducted using Pearson Product Moment Correlation Coefficient. The findings are shown in Figure 1:

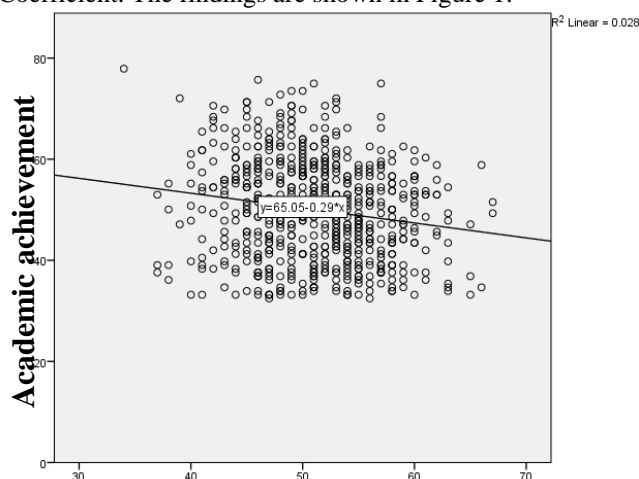


Figure 1: Scatter Plot On The Relationship Between Perceived Competence And Academic Achievement

As shown in the Scatter Plot in Figure 1, there was evidence of a negative linear relationship between perceived competence and academic achievement, a relationship that

was weak ($R^2=2.8\%$). Higher scores of perceived competence correlated with lower scores of academic achievement. It was therefore concluded that a Pearson Product Moment Coefficient Correlation (r) could be run and its significance tested. Table 3 shows the result between perceived competence and academic achievement.

			Academic achievement
Pearson correlation	EPC	Correlation Coefficient	-.036
		Sig. (2-tailed)	.600
		N	217
FPC	FPC	Correlation Coefficient	-.192**
		Sig. (2-tailed)	.000
		N	414

Note. EPC=Entity Perceived Competence;

FPC=Flexible Perceived Competence

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

Table 3: Correlation Between Perceived Competence And Academic Achievement

As shown in Table 3, there was a statistically significant weak negative relationship between flexible perceived competence and academic achievement, $r(414) = -.192, p < 0.01$. This implied that increase in flexible perceived competence was associated with a decrease in academic achievement. However, there was a weak negative relationship between entity perceived competence and academic achievement, $r(217) = -.036, p > 0.05$, a relationship that was not statistically significant. From the findings, the first alternative null hypotheses could thus be rejected and the alternate hypotheses accepted. But the second null hypothesis was accepted.

IX. DISCUSSION OF THE RESULTS

The objective of the study was to find out the relationship between perceived competence and academic achievement. A negative and significant relationship was found between the two as Table 3 shows. This finding meant that the two domains of perceived competence had a correspondingly low academic achievement.

This was consistent with Blake (2015) who found out a negative relationship between the learner perception of intelligence and academic achievement. This also supported a study by Shen (2003) who analyzed the effects of self-perception on students' Mathematics and Science achievement within Boston 8th grade students. The results revealed a negative correlation between self-perception and academic achievement. They were also in line with those arrived at by Lucangeli and Scrogg (2003) in a sample of 180 Italian middle school students in which that the six subscales of perceived competence negatively correlated with academic achievement. The study was collaborated by McGregor (2004) and Li et al. (2017) who found a significant correlation between academic achievement and perceived competence.

However, the findings are contrary to those of Paykachat et al. (2011) who explored the relationship between perceived academic competence and academic help seeking behaviour. The results were also inconsistent with those reported in the

study by Yoon, et al. (2011) among statistics University students in South West United States. A three way interaction effect showed that perceived competence related positively with academic achievement.

Overall, this perspective draws from social-cognitive framework that student approaches to feedback play a key role in the cognitive processes which follow performance in the situation of success or failure (Dweck, 1999). When environmental structures focus on social comparison, normative feedback or ability of learners are more likely to make viable attributions for performance. When faced with failure in school, students may attribute outcomes to low ability resulting into their developing self-serving biases in academic domain in which success and failure become irrelevant (Otanga, 2016).

QUALITATIVE DATA ANALYSIS

The qualitative data were used to categorize the respondents into perceived competence in Table 4.

Perceived Competence	Boy	Girl	Total
Flexible perceived competence	8(20%)	9(22.5%)	17(42.5%)
Entity perceived competence	12(30%)	11(27.5%)	23(57.5%)
Total	20(50%)	20(50%)	40(100%)

Table 4: Qualitative Categorization Of Respondents Perceived Competence

To categorize the participants' perceived competence, their choices of description of perceived competence were analyzed as presented in Table 4. Majority (57.5%) of the respondents in the qualitative study were categorized as having entity perceived competence. This contrasted with the quantitative findings where the majority of participants were in flexible perceived competence. But, more girls were categorized as flexible perceived competence while boys showed more entity perceived competence than girls.

The key emergent themes and sub -themes which arose from interviewees responses were analysed and discussed in relation to perceived competence. Overall, majority of the students' chose subjects because of their bearing on their individual future careers and achievement. However, some of the respondents' chose subjects because they believed that these were easy to grasp and perhaps requires less attention to warrant fear of failure.

However, most of respondents indicated that they were guided either by respective Dean of Studies, parents or motivational speakers in subject selections. But nearly half of the respondents seemed to imply that they were never guided. This demonstrated the influences of significant others as sources of students' academic goals and perceptions. Notably, majority of respondents discussed subject choices with their parents. This implied that parents apparently exerted some degree of influence on adolescents' perceptions of competence with regard to difficulty and importance of achievement tasks.

X. CONCLUSION

The results indicated that both flexible and entity perceived competence had a negative aspect in predicting

academic achievement. This may seem to indicate that perceived competence cannot be treated as separate entity but as a mutually dependent factor. Therefore, to improve achievement performance, educators should enhance secondary students' sense of competence when offering psycho-educational help along other personal factors. Moreover, the two types of perceived competence yielded negatively to the model since they seem to utilize scholastic self theory items. It could, therefore, be proposed that adolescents' perceived competence should have multidimensional approach by including other domains such as social, athletics, physical, behavioural conduct, close quality friendships, global self-worth as suggested by Harter, (2012).

XI. RECOMMENDATIONS

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

POLICY RECOMMENDATION

The Kenya Institute of Curriculum Development, together with Ministry of Education, should work towards developing alternative methods of evaluating learners' competencies. This is because the domains in which learners' could base their perceived competence are diverse and not solely on scholastic aspects.

RECOMMENDATIONS FOR FURTHER RESEARCH

Further research would benefit from considering a multidimensional model which includes other constructs based on intelligence theory framework. This is because each construct could have different patterns of relationships. Also some students may not base their abilities solely in the academic domain.

The student sample in this study was not fully representative of all schools. There is, therefore, need to study the influence of motivation among ranges of students sampled from primary and post-secondary levels of education. Such an approach could address regional differences in Kenyan students' perceived competence.

REFERENCES

- [1] Bestoret, F., & Artiga, A. (2011). The relationship among student psychological need satisfaction approaches to learning, reporting of avoidance strategies and achievement. *Electronic Journal of Research in Educational Psychology*, 9(2), 169-209.
- [2] Blake, A. (2015). Perceptions of intelligence and academic achievement among undergraduate students with learning disorders. Retrieved from <http://digitalcommons.georgefox.edu/psyd/170>
- [3] County Director of Education. (2016). Kiambu County 2016 KCSE analysis.MOE, Kiambu.
- [4] County Director of Education. (2017).Kiambu County 2017 KCSE analysis overall merit list. MOE, Kiambu.
- [5] Creswell, J. W. (2014). *Research Design* (4th ed.). Los Angeles, LA: Sage.
- [6] Cury, F., Elliot, A. J., Da Fonseca, D., & Moller, C. (2006).The social-cognitive model of achievement motivation and the 2 x 2 achievement goal framework. *Journal of Personality and Social Psychology*, 90, 666-679.
- [7] Dweck, C. S. (1986). Motivational processes affecting learning. *Journal of American Psychologist*, 41(10), 1040-1048.
- [8] Dweck, C. S. (1999).*Self-theories: Their role in motivation, personality, and development*. Philadelphia, NJ: Psychology Press.
- [9] Elliot, A. J., & Church, M. A. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology*, 72, 218–232.
- [10] Elliot, A. J., & Thrash, T. M. (2001).Achievement goals and the hierarchical model of achievement motivation. *Educational Psychology Review*, 12, 139–156.
- [11] Harter, S. (1985).*Manual for the Self-perception profile for children*: Denver, NY: University of Denver.
- [12] Harter, S. (2012). *Self-perception profile for adolescents: Manual and questionnaire*. NY: Guilford press.
- [13] Ileri, A. (2015). *Academic Identity Status and achievement goal orientation as predictors of academic achievement among form three students in Embu County, Kenya*. Unpublished doctoral dissertation, Kenyatta University, Nairobi, Kenya.
- [14] Law, W., Elliot, A.J., & Murayama, K.. (2012). Perceived competence moderates the relation between performance-approach and performance-avoidance goals. *Journal of Educational Psychology*, (3), 806–819.
- [15] Li, P., Zhou, N., Zhang, Y., Xiong, Q., Nie, R. & Fang, X. (2017). Incremental theory of intelligence moderated the relationship between prior achievement and school engagement in Chinese high school students. *Frontier Psychology*,8, 1703-1712. doi: 10.3389/fpsyg.2017.01703
- [16] Lucangeli, D., & Scruggs, E. (2003). Text anxiety, perceived competence and academic achievement in secondary school students. *Journal in Learning and Behavioral Disabilities*, 16, 223-230.
- [17] Matthews, B., & Ross, L. (2010). *Research methods: A practical guide for the social sciences*. Harlow: Longman.
- [18] McGregor, C. (2004). The relationship between self-perception and academic achievement among native students in grade five and grade six. Unpublished Master dissertation, Windsor University, Ontario, Canada.
- [19] Ministry of Education (MOE). (2012). *Policy framework for education and training: Reforming Education and Training in Kenya*.
- [20] Mwangi, C. (2015). *Predictors of academic resilience and its relationship to academic achievement among secondary school students in Kiambu county, Kenya*. Unpublished doctoral dissertation, Kenyatta University, Nairobi, Kenya.

- [21] Neuman, L.W. (2014). *Social research methods: Qualitative and Quantitative Approaches* (7th ed.). Upper Saddle River, NJ: Pearson Education
- [22] Organization for Economic Cooperation and Development (OECD). (2007). *PISA 2006 science competencies for tomorrow's world*. Paris, France: OECD.
- [23] Otanga, H. (2016). *Predictors of academic disidentification among form three secondary school students in Mombasa County, Kenya*. Unpublished doctoral dissertation, Kenyatta University, Nairobi, Kenya.
- [24] Paykachat, N., Paul, O., & Ragaland, D. (2013). Academic help-seeking behavior among students pharmacists. *American Journal of Pharmaceutical Education*, 77(7), 1-11.
- [25] Phan, P. (2009). Amalgamation of future time orientation, epistemological beliefs, achievement goals and study strategies: Empirical evidence established. *British Journal of Educational Psychology*, 79, 155-173.
- [26] P'Pool, K. (2012). Using Dweck's theory of motivation to determine how a student's view of intelligence affects their overall academic achievement. Retrieved from: <http://digitalcommons.wku.edu/theses/1214>
- [27] Shen, C. (2003). The effects of self-perception on students' mathematics and science achievement in 38 countries based on TIMSS 1999 data. Boston. The International Study Center, Boston College.
- [28] Sungur, S., & Senler, B. (2010). Students' achievement goals in relation to academic motivation, competence expectancy, and classroom environment perceptions, educational research and evaluation. *An International Journal on Theory and Practice*, 16(4), 303-324.
- [29] Vosloo, J.J. (2014). *Sport management programme for educator training in accordance with diverse needs of South African schools*. Unpublished Electronic Theses and Dissertation, <http://hdl.handle.net/10394/12269>
- [30] Wawire, C. (2010). *Predictors and consequences of self-handicapping and defensive pessimism among students in selected high schools in Nairobi Province*. Unpublished doctoral dissertation, Kenyatta University, Nairobi, Kenya.
- [31] Yoon, J., Weinstein, C., & Wicker, F. (2011). Perceived competence and autonomy as moderators of the effects of achievement goal orientations, *Educational Psychology: An International Journal of Experimental Educational Psychology*, 31(4), 393-411.