



Students Self-Efficacies Influence on the Attainment of KCSE Targets in Public Secondary School in Trans-Nzoia County, Kenya

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Abstract: *The attainment of students set academic targets is an indicator of success in any academic institution. However, students' academic targets are rarely achieved. The objective of this study was to evaluate the extent to which students' self-efficacy influences the attainment of targets at KCSE. The study was anchored on education production theory, complemented with correlation research design. The study targeted 101 public secondary schools, from which a sample of 21 Mixed Day, 4 Boys boarding, 5 Girls boarding school and 5 mixed day and boarding was derived. Stratified, random sampling method was used to sample schools while purposeful sampling was used to select the principals, directors of studies, form-three class prefects and Parents Association chairpersons as respondents. Structured questionnaires, interview schedules and document analysis were employed in data collection. Descriptive statistics aided in presenting qualitative data while pared sample t-test, ANOVA and Chi-square were used to test hypotheses. Results revealed, there is a positive statistical significant correlation between students' self-efficacy and academic targets. The study provides insights to stakeholders on school-based students' self-efficacy factors influencing the attainment of students' targets at KCSE. The adoption of students mentorship and performance recognition programmes are recommended for the attainment of set targets.*

Keywords: *Students, Self-efficacy, Influence, Attainment, Targets.*

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1. Introduction

The study focuses on concerns raised as regards to students' achievement at high school level, the input of self-efficacy with the aim of influencing the attainment of set academic targets. Education ingredients that inculcate the essential skills, abilities and knowledge among the individuals, as well as desired goals, are critical factors in

a school setting (Kapur, 2018). One such ambition in both students and institutions is the attainment of targets. Target setting has been adopted as a vehicle for driving the change process to the desired end.

A target is a numeric description of a work agency and the results of that work (Willet, 2009). There are two major categories of assessment levels in learning institutions are; Formative and Summative levels. Targets could be set to

reflect aspirations at the formative or summative level of assessment. Formative targets form the basis of what students aim at accomplishing in a projected short period of time. On the other hand, summative targets are judgmental in nature since they focus on the learners' final grade/outcome on the base of numerical feedback (Iqbal, Suleiman & Irshadullah, 2017).

Although there is considerable evidence to support the existence of a relationship between students' self-efficacy and student achievement, information regarding the extent to which students' self-drive influences the attainment of set academic targets, at KCSE is scanty. Failure to attain set academic targets often results in unacceptable levels of attrition, reduced graduates throughout, which in turn increases the cost of education as indicated by Jayanthi (2014), Al-Zoubi (2015), and Rono, Onderi & Owino, (2014).

The concept of self-efficacy was originally proposed by Bandura in his social cognitive theory. Self-efficacy could be defined as a belief in an individual's ability to succeed in a specific situation (Bandura, 2012). It comprises an individuals' evaluation of their own ability to achieve a goal. It could be influenced by many factors including: gender, age and domain (Huang, 2012). Hodgers (2008) summarizes by observing that self-efficacy is influenced by four main sources: enactive experience-that is hands-on experience; vicarious experience- that is other peoples experience; verbal persuasion -that is appraisal or feedback from others; and physiological and affective states-that is, stress emotion, mood, pain and fatigue.

The American government had always emphasized the need for students to self-drive as a remedy to achieving desired goals. Laura (2016) noted that student's self-assessment was an important input towards the targets. Arising from the need for students to self-drive, the Open University in United States of America, embarked on setting targets as a strategy of raising standards in schools through placing student achievement at the core of planning.

Studies on the relationship between students' self-efficacies and academic performance have been carried out in Europe and Asia as indicated by Punjar and Enny (2017); Platania, Ramaci & Magnano (2014). In the African context and specifically in Nigeria, Akomolafe, Ogunmakin & Fasooto (2013) established that academic self-efficacy significantly predicted student performance in general. In South Africa, Juan (2018) noted the existence of a relationship between self-efficacy and science achievement.

Researchers have in the recent past made attempts to establish the influence of school factors on the attainment of students' achievement in Kenya. The works of Abiri

(2013); Simiyu and Akaranga (2016); & Barasa (2015) carried out in Trans Nzoia County revealed that various school-based factors had an influence on student general performance. However, their findings confined to general school that predicts students' performance and not specifically students' academic targets at KCSE. This revelation had prompted stakeholders to raise concerns regarding the non-attainment of students' academic targets at KCSE. It's worth noting that target setting technique had been popularly employed to improve students' cognitive learning processes in schools. Krlen, Suter & Hirt, (2019) observed that attainment of academic targets was believed to have great impact on a student's self-drive, motivation, and endurance in higher education. The trend was disturbing, bearing in mind the fact that parents and other stakeholders in Trans-Nzoia County had invested enormously to support the Government efforts in ensuring the attainment of quality education at the end of the four-year period.

Non-attainment of set targets at KCSE diminished students' opportunities to pursue their dream careers, besides reducing their chances of meaningful indulgence in national development. It also created feelings of unworthiness and frustration (Ray, 2014). In spite of all the issues associated with non-attainment of students' academic targets, research on the extent to which students' self-efficacy influenced the attainment of academic targets at KCSE was imperative.

1.1 Statement of the problem

Educational stakeholders have continuously made efforts in employing various strategies that are aimed at achieving high student performance. However, public secondary schools continue to register dismal performance, far below the set students' academic performance targets. Information maintained at Trans Nzoia County Directors Education confirms that public secondary schools have failed to attain the set targets in the last five years (2014 to 2018), exhibiting an average negative deviation. Scanty research evidence points to the fact that aspects of students' self-efficacy aspects such; forethought, self-discipline, attention focusing, and self-reflection among other variables could be associated with the non-attainment of students set targets.

That situation raises the critical question, whether and to what extent students' self-efficacies factors influence the attainment of set students' academic performance targets at KCSE. Stakeholders have continued to engage in a blame game and if this situation persists, it will create a limbo. Therefore, establishing the extent to which students' self-efficacies correlate with the attainment of students' set targets justified the need for undertaking the current study, in public secondary schools in Trans Nzoia County.

1.2 Significance of the study

It is hoped that the findings of the study provides valuable information to the government, school administrators, teachers and students on how best to address the students' self-efficacy factors associated with the non-attainment of students set academic targets. At the school level, the study will provide insights to headteachers, teachers and the Board of Management on the students' self-efficacy factors influencing the attainment of targets at KCSE. The findings will also help guide the principals in addressing the issues of non-attainment of targets in public secondary schools in Trans Nzoia -County and in creating an awareness of the imperative students' self-efficacy igniters of realizing set targets in public secondary schools in Kenya

1.3 Theoretical Framework

The study adopted the theory of Education Production Function (EPF) whose main proponents are Dewey, Husted and Kenny (1998). The theory presumes that there is exchangeability of inputs to produce similar output. Education outcomes or results are perceived to be a function of various inputs that are employed in the education process. In the current study, the inputs were students' self-efficacy (forethought, attention focusing, self-discipline and self-reflection) whereas the output was the attainment of students set academic targets at KCSE.

The researcher conceptualized that the manipulation of students' self-efficacy factors could influence the attainment of students set academic targets at KCSE. Students' self-efficacy is the independent variable while the dependent variable was the attainment of students' set academic targets at KCSE.

2. Literature Review

Self-efficacy was seen as one's belief in one's ability to excel in specific circumstances or accomplish an assignment. It was the understanding that human beings have in their own capacities, specifically the ability to realize the challenges ahead of them and complete assignments successfully (Akhtar, 2008).

Students' forethought was a key aspect associated with self-efficacy. Forethought which is defined as prior planning entails proactive control, which occurs before the performance level. It applies to students with goals, besides providing a roadmap to success (Gates, 2010). Zimmerman (2008) opined that students who pay attention, master their tasks which in turn enables them to accelerate their self-efficacy. Such students also self-regulate as they engage in high levels of prior thinking

(Zimmerman, 2008). The process of fore thinking involves self-regulation beliefs, and prepares learners to internalize knowledge (Ramdass & Zimmerman, 2009).

Colley (2012) viewed forethought as an important key pedagogical strategy that impacted on student performance. Forethought enabled students to develop and concentrate on their goals.

However, Iraki (2009) pointed out that most students in public schools entered learning institutions with no particular academic goal, no plan for future and therefore they resorted to non-academic activities. These undesired behavioral traits contributed to dismal performance because such students were bound to waste time. Teachers were expected to intervene by way of persuading them to remain motivated. Teachers were also expected to provide students with autonomy support, structure and involvement. Whenever this was done, it raised students' self-efficacy and confidence in their ability to succeed in academic tasks (Ayllon, Alsina & Colomer, 2019).

Another interrelated aspect of self-efficacy was attention focusing. This is the ability to concentrate on a target stimulus for a period of time without interference from other destructors. The act of concentrating on a specific target made it clear and well understood. Grant (2012) indicated that focusing on set goals, not just any goals, but goals set squarely on student performance promoted educational performance and in turn, positively influenced the attainment of students' academic performance goals. This line of argument was supported by Cheng (2011), and Day & Tosey, (2011). They postulated that focusing on setting their own goals greatly influences students' performance. Smithson (2012) further noted that when students were personally focused in achieving set goals, they felt intrinsically motivated. The teachers had a duty to help students set specific learning goals and maintain focus (Cheng, 2011). Day and Tosey (2011) concurred with Cheng (2011) by noting that, the learning goals facilitated students' understanding of their own learning tasks. Satyarthi (2017) however argued that there were occasions when specific goals focused people's attention but lacked a specific goal.

Self-discipline was another aspect of self-efficacy reviewed in the current study. Wirth and Leaner (2008) viewed self-discipline learning as the competence to autonomously plan, execute, and evaluate learning processes. Self-discipline gave a sense of direction to the learning process (Staff, 2018). Peters-Burton, Lynch, Behrend, & Means (2012) noted that students acquired more content knowledge when they recognized and acted on their learning. Learning was made explicit by using self-discipline. McClelland and Cameron (2012), emphasized that in a school setting, self-discipline learners controlled their actions, and achieved their best abilities, besides developing positive relationships with

others. Zimmerman and Kitsantas (2014) however contradicted Onyango (2012), who insisted that learning processes yielded much more than self-discipline.

Finally, self-reflection (another agency of self-efficacy) was defined as the art of undertaking a self-appraisal while aiming at evaluating personal progress in order to improve performance. It also meant purposively self-monitoring of an individual's desired goals, projections process, as well as understanding and making informed decisions regarding the learning progress realized. Some research studies provided evidence that self-reflection was highly predictive of a student's academic performance (Zimmerman, 2008). Reflection and specifically written reflection, allowed students to make connections and develop ideas for better understanding (Ziegler & Montplaisir, 2012). This learning approach enabled students to improve their thinking skills as they developed their self-knowledge. Further, self-reflection enabled the learners to evaluate their performance and adjusted strategies needed for future learning opportunities (Ramdass & Zimmerman, 2009).

In addition, Harford (2008) noted that routine reflection exercises resulted in the most exciting and rewarding moments in the classroom. Moeller (2012) affirmed that the students' attitudes towards school and learning become more positive and their participation in the classroom increased when they participated in setting their own goals as they reflected.

3. Methodology

The study used a correlation research design, which helped to investigate the possibility of an existence of relationship between the students' self-efficacy and students' academic targets at KCSE. The study targeted all Principals, Directors of studies; form-three class prefects, and Chair persons of Parents Associations in public secondary schools. Records at Trans-Nzoia County Director of Education office (2018) showed that the County had 101 public secondary schools which comprised of 5 mixed day and boarding schools, 70 mixed day schools, 12 Boys boarding, and 14 girls boarding schools.

To guarantee equal representation, the study used a stratified sampling technique to stratify the population into four homogenous sub-groups (strata). The sub-groups were; boys boarding, girls boarding, mixed day and boarding, and mixed day schools. Names of the schools from the four categories were inscribed on a piece of paper and then folded and shuffled in respective bowls. Simple random sampling technique was employed to select 30% from each category. Fincham (2008) recommends a representative sample of between 10% - 30% of the accessible population as an adequate sample. Fincham

(2008) further endorsed that whenever the target population was small (less than 1000 members), a minimum sample of 30% was acceptable for educational research. The process led to the sampling of 21 schools from the mixed day category, 4 from boys boarding, 5 from girls boarding. The fourth category of mixed day and boarding were purposively sampled because of the small numbers. This improved the precision of the sample by reducing the sampling error. The approach ensured reasonable representation and administrative efficiency.

From the sampled schools, single random sampling and purposive sampling was used to sample 35 principals, directors of studies, Chairpersons of parents Association and 142 form three-class prefects to be respondents.

To ensure validity, a further literature review was undertaken to assist in the operationalization of the constructs that were measured. Thereafter, a sample of close and open-ended question were developed and presented to the experts for scrutiny within the school of Education in Kisii University. This helped in creating and modifying accurate measures of the construct. The experts reviewed the questionnaires for clarity, formatting, acceptable response options and wording. Appropriate recommendations were incorporated in the data collection instruments.

As regards reliability, the researcher administered (pilot study) a single test for the two sets of questionnaires in six schools from the same County to establish the internal consistency of the instrument items. Reliability coefficient of the research instrument was assessed using Cronbach's alpha (α) and computed using SPSS computer software version 20. An alpha of 0.78 was established, an indicator that reliability was adequate. As noted by Ursachi, Horodnic and Zait (2015), a generally accepted rule is that α of 0.6-0.7 indicates an acceptable level of reliability, and 0.8 or greater a very good level.

Qualitative data analysis involved a process of bringing order, structure and meaning to the mass of information collected (Kumar, 2011). This was done descriptively with the help of Statistical Package for the Social Sciences (Version 20) package which provided a summary of statistics that quantitatively described features of information. Quantitative data involved the use of inferential statistics that entailed conversion of data to numerical forms before subjecting it to statistical analysis. Evidence was deduced with the help of the chi-square leading to the acceptance or rejection of the null hypothesis under investigation. In addition, a pared T-Test aided in the establishment of a statistical significance in mean differences between the set and achieved Mean.

4. Results and Discussion

4.1 Introduction

This study sought to determine the extent to which

students' self-efficacy influenced the attainment of set performance targets at KCSE in public secondary schools in Trans-Nzoia County. Table 1 indicates the mean average set academic achievement targets covering the five years under investigation which was set at 5.878 while the achieved was 3.728.

Table 1: Mean scores for set and Achieved Performance Targets

Year	Set academic performance targets at KCSE (Mean score)	Achieved Mean score
2014	6.15	3.85
2015	5.92	3.77
2016	5.83	3.68
2017	5.74	3.64
2018	5.75	3.70
Average	5.878	3.728

Source: Researcher, (2020)

Table 2: Paired Samples T-Test for the Difference in Set KCSE Performance and Attained Performance

		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Target - Achieved	2.30333	1.05552	.19271	1.90919	2.69747	11.952	29	.000
Pair 2	Target - Achieved	2.15167	.90995	.16613	1.81188	2.49145	12.951	29	.000
Pair 3	Target - Achieved	2.15000	.99195	.18110	1.77960	2.52040	11.872	29	.000
Pair 4	Target - Achieved	2.09000	1.08671	.19840	1.68422	2.49578	10.534	29	.000
Pair 5	Target - Achieved	2.05000	1.00164	.18287	1.67598	2.42402	11.210	29	.000

Source: Researcher, (2020)

From the average means, it was evident that the set target performance was not met in all the schools, where the set target was way higher than what the schools actually achieved. Table 2 shows the paired t-test results which indicate that there was a statically significant difference in the observed means between the set target and the actual

achieved performance across the secondary schools in Trans-Nzoia County. There was statistical significant differences' between the set and achieved with p-value $0.000 < 0.05$. Figure 3 shows the class prefects views on the influence of students' self-efficacy on set targets.

Table 3: Class Prefects Views on Self-efficacy

Forethought –Response	N=141	Always	Sometimes	Rarely	Never
Students plan in advance on how to attain set academic performance targets	F %	102 72.3	16 11.3	17 12.1	6 4.3
Students build capacity to manage their emotions about the outcomes of the learning experiences	F %	57 40.4	62 44	19 13.5	3 2.1
Students meditate and analyze their learning tasks so as to make necessary adjustments towards attaining the specific targets at KCSE	F %	98 69.5	32 22.7	8 5.7	3 2.1
Attention focusing -					
Students concentrate their energies and mind on KCSE target as dictated by their ability and future career	F %	78 55.3	38 27	20 14.2	5 3.5
Students exert effort and remain persistent in completing assignments in line with set target.	F %	79 56	49 34.8	11 7.8	2 1.4
Students utilize their time and energy towards the set academic targets	F %	84 59.6	39 27.7	18 12.8	0 0
Self-discipline					
Students plan, execute, and evaluate their learning processes	F %	93 66	40 28.4	4 2.8	4 2.8
Students manipulate their learning environment that supports their quest for attaining set academic targets	F %	75 53.2	44 31.2	15 10.6	7 5
Students adopt better learning habits that strengthen my study skills	F %	91 64.5	41 29.1	7 5	2 1.4
Self- reflection					
Students self-evaluate and adjust their study strategies in order to remain focused towards the set targets.	F %	77 54.6	53 37.6	9 6.4	2 1.4
Students are assisted by their teachers 'to apply effective strategies for self- reflection on the set academic targets	F %	77 54.6	48 34	9 6.4	7 5
Students reflect and adopt personal strategies for sustaining/improving performance	F %	91 64.5	42 29.8	6 4.3	2 1.4

Source: Researcher, (2020)

It is seen that the students' attention focusing was fairly good 78(55.3%) with some of them indicating sometimes. A sizable number 78(55.3%) of students concentrated their energies and mind on KCSE target as dictated by their ability and future career. However 20 (14.2%) rarely focused on their KCSE targets. Lack of focus impeded the achievements of set goals. This assertion was supported by Smithson (2012) who noted that when students were personally engaged in achieving set goals, they felt intrinsically motivated.

The students also asserted that they always 91(64.5%) adopted better learning habits to strengthen their study skills. In regard to self-discipline, it was evident that the students, despite some always practicing self-discipline, still had challenges in sustaining self-regulation to achieve the set target goals. This argument was supported by Peters-Burton, Lynch, Behrend, & Means (2012) who confirmed that students were able to acquire more content

knowledge when they had the ability to recognize and act on their learning.

Lastly, the majority of students 91(64.5%) claimed they always reflected and adopted personal strategies for improving performance while 42(29.8%) claimed they sometimes reflected then adopted the strategies. It can be seen that self-reflection among the students was engaged in sometimes. Ziegler & Montplaisir (2012) agreed that self-reflection, and specifically written reflection, allowed students to make connections and develop ideas for better understanding. Reflecting and contributing to what they desire to be the ideal learning environment was of great importance. This finding however contradicts Iraki (2009) who observed that most students in public schools went to learning institutions with no particular academic goal, no plan for future and therefore they resorted to non-academic activities.

Table 4 displays, all the schools whose performance was to a close extent to the set target were those that had high quality evidence of mentorship programmes while the

majority of the schools whose performance was to no extent close to the target performance 11 (36.7%) were those low quality evidence of mentorship programmes.

Table 4: Chi-square- Student Self-efficacy

Student Self-efficacy		Target Performance				P value
		N=30	Close Extent	Moderate Extent	No Extent	
Mentorship programmes	Low-Quality evidence	F	0	1	11	0.012
		%	0	3.3	36.7	
	High Quality evidence	F	3	8	0	
		%	10	26.7	0	
	Moderate Quality Evidence	F	0	2	5	
		%	0	6.7	16.7	
Performance recognition programmes	Low-Quality evidence	F	0	0	15	0.042
		%	0	0	50	
	High-Quality Evidence	F	3	8	0	
		%	10	26.7	0	
	Moderate Quality evidence	F	0	3	1	
		%	0	10	3.3	

Source: Researcher, (2020)

Table 4 findings imply that schools whose performance was to a close extent to the set target were those which had a high-quality evidence of mentorship programmes. The findings imply that the implementation of mentorship programmes in school increased the likelihood of students meeting the set target as supported by the significant p value $0.012 < 0.05$. Similarly, all the schools with a close extent performance were those schools with high-quality evidence of performance recognition programmes 3(10%) while the majority whose performance was to no extent close to the set target 15 (50%) were those schools low-quality evidence of performance recognition programmes. This claim was supported by the significant p-value 0.042. Therefore schools that had scheduled performance recognition programmes boosted the students' self-efficacy, thus increasing the chances of attaining the targets at KCSE.

The development of performance recognition programmes where incentives for inputs such as doing homework or reading books produced modest gains and was believed to have positive returns on student performance (Bradley, 2011). This claim was supported by the significant p value 0.042. Widespread implementation of incentive programs was perceived to boost the students' self-efficacy towards attaining better performance. The third null hypothesis of the study stated: 'There is no statistical significant relationship between student's self-efficacy and set KCSE

academic performance targets in Trans-Nzoia County, Kenya.' However, from the chi square results, it is evident that there was a significant relationship between student's self-efficacy and set KCSE academic performance in Trans-Nzoia County, Kenya. Hence the null hypothesis was dismissed and alternative hypothesis was adopted. There was a significant statistical significance between students' self-efficacy and students set academic targets at KCSE in public secondary schools in Trans Nzoia County.

5. Conclusion and Recommendations

5.1 Conclusion

Based on the findings of the study, the null hypothesis was dismissed and the alternative hypothesis was adopted. It was inferred that there is a statistical significant relationship between student's self-efficacy and the attainment of targets at KCSE in Trans-Nzoia County, Kenya. In addition, it was also evident that effective implementation of students' mentorship programmes increased the likelihood of students meeting the set target. Effectively managed mentorship programmes ignited students self-efficacy. For Schools to achieve a close extent to the set target, they need to also have performance recognition programmes. Such programmes could help in the recognition and reward of students' efforts, which in turn sustains their psych.

5.2 Recommendations

- i. School principals should intensify the monitoring and supervision of curriculum implementation processes so as to provide timely feedback to the learners regarding the need to drive towards the set target.
- ii. Teachers should assist students to model cognitive strategies and self-regulatory techniques (during mentorship activities) as a remedy for the learning and motivational deficiencies as they may be exhibited.
- iii. As a strategy of boosting the students' self-efficacy, teachers should allow students to be involved in making their own choices as regards their learning environment.
- iv. School management should mount and implement performance recognition programmes as a strategy of boosting and sustaining their self-efficacy.

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