

Relationship between Teacher Capacity Building Strategy and Students' Performance in Public Secondary Schools in Nandi County, Kenya

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ABSTRACT: *The purpose of this study was to investigate the teachers' capacity building strategies that influence students' performance in public secondary schools in Nandi County. The main objective of the study was to examine how teachers' capacity building strategies enhance students' performance in public secondary schools in Nandi County. The study used descriptive survey design. Stratified and simple random sampling techniques were used for the study. The study populations were the principals, teachers and students. The researcher used 30% as population sample size for the public secondary schools, 30% as population sample size for principals, 10% for teachers and 10% for the students. The target sample was (30) public secondary schools, (30) school principals, (85) teachers and (136) students. The findings of the study showed that Nandi County has qualified and well trained teachers. However, in some instances the findings showed teachers' needed refresher-training courses to improve on their teaching performance. The findings showed that students continue to perform poorly in academics in some public secondary schools. It was further found out that contribution of teacher capacity development influences students' performance to a greater extent. The conclusion of the study reinforces the existing studies that have shown that quality of education depend on effective teaching skills, knowledge and attitudes acquired by teachers' through continuous in-service education and training and for which teachers employ at a given time leading to improved students' performance. Similarly, teachers' capacity development should be strengthen in order to enhance teacher professional growth, and to realized quality students' outcome in academic achievement. School principals should ensure that teachers' are held accountable for student learning by putting in place measures that ensures education offered to learners is of high quality. However, students who are not endowed in academics should be guided to discover their talents early, nurture and pursue careers of their choice. Further research on the best approach of addressing poor students' performance in academic achievement in secondary schools need to be undertaken.*

Key Words: Teachers' strategies, accountability, capacity building, effective teaching, students' performance

I. INTRODUCTION

Despite education being considered as a vehicle for national development and various efforts by teachers' to improve students' performance in Kenya, the trend on students' performance in academic achievement in some public secondary remains poor. The continued poor students' performance is of great concern to the education policy makers, teacher unions, development partners, donors, teachers, parents and the society (KNEC, 2013; RoK, 2013). The issue of teacher quality and its relationship to the student outcomes has dominated research discourse and education debates.

In the global scene, United States of America and United Kingdom have stepped-up efforts to improve student performance by focusing on teacher quality. United States of America has been in the forefront in developing teaching standards and strategies for enhancing effective teaching while United Kingdom invested in research to develop teacher framework to improve quality of student learning. An effective teacher is required to collaborate, meet in teams and share experiences to improve students' performance (Wei, et al, 2009; McBer, 2000). According to the Center for Public Education (2013) report, structuring and re-orienting professional development to current education reform demands will enable teachers improve their approach to teaching resulting in realization of effective students' learning (Center for Public Education, 2013).

Equally, Africa has not been left behind; instead measures are continuously being put in place to encourage and facilitate effective teaching to improve students' performance (Grosser, 2007; Pretorius, 2012). This evidence is echoed by Sanyal (2013) who explained that Africa has sufficient policies, mechanisms and processes for assuring quality of teacher education hence need for enriching and up-scaling the on-going teacher quality improvement efforts. For the last 52 years since Kenya gained independence in 1963, government has shown commitment for education development at all levels and in its education strategies, endeavor to improve students' performance in secondary schools and meet other targets such as increasing access to Universal Primary Education. This has resulted in expanded Universal Primary Education to include early childhood care and education (ECDE) and secondary education widely referred to as Universal Basic Education (UBE). In addition, education as a fundamental human right is enshrined in the United Nations' Universal Declaration of Human Rights of 1948. Kenya has strived to meet this commitment as a way of promoting social, economic and political development (RoK, 2005; RoK, 2012). The education reform efforts has been re-affirm by Kenya's commitments towards achievement of Education for All (EFA) priority action points that included the strengthening of teachers' capacities and ensuring learning needs for all young people are met; ensuring equitable access to appropriate learning, providing timely information on students' maturation processes and enhancing students' access to quality education (Rok, 2012).

The role of education in human development is invaluable; provision of quality education results in development of quality and competent human resource central to achieving the national goals of transforming Kenya's economy into middle income industrialized country. In addition, development of quality human resource contributes to accelerated development, industrial development, innovation, reduction of inequalities and provision of efficient and effective delivery of essential services to the citizens (RoK, 2012). According to Center for Universal Education (2011) education results in improvement of health, gender equity and addressing world problems including; poverty, peace building, food security and climate change. Secondary education level in Kenya enables students to acquire knowledge, skills and attitudes, necessary for development as holistic individual in cognitive, affective and psychomotor domains (RoK, 2012).

Further, Kenya's commitment to furthering objectives of secondary education was strengthen by promulgation of the Kenya's Constitution in 2010, development of education policies and the enactment of legislations relating to education. The Constitution places emphasis on strengthening accountability and transparency in the use of public resources, enhancing quality and access to basic education and promoting educational development as a basic socio-economic and human right (RoK, 2010). Some of the laws, legislations and plans include; the Constitution of Kenya of 2010, Basic Education Act of 2013 and Basic Education Regulations of 2015, Childrens Act of 2001 and Education and Training Policy of 2012 (RoK, 2010; RoK, 2012; Laws of Kenya,2013; RoK, 2015). The national plans include; the Kenya Vision 2030 and the second medium term plan 2013-2017. The policies and national plans have identified specific strategies for addressing students' performance and problems experienced in the education sector (RoK, 2011; RoK, 2013).

Teachers are critical in influencing teaching and learning processes in schools. However, contribution of teachers' to student learning in secondary schools continues to draw mixed reaction amongst education stakeholders. Egbo (2011) explained that although teachers' are important resource to student learning, in some instances, teachers are to blame for poor students' performance. According to the Centre for Public Education (2013) report on a large-scale study of English classes established that amongst 85 percent of the 8th and 9th graders, the instruction used included recitation, lecture and seat work activities which serve to enhance memorization of the facts. In addition the report indicated that in spite of teachers having well behaved students in their classes, most of the teachers were not engaging students in meaningful learning activities including; investigation, reasoning, problem solving, and questioning (Centre for Public Education, 2013).

Darling-Hammond (2012) noted that realization of student achievement gains requires teachers to have; strong content knowledge; pedagogical knowledge and skills of how to teach others; understanding learners and their development; having general abilities for organizing, observing, explaining ideas, thinking diagnostically and having adaptive expertise for making judgment in light of student needs in a given context. Stakeholders expectations is for teachers to; teach students impartially , support student learning, adapt instruction to help students succeed, aim at continuous learning and improvement while striving to collaborate with professionals and parents in helping students and the school (Darling-Hammond, 2012). A number of researchers have studied students' performance in

the context of factors affecting students' performance in several or single subjects. The results of the research findings in many studies have shown that the role of the teacher in determining students' performance is significant (OECD, 2009; Cooter, 2003; McBer, 2000).

Today's teachers need to be competent to meet the requirements of changing classroom practice. As agents of change, teachers can promote quality education and improved students' performance in secondary schools. Equipping teachers with necessary teaching competencies will contribute to effective implementation of education reforms. Obanya (2010), posited that teachers remain essential actors and catalyst for change in all efforts aimed at promoting quality education in schools. In order to develop a responsive and effective teacher capable of undertaking the foregoing, Obanya (2010) argues that teachers require opportunities for continuous self-improvement; both career-long and career-wide opportunities that will enable them to acquire skills, knowledge and techniques needed for quality on the job performance. Sanyal (2013) noted that an effective teacher can only be developed by quality professional preparation resulting from quality career long professional development.

Teacher credentials remain one of the necessary conditions for teachers to practice teaching and are a mandatory requirement during teacher registration and recruitment. Kuenzi (2012) explained that although teacher credentials such as teacher qualifications and certification have been proven by research to influence students' performance, this effect is weak. However, teacher credentials remain important consideration for a teacher to be recruited to teach in secondary schools. In Kenya, to teach in secondary schools, a teacher is required to have necessary academic qualifications and teaching skills. According to the Kenya's Basic Education Act of 2013 and Teachers' Service Commission Act of 2012, teachers should provide high quality education to students in secondary schools in addition to being qualified and registered. Secondary school teachers are required to have knowledge of secondary education curriculum and be competent in the subject matter in the area of specialization to teach students (RoK, 2013; RoK, 2012). Such a teacher should have a minimum of diploma in education certificate, which is acquired after three years of teacher training or a bachelor of education degree, awarded after four years of undergraduate course in teacher training. The Kenya's teacher employer, Teachers Service Commission (TSC) affirmed this in the Teachers Service Commission Act of 2012 that, any person wishing to be a teacher in Kenya should be able to comply with the set teaching standards and must meet minimum qualifications. To this end TSC Act of 2012, section 35 asserts that TSC shall take steps that are necessary to make sure that teachers register, have a learning certificate, and undertake career progression and professional development programmes (Laws of Kenya, 2012). It is then that teachers recruited and deployed to various secondary schools take up the noble duty of teaching.

However, the issue of students' performance continues to take centre stage in national stakeholder debates and forums, education planning and implementation in Kenya. For instance, in order to tackle the perennial poor students' performance in mathematics and science subjects in secondary education in the late 1990s, Kenya through collaboration and technical assistance from Japan established Strengthening of Mathematics and Science in Secondary Education (SMASSE) project. The project aimed at providing in-service education and training for teachers and improving students' performance through innovative teaching and learning in secondary schools. According to joint report between Kenya and Japanese International Co-operation Agency (JICA, 2014), the Kenya SMASSE project which closed at the end of 2013 achieved its objectives. The report noted that, majority of the school principals, teachers, and other cadres of education managers benefited from capacity development programme through in-service education and training. Since the inception of phase one of the project in 1998 to phase two launched in 2003, a total of 69,870 teachers, 11,500 school principals, 2,500 education managers of various cadres and 4,800 district trainees were trained under the SMASSE in service training programme (JICA, 2014).

The SMASSE in-service education and training programme was geared towards improving teacher competences in lesson delivery using cascade approach in secondary education. Implementation of the project was by use of ASEI-PDSI approach (Activity, Student centered, Experiment and Improvisation and Plan, Do See and Improve). ASEI approach had five tenets that consisted of; knowledge based activity, teacher centered to student centered, lecture method, theory, experiment and research based approach; in addition, the approach included both small and large scale experiments and use of improvisation. The PDSI approach was aimed at helping teachers to practice ASEI at the classroom level where lesson planning and evaluation was greatly emphasized. In the approach, learners were expected to be actively involved in learning by participating in discussions, experiments and other learning activities (JICA, 2014).

Despite the above interventions on teacher capacity development, the outcomes of student performance in Kenya Certificate of Secondary Education (KCSE) has been inconsistent and at times poor for majority of the students, implying that there could be some gaps which have not been addressed.

1.1 Statement of the Problem

Education is a basic and fundamental right, means of social mobility and socio-economic development. Despite various efforts by key educational stakeholders to improve students' performance through provision of resources for school improvement and provision of subsidized public secondary school tuition to improve access to education and availability of qualified teachers; the trend on students' performance in some public secondary in Nandi County schools is inconsistent and remains poor. In addition, questions have been raised on teacher competences and whether teachers are putting enough efforts to ensure students' perform highly in academic achievement in secondary schools. This is of great concern among the education stakeholders' (KNEC, 2012; RoK, 2010).

Evidence from the Kenya National Examinations Council shows the mean performance students' performance in English and Mathematics remained below 50%, (MOE, 2007) for a five-year period. In 2011 the overall mean performance for English was 36.42 while in 2012, out of 436,349 candidates who sat for KCSE, only 123, 704 representing (28.36%) of the candidates scored grade C+ and above indicating that a huge 71.64% of the students attained average to poor grades (KNEC, 2012/ 2013).

The changing classroom practice with technologically changing learning environment requires teachers to keep abreast with these global experiences and improve students' learning achievement. Teaching changes with changing trends and; teachers in public secondary schools need to improve their teaching competences, skills and knowledge of teaching practice by undertaking capacity development and taking advantage of available professional development opportunities.

1.2 Objectives

The main objective of the study was to examine how teacher capacity building strategies influences students' performance in public secondary schools in Nandi County.

1.3 Research Questions

The following research question guided the study;

- How does teacher capacity-building strategy enhances students' performance in public secondary schools in Nandi County?

II. Literature Review on Capacity-Building Strategy and Students' Performance

Secondary education in Kenya has continued to witness improved access to education by the students. The Education Task Force report on aligning education to Constitution of Kenya (2010) noted that student enrolment at this level increased from 1.18 million in 2007 to 1.5 million in 2009. According to Ministry of Education, in spite of this positive trend, students' performance in academics remained an area of concerned. The learning outcomes at basic education level remains low and that the impact of teacher training on teacher preparation remains debatable (RoK, 2013; RoK, 2012).

a. Causes of Poor Students Performance in Secondary Education in Kenya

Students' performance is very important in any education system since it provide opportunities for young people to reach their full individual potentials, built their future and necessary for achieving national aspirations of social, economic and political developments (RoK, 2010). However, despite the well-stated education goals for secondary education, some schools continue to post poor students' results.

Empirical evidence and synthesis of literature shows that there are a number of factors contributing to poor performance by students both in local and national examination. Yara and Otieno (2010) explained that the causes of poor students' performance, especially in mathematics is due to poor planning by teachers, inadequate teaching and learning resources and teacher shortages. In addition, poor students' performance has been blamed on teacher preparation. According to Kafu (2011), the challenges facing teacher education programme are to blame on inadequate human, material and financial resources, which remain a hindrance to producing quality and competent

teachers. The historical limitations, where poorly trained teachers were appointed as teacher education administrators and graduates employed as teacher trainers were to blame for poor teacher preparation for secondary schools. The appointment of poorly trained head teachers to head secondary schools through political influence was to blame for poor students' performance (Kafu, 2011).

The Kenya Planning report for 2013 further highlights the causes of poor students' performance in Nandi County. The reports states high cost of education in secondary schools, lack of enough classrooms and lack of equipped laboratories, libraries and Information, Communication and Technology (ICT) Centres contributes to poor students' performance. In addition, the report shows that the County continues to experience high school drop outs (1.4%), and high HIV and AIDs prevalence of (6.3%) resulting to the loss of experienced teachers (MoDP, 2013). The causes of poor students performance is supported by Kenya's Ministry of Education, Science and Technology (MOEST) report that stated that shortage of teachers, shortage of material resources, low commitment by some teachers and other key stakeholders to supporting students, low student entry behavior and insufficient funding of co curricular activities which are liked by most students (MOE, 2011). Other reasons were among the explanation points highlighted in the Kenya's education position paper at Washington DC in 2004. The paper showed that Kenya secondary education students performed poorly in national examination due to; low quality of some public secondary schools, inadequate material resources, shortage of teachers, high incidence of poverty and the impact posed by deadly scourge, HIV and AIDs (MOEST, 2004).

b. Teacher Capacity Building and Students' Performance

Educators globally are aware of the need for effective teaching in order to improve the students' learning achievement. The emerging empirical evidence shows that countries in the developed world are concerned with school effectiveness and teacher effectiveness and accountability for student performance is mandatory. As such the strategies employed by the teachers' to improve students' learning is important and must meet set educational and teaching standards (Darling-Hammond, 2012; Cooter, 2003; Mcber, 2000). Building teacher capacity imply investing in human capital to enable teachers' teach effectively (Kasten & McDavis (2005). Improving students performance will enhance the acquisition of skills in cognitive, psychomotor and affective domains which, are critical for intellectual and social development.

Kenya aims to provide quality basic education to all students at all levels (early childhood development and education, primary education and secondary education) in order to meet the provisions provided in the constitution on education and aspirations of Kenyans as stipulated in the Kenya Vision 2030, which is the current roadmap for development (The Laws of Kenya, 2013; RoK,2010). The Constitution bestows responsibility to the nation and requires Kenya to provide quality education as a basic human right while the Vision 2030 calls for enhanced access, retention, equity and quality education for students resulting in an improved quality of life. Therefore, teacher strategy implies the plan adopted by teachers to improve instructional practices both within and outside the classroom.

c. Importance of Teacher Capacity Development to Students Performance

The empirical literature on teacher capacity building is enormous and the evidenced-based research confirms the need for improving teacher competences. Building teacher capacity enables teachers to acquire teaching skills and knowledge, share teaching experiences and collaborate with peers, gain access to career opportunities for professional development and enhances teachers' teaching quality. Capacity building forums exposes teachers to variety of professional development opportunities that includes; curriculum support and study groups and mentoring and induction programs (Jaquith, Dan, Wei, & Darling-Hammond, 2010). In addition, professional development brings in the expertise from outside the school enabling teachers to work collaboratively with peers, get opportunities for mentoring and coaching focusing on theclassroom , and involves teachers in the choice of areas to develop and activities to undertake (Walter & Briggs, 2012). This evidence shows that professional development makes a difference in teacher teaching skills,increases learning quality in the classroom assisting students who could otherwise be at risk hence enhancing students' learning (Cooter, 2003; OECD, 2009).

d. Capacity Building Strategies for Enhancing Students' Performance

The capacity building strategies for improving students' performance includes improvement of teacher's knowledge and skills, organizing seminars, workshops and conferences and mentoring and coaching of teachers and students through invitation of resource persons..

i. Building Teacher's Knowledge and Skills to enhance Students Performance

Researchers have made contributions with regard to the importance of teachers' pedagogical and content knowledge to student performance. Stoop (2011) has shown that effective teachers have comprehensive pedagogical and content knowledge of subject matter and the learning process that influences student achievement. In mathematics factors that have consistently been established to exert a positive influence on student gains include teacher course work, degree attainment, certification, and the pedagogical training on how to teach mathematics (Hightower et al, 2011).

Jones and Moreland (2003) explains through synthesis of literature and the work of Shulman (1987) that, teachers content knowledge, pedagogical content knowledge, curricular knowledge and the knowledge of education ends and context provide distinct bodies of knowledge for teaching which every teacher must possess if effective teaching has to take place. Other research findings support the same view and shows that teachers who pursue professional development and learning results in improved student learning. In English, the effect sizes for literacy studies have yielded 0.48 and 0.89 respectively showing the contribution of teacher effects on students learning (Timperley, Wilson, Barrar & Fung, 2007).

A study undertaken by Japanese International Co-operation Agency (2007) has shown that capacity development results in building capacities of individuals, institutions and countries. According to JICA, capacity development is "the on-going process of enhancing problem solving abilities of developing countries by taking account of all factors at the individual, organizational and societal levels". In Kenya since 1998, JICA has spearheaded a project dubbed, "Strengthening of Mathematics and Science in Secondary Education (SMASSE)", with the aim of strengthening mathematics and science education in Kenyan secondary schools.

The approach for capacity development of teachers through SMASSE was by lesson improvement through in-service training of teachers, using cascade approach to all teacher participants in science and mathematics, building an in-service training system to foster sustainability. SMASSE project success in Kenya resulted in rolling out the programme to other thirty (30) Sub Saharan countries (JICA, 2007). Establishment of national in-service training centre (Centre for Mathematics, Science and Technology Education in Africa) at the Nairobi head quarters at Karen has affirmed the government of Kenya commitment to support and ensure continuity of the SMASSE project. However, impact studies on contribution of the programme to students' performance shows that students' performance in mathematics and sciences improved. According to Ongwel et al (2008) the in service training through SMASSE address teacher attitude, teaching methodology and subject matter mastery among other issues. The in service training had impact and it resulted to improved students' performance in mathematics and biology in secondary schools.

Empirical evidence shows that any effort to enhance effective teaching has to focus on effective teacher characteristics. McBer (2000) has shown through a framework for effective teaching, that three factors within the control of the teacher influences student progress. The factors include teaching skills, professional characteristics and classroom climate. The factors predict over 30% of the variance in pupil progress (McBer, 2000; OECD, 2011). These findings were echoed by Ko, Sammons and Bakkum (2013) who noted in their value added studies on school and teacher effects on students' outcomes that, school contributes about 5-15 percent and that teachers contribute 20-40 percent of the variation in student outcomes in a given academic year.

Seminars, Workshops and Conferences and Students Performance

Evidence from empirical literature indicate that teachers who attend seminars, workshops and conferences gain experiences that help in enhancing teaching skills and results in improvement of teaching approaches in the classroom. In 2013, Kenya held an International Conference at Kenya Education Management Institute with the aim of bringing together education managers to share new approaches on capacity development towards achievement of EFA goals (KEMI, 2013). Seminars and workshops are organized meetings that are important in any area of expertise. Building teacher capacity through workshops has been considered weak way of promoting professional learning. Cole (2012) argues that teachers are required to update their teaching skills and professional knowledge to keep abreast to changing learners landscape and to remain effective. Teachers are hence required to prepare confident, creative and successful students. Teacher's professional learning through workshops are considered to be of short term nature, low intensity and unfocused activity (Cole, 2012). However, according to IR Global Rankings News Bulletin (2013), seminars and workshops allows participants to explore new ways of doing things, create value, adopt best practices, trends, technology and build networks. This is considered handy in efforts aimed at improving teaching skills and students' performance.

Mentorship, Coaching and Students Performance

Realizing success in building teachers' capacity requires identifying resource persons to be involved in mentoring and coaching teachers in wide range of teaching approaches that yield results. Resource persons are people who have the expertise in terms of knowledge, competence and skills and capable of providing coaching and guidance pertaining to the area that needs improvement. Lofthouse, Leat, and Towler (2010), coaching is a teacher development strategy aimed at assisting teachers to gain knowledge, skills and learning opportunities that enhances their development. During coaching, teachers are able to share ideas, understand the linkages between their values, knowledge and practice. In addition, teachers become metacognitive in their work, reflective, exploratory and articulate when handling students. According to Catholic Relief Services of India (2009), for successful capacity-building program, resource persons need to be developed internally by the school. School managers', school principals and teachers need to recognize the area of performance and develop the strategies to counter non-performance.

Mentoring is a structured and sustained way of supporting new teachers to fit into teaching. Koki (1997) argues that mentoring in education is paramount and enables beginning teachers to be inducted into teaching and junior teachers to receive advice and guidance from the lead teachers. Successful mentoring requires those involved to have interpersonal skills and knowledge of a range of teaching methods, mentoring program, careful planning and competent mentors. Competent mentors are able to guide teachers to achieve self direction and responsibility (Koki, 1997)

In Kenya, education reports and empirical evidence shows that teachers' faces some challenges that impact on students' learning and consequently, students' performance. The issues include; capacity constraints by teachers in delivery of subjects such as Kiswahili, Science, Maths and English; teacher education curricular used for teacher training is not based on the training needs assessment (TNA). In addition, limited professional development programs, limited funding and resources for teacher education programmes contributes to limited opportunities for teachers to improve on their teaching skills and knowledge. In addition, need for increase accountability and improved education access and quality is still an uphill task to some teachers (Rok, 2005, 2010 & 2015; Kafu, 2011; Yara and Otieno, 2010).

In order to address teacher issues, Kenya has taken positive steps in addressing teachers' capacity development gaps by establishing institutions to provide capacity-building programmes for teachers at the Kenya Education Management Institute (KEMI). However, the capacity building courses is accessible to mostly senior public teachers in secondary schools; that include the school principals and deputy principals. Research evidence has shown that some lecturers teaching at the universities lack secondary education teaching experiences yet they train the pre-service teachers for secondary schools (KEMI, 2013; RoK, 2005; Yara and Otieno, 2010). The ever-increasing student enrolment levels calls for new strategies to improve students' instruction in secondary schools in Nandi County (Rok, 2005; RoK, 2011; Rok, 2012). It is imperative for public secondary schools to build teacher capacity, organize seminars, workshops and conferences and to organize mentorship and coaching programs for teachers for overall development of teacher capacity.

e. Theoretical and Conceptual Framework

The constructivist theory and conceptual framework guided the study.

i. Theoretical Perspective

Constructivist theory put forward by Lev Vygotsky (1896-1934) guided the study. Constructivism theory is one of the learning theories that state that culture influence cognitive progress while knowledge leads to further cognitive development. Vygotsky maintained that every function in the child's cultural development appears on the social level and later on the individual level. The theory further states that knowledge is the internalization of social activity and that mediation is key to constructivism. According to Vygotsky, his view on Zone of Proximal Development (ZPD) characterized cognitive development and that learning takes place in ZPD.

ZPD shows that as the student cognitive structures develop, it can only mature under the guidance or collaboration with others. The implication of the theory is that teachers as mediators and facilitators of learning influences child's cognitive development, which results in improvement of student learning and social interaction. Teachers are encouraged to engage students in learning by practicing effective instruction and provision of challenging

opportunities while also applying the cooperative learning approaches (Lui, 2012; Teachnology, 2013; Education theory, 2013). Teachers are thus encouraged to improve their teaching skills, knowledge and attitudes to practice effective teaching to be able to keep abreast to changing learners needs.

ii. Conceptual Framework on Teacher Capacity Building and Students’ Performance

Capacity building in the context of the study is an intervention strategy for improving human and school resources. The domain considered three dimensions; building teacher knowledge and skills, seminars, workshops and conferences and resource persons.

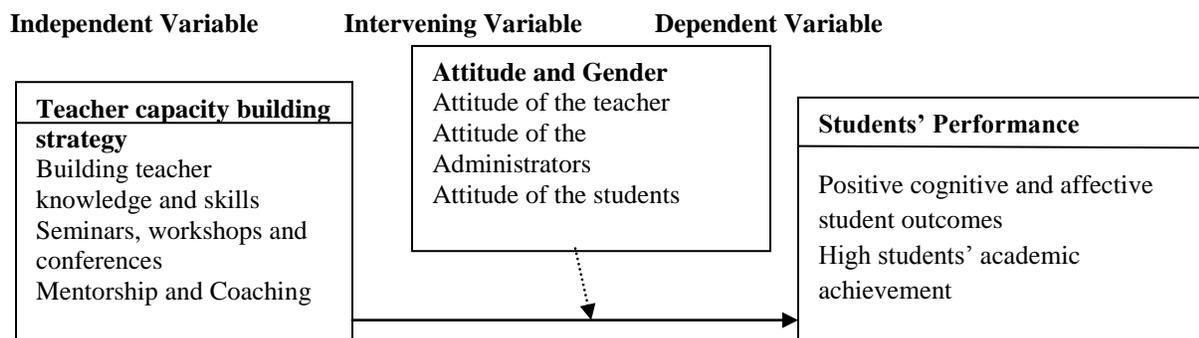


Figure 1. Conceptual Framework on how Teacher Capacity Building Strategy influences Students’ Performance

Figure 1 is a conceptual framework on how the teacher capacity building strategy influences student’s performance. The figure shows how the independent, dependent, intervening variables interact to contribute to student performance and which in turn influences student outcomes. The students’ performance is considered as the dependent variable which is explained through the interplay of the independent variables such as; capacity building strategy and the intervening variable which is the attitude of the administrators, attitude of the teacher and attitude of the students.

III. METHODOLOGY

This section explains the research design, sample size and sampling techniques used for the study.

a. Research Design

The researcher employed descriptive survey design during the study. Survey method is one of the primary sources of collecting data from the population and is preferred because it assists in examining issues and ascertaining the characteristics of variables of interest in line with the objectives of research study (Sekaran, 2010; Orodho, 2005; Kombo & Tromp, 2011). The study was carried out in three sub-counties namely; Nandi North, Nandi Central and Nandi East sub-counties in Nandi County. The target population for the study were public secondary schools, public secondary school principals, teachers and form three students for the year 2013 (MOE, 2012 and 2013).

b. Sample size and Sampling Techniques

The unit of sampling used in the study was public secondary schools in Nandi County. The sampling design used for the purposes of the study was stratified and simple random sampling. The researcher used 30% as population sample size for the public secondary schools, 30% as population sample size for principals, 10% for teachers and 10% for the students. The reason was that the target population for the study was homogenous hence a small sample was appropriate and choosing 30% sample was within acceptable research limits (Mugenda, 2008).

c. Research Instruments

The data collection instruments used in the study included carrying out survey and collecting data by use of questionnaires, interviews and by document analysis. Piloting of the instruments was done in some of the public secondary schools in the sub-county in Nandi County, which did not form part of the sample units under study. Piloting was done after the instruments had been developed and needed to be tried and tested in the field.

IV. FINDINGS

This section presents and discusses the findings of the study.

i. General Information

The general information considered in this section includes the academic qualification of teachers, the experience of secondary school Principals and professional teacher training.

1. Academic qualifications of Teachers

The researcher sought to find out the highest educational qualifications of the teacher respondents. Table 1 shows majority (85.5%) of the teacher respondents had a Bachelor of Education (Arts) Degree, (9.2%) of teachers had a Diploma in Education, (3.9%) Bachelor of Education Science Degree and few (1.3%) had Masters Degree in Education. These findings indicated that teachers had the requisite qualifications for one to teach in secondary schools. Diploma in secondary education is a course of study that takes a duration of 3 years and Bachelor of education (whether arts or science) degree takes a duration of four years for those who pursued 8-4-4 education system and three years for those who underwent 7-4-2-3 education system in Kenya. Kenya's education system was changed in 1985 from 7-4-2-3 to 8-4-4 system following the implementation of Mackay Report of 1981 that had recommended change of education system (Mackay, 1981).

2. Effects of Headship Experience of Principals respondents

The researcher sought to establish the number of years of experience of school Principal respondents. As shown in table 2, majority (65.5%) of the Principals had served for less than 10 years while few (27.6%) had served for between 10-20 years. The finding shows that majority of the principals have served for less than ten years in the headship position. The Basic Education regulations states that a school principal should serve in a secondary school for a period of five years that is renewable once. Most of the school or education strategic plans cover duration of five years hence measuring effectiveness of school principals is possible within this period. The school principal's role is to provide effective leadership needed to steer the school to greater heights of academic achievement, to ensure the school has necessary teaching and learning resources and that the school environment is conducive for learning.

b. Capacity Building Strategies for Enhancing Students Performance in Nandi County

The respondents who were the teachers, principals and students were asked to identify the strategies for enhancing teacher's teaching capacities, which would in turn result in improved students' performance. The strategies that the study investigated included; building teachers' knowledge and skills, attending seminars, workshops and conferences and mentorship and coaching.

4.2.1.0 Building Teacher Skills and Knowledge and Students Performance

Teachers were asked to give their response on how teacher skills and knowledge influences students' performance. Table 3 shows that more than half (57%) of the teacher respondents were of the opinion that building teachers' knowledge and skills results in improved students performance in both local and national examination. Majority of the students (86%) indicated that their teachers have content knowledge and understand the subjects they teach well attend class on time and motivates learners. The results of the findings in Table 3 further indicates that majority of the teachers' (68%) and majority of the students (90%) rating was higher indicating that both the teachers and students attends seminars, workshops and conferences for teachers to sharpen their teaching skills and students to improve their receptiveness to learning. In addition, majority of the teachers (94%) and majority of students (85%) indicated that their schools organized for mentorship, coaching sessions where invited resource persons mentor, and coach teachers on various aspects of teaching and students on ways of improving their learning and classroom teaching. It is evident from the study that in the public schools where these teachers are teaching, some teachers have been exposed to these capacity-building strategies, however these are offered ranging from one day to less than one-month. Despite the strategies for teacher capacity development, students' performance is still poor in some public secondary schools.

4.2.1.1 Reasons for poor Students' Performance in Local and National Examinations

Teachers were asked to give reasons for poor students' performance in some public secondary schools in local and national examinations. Table 4 shows that majority of teachers (96%) and majority (93%) of students respondents indicated most students love to participate in athletic sports that are offered outside the classroom learning activities. More than half (69%) of the teachers and majority (78%) of the students respondents were of the opinion that poor students performance was a result of teacher shortages. The findings indicates that there are other factors rather than teacher capacity that influences students' performance. During the study, as shown in Table 4, majority of the

teachers' (73%) and majority of the students (74%) gave higher rating indicating that there were limited capacity building opportunities for teachers to sharpen their teaching skills. In addition, majority of the teachers (83%) and (78%) attributed poor students performance to insufficient funding for facilitating educational activities and the low student entry behavior. The response is nearly similar to student' where (81%) and (69%) indicated the cause of poor students performance to limited funding and the low student entry behavior.

4.2.1.2 Teacher Professional Development and Students Performance

Teachers were asked to state whether they had attended professional development courses, the duration of the course and the type of professional development course undertaken. The findings in Table 5 shows that majority (57%) of the teachers had attended professional development courses. Majority (91.3%) of the teachers indicated that the professional development course took them less than a month. The findings indicated that majority (65.7%) of teachers had attended SMASSE in-service training courses to improve on their teaching skills, followed by training in guidance and counseling (20%), benchmarking and Kenya National Examination Council training.

4.3 Seminars, Workshops and Conferences according to Teachers

Teachers were asked to provide information on the contribution of seminars, workshops and conferences in enhancing teachers' capacities to teach their students. The findings of the study in Table 6 from the teacher respondents indicated that seminars, workshops and conferences enhanced teachers' capacities to teach their students and; the results showed that majority (67.50%) of the teacher respondents felt that seminars, workshops and conferences assist teachers' acquire extra teaching skills in their subject areas. Only, a few (13.75 %) of teachers indicated that seminars, workshops and conferences assist them to change their attitudes.

4.4 Mentorship, Coaching and students' performance

Teacher respondents were asked to give information as to whether public secondary schools gave teachers opportunities for mentorship and coaching to improve teaching performance. The findings in Table 7 shows majority (93.98%) of the teacher respondents reported that their school had invited resource persons to offer coaching, mentorship and motivational talks to teachers and students. Nearly, (43.4%) of teachers indicated that the key contribution by resource persons is to coach teachers and students' on teaching and examination techniques.

4.5 Student Performance

Student performance is the level of attainment of a student after undertaking approved course of study and where measurement of course objectives is the responsibility of an authorized body. The findings indicated that the Students' Performance in Kenya Certificate of Secondary Education (KCSE) for 2008 to 2012 in the three Nandi Sub-Counties shows students performance has not been very impressive despite minimal improvement from C- (5.059) in 2008 to C (5.9321) in 2012. The students' performance (dependent variable) is shown by the students output depicted by the mean grades and means scores obtained by candidates in KCSE for 2008 to 2012 in Nandi County. In terms of students' performance, Nandi North Sub-County mean grade remained at D+ in 2008 and 2009, improving to C- from 2010 to 2012. Nandi Central sub county public secondary schools have continued to be ahead of Nandi East and Nandi North sub counties. In 2012, Nandi Central Sub County was leading with mean score of 7.047, followed by Nandi East sub-county with mean score of 5.878 while Nandi North Sub County registered a mean score of 4.866. Excellent performance is attained when a student attains grade A (12 points) and fail when a student attains grade E (1 point). According to Kenya National Examination Council, A is the highest score while E is the lowest (weak) score (KNEC, 2015)

4.5.1 Student's Performance in Kenya Certificate of Secondary Education (KCSE) in English and Mathematics in selected Public Secondary Schools in Nandi County in 2012

In considering students performance in mathematics and English subjects in KCSE in 2012 in the County, it was established in the study that the high performing schools in Nandi County, achieved higher mean scores in mathematics compared to county and district school categories. The high performing schools had mean scores of over B- and above in English and mathematics in 2012. Some of the schools were among the leading public secondary schools in the County with high number of quality grades obtained by the candidates in the region. The county and district school categories had mean scores ranging from C to D in the same subjects in KCSE in 2012 (MOEST, 2013). Table 8 shows the summary of candidates KCSE Performance in English and Mathematics in 2012 in the sample Public Secondary Schools in Nandi County. Table 8 shows that in mathematics subject, seven schools had their students attaining quality grades of C+ and above in 2012, leaving 21 schools at grade C and

below representing (75%) of the total sample schools. In English subject, nine schools attained quality grades of C+ and above leaving 19 schools at grade C and below representing (68%) of the sample schools. This evidence is an indication of average to poor student performance in both subjects by majority of the public secondary schools in the County.

For instance, a close scrutiny of student performance in most public secondary schools in Nandi County still indicate some students perform poorly in sciences and mathematics. This is in spite a lot of investment and intervention in in-service training of teachers through SMASSE programme, which started in 1998 and ended in December 2013. An overall analysis of students' performance shows the mean score for mathematics in Nandi North Sub County remained at grade D+ from 2008- 2009.

The principals revealed that although students performance remain the core function of the school, public secondary schools in the district category remained disadvantaged in that; selection of the students to join Form one are normally done when the national and county schools have chosen the best and taken their share. Most students enrolled to district schools have relatively low marks compared to students being admitted to national and county schools.

4.6 Discussion

In discussing issues relating to students' performance, mean grades and mean scores remain the valid measure of the extent to which students or candidates in national examination are able to acquire the skills and competences for life after their four years of secondary school education. During the study, the sub-counties mean grades of public secondary schools in Nandi County were compared for the five year period, from 2008-2012. The findings from the study revealed that in the three sub counties, the average mean grade varied and students' from high performing schools performed well in academics while many of the district schools performance is average while others poor. Poor grades are unattractive in that it limits students from enrolling in competitive courses needed for social and economic development of the country. This implies students who attain poor grades will take a long period of time in training to catch up with those students who attained quality grades and who joined university immediately.

These findings are consistent with Ministry of Education reports that have documented worrying trends of poor performance in KCSE in some schools. The findings are consistent with findings in Kenya's Education position paper in 2004 presented in Washington DC, the United States of America. The paper noted with regard to secondary education in Kenya that, some of the secondary schools in Kenya are of low quality and students performs poorly in academics. In addition, the paper noted that, other challenges include inadequate textbooks and other learning equipments, shortage of teachers, high incidence of poverty and impact posed by HIV/AIDs contribute to poor students' performance (MOEST, 2004).

4.6.1 Ways in which Teacher Capacity Building Strategy contributes to Students Performance

The findings from the study has shown that organizing and rolling out capacity building foras improves teachers' teaching skills in their subject areas, widens teachers' pedagogical experience and strengthens teacher teaching competences enabling them grow as a teacher professional. The study revealed that majority of the teachers were educated and qualified in teaching.

4.6.1.1 Building teachers' knowledge and skills and Students' performance

The findings from the study showed that majority of students respondents indicated that their teachers' had content knowledge and understood the subjects they teach better. The findings revealed that teachers equipped with necessary skills, knowledge and competencies in their subject areas articulate their teaching areas, enabling students to perform better. The finding further shows that prioritizing teachers' professional development enhances the development of teachers' skills, knowledge and competences that is necessary for teacher professional growth and experience and teaching of students. However, the teacher capacity development through SMASSE targeted the mathematics and science teachers whose students had continued to post dismal performance in these subjects in some public secondary schools (JICA, 2014).

The findings agree with McBer (2000) who posited that teachers' professional characteristics are among the aspects that determine student progress and effective teaching in schools. In addition, the findings from the study are consistent with Kasten and McDavis (2005), study that stated that building teachers' capacity equips teachers with skills enabling them teach effectively.

4.6.1.2 Seminars, Workshops, International Conferences and Students' performance

The findings from the study revealed that, workshops and seminars are attended by the teachers accounting for (67.5%) of the professional developments initiatives undertaken by public secondary schools in Nandi County. Seminars, workshops and conferences improve teacher's teaching competences, enables teachers to apply best teaching practices and utilize networks for collaboration in teaching. For instance, students indicated that teachers understood the learning goals an evidence that teachers' equipped with knowledge and skills gained from seminars, workshops and conference is manifested in class by way of the teacher pedagogical delivery approach.

It was established that Nandi County had recognized the contributions of seminars, workshops and conferences for principals and teachers in increasing teacher's knowledge in the area of their expertise and improving students' academic performance. The County education support resulted in improvement in attendance of workshops and joint evaluations, joint examinations organized and co-ordinated by the Nandi County Heads Association (RoK, 2011). These findings from the study concur with IR Global Rankings News Bulletin(2013), which stated that, seminars and workshops allows teachers to create value in their teaching and apply best practices, while building fruitful networks with other education stakeholders.

4.6.1.3 Mentorship, Coaching and Students' performance

Mentorship and coaching is one way of improving teacher capacity and at times involves invitation of resource persons. The study found out that resource persons have knowledge and experience in a particular area. Majority of the teachers revealed that their schools invited resource persons who educated and coached teachers on teaching and examination techniques and educated students on effective study methods. The findings from the study further indicated that coaching play a critical role in enhancing teachers' teaching capacities and student motivation, assist teachers and students to identify their strengths and address any weaknesses pertaining to teaching and students learning. Mentorship assisted teachers to focus more improving approach to teaching. Teachers' therefore, gain learning exposure enabling them develop new strategies for improving students learning and consequently their performance due to changing classroom practice.

V. Conclusion and Recommendations

The following were the conclusion and recommendations for the study.

5.1 Conclusion

Students' performance remains one of the main outcomes of education in any education system and depicts the achievement of education goals by teachers, students' and the schools guided by values of accountability (RoK, 2013). Firstly, the conclusion that emerged in this study is that; few teachers get the opportunities for capacity development. In most instances, teacher capacity building is tailored to some subjects such as mathematics and sciences leaving out other critical subjects. In spite of steps taken by some school management (Board of Management), in Nandi County to allow principals, teachers and students to attend workshops and conferences with objective of improving students' academic performance, there is large number of teachers who have not attended the teacher capacity building courses.

Secondly, it can be concluded that in some public secondary schools in Nandi County, students performance is average to poor. There is need for teachers to expose students to other learning activities such as co-curricular activities. This will assist students in identifying talents and teachers can assist students to nurture these talents to bring out the best from each student that may assist in making career choices in future. Thirdly, from the findings of the study, there is need for targeted capacity development for teachers to be supported to acquaint teachers to innovations and trends in teaching as a practice. The knowledge acquired will assist teachers to better address poor students' performance. Fourthly, apart from teacher capacity development, several factors influence the students' performance including more focus on co curricular activities, limited funds to finance educational activities, school management support, low student entry behaviour, and shortage of teachers to teach in secondary schools.

5.2 Recommendations

Based on the findings of the study, Nandi County public secondary schools need to engage and provide guidance to students, who are not performing well in academics. The students should be exposed to other learning opportunities such as co curricular activities so that they develop their hidden talents. These activities will assist students to discover and nurture their talents that will shape their future careers.

In order to enhance teacher capacity development, Board of Management in public secondary schools in Nandi County need to; attend capacity building training to enhance efficiency in education management and set aside resources and develop or implement School Teacher Development Policy (STDP) to build on their teachers' teaching capacities and propel teacher professional growth.

Ministry of Education Science and Technology through its policy on Education and Training (2012), and Kenya Vision 2030 commitments on basic education should; modernize teacher training, review teacher education courses relating to secondary education, scale-up the existing in-service teacher training programmes (that targeted mathematics and science teachers) and develop tailor made training programmes for teachers in other subjects. Further research be undertaken on the best approach of addressing poor students' performance in public secondary schools.

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