Coping with Resource Management Challenges in Mumias Sub-County, Kakamega County, Kenya

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Abstract
The gist of the study was to examine the main coping strategies used to manage resources in public secondary schools in Mumias Sub- County, Kakamega County, Kenya. The study was premised on Hunts (2007) theory on project management. A descriptive survey design was adopted. A combination of Purposive and simple random sampling techniques were used to draw 25 head teachers, 200 teachers and 25 chairpersons of Parents Teachers Association (PTAs), yielding a total sample of 250 respondents. Interview schedules and questionnaires were used to collect data from chairpersons and head teachers/teachers, respectively. The study established that the various resource management challenges were: inadequate funding by the Government through the Ministry of Education, overstretched physical facilities as well as inefficient utilization of the available physical and human resources in schools. In addition, most schools had devised coping strategies to manage the constraints. It was recommended that school managers should involve teachers and learners in decision making process regarding effective management strategies that enhance school quality outcomes in Mumias Sub-County, Kakamega County , Kenya.[172 words].
Keywords: Management strategies, Public Secondary Schools, Mumias Sub-county, Resources,   Kenya**.**

I.   Introduction
1.1 Background to the study
Globally, education is considered not only as human right (United Nations, 2012; UNECSO, 2011) but also an overriding tool to steer personal and national socio-economic development (Republic of Kenya, 2012; Sava & Orodho, 2014; UNESCO, 2012) and a means for culture diffusion, knowledge and social values transfer amongst generations and individuals and a gear for socio-political human resource development (Sava & Orodho, 2014; United Nations, 2012). Above and beyond these considerations, it is opined that education is a means for the production of human capital for the society and individuals (Orodho, Waweru, Getange & Miriti, 2013) and generates social and private returns (United Nations, 2011). There is a growing body of research which attempts to relate the effects of resources on classroom management and effective curriculum implementation (Birimana & Orodho, 2014;   Orodho, 2013; Orodho, Waweru, Ndichu & Thinguri, 2013; Waweru & Orodho,2014).A study by Birimana and Orodho (2014) on teaching and learning resource availability and teachers effective classroom management and content delivery in secondary schools in Huye District, in the Republic of Rwanda established that there was a positive and significant correlation between teaching and learning resources and teacher effective classroom management, content delivery and eventual students' academic performance.

This finding was in tandem with the findings documented earlier by Orodho, Waweru, Ndichu and Thinguri (2013) in Kenya which established that the challenges of availability and adequacy of learning resources was found to negatively affect teacher effectiveness in the use of teaching methods as well as focus on individual learner, hence, fostering discipline and good attainment of good academic results. The finding also echoed the results of a study by Waweru and Orodho (2014) in secondary schools in Kiambu District, Kenya, on management practices and students' academic which established that effective resource management is a prerequisite to enhanced students' academic performance. All the foregoing studies allude to the fact that resource management strategy is the efficient and effective deployment of an organization's resources when they are needed, and are very critical to enhanced academic performance in schools. It consists of analysis, decisions and actions an organization undertakes in order to create and sustain competitive advantages (Birimana & Orodho, 2014). Yet, although the government of the republic of Kenya allocates resources to schools in line with the subsidized day secondary education policy, school outcomes in Kenya differ remarkably. It is against this backdrop that this study which examined the coping strategies with resource constraints was premised.

1.2 State of the Art Review
Literature is abundant, which attempts to relate the concepts of teaching and learning resources and eventually on their overall influence on classroom management and effective curriculum implementation (Orodho, 2013;

Orodho, Waweru, Ndichu & Thinguri, 2013). Orodho, Waweru, Ndichu and Nthinguri (2013)   established that the challenges of availability and adequacy of learning resources was found to negatively affect teacher effectiveness in the use of teaching methods as well as focus on individual learner, hence fostering discipline and good attainment of good academic results. According to Sava et.al. (2014), a resource is a useful or valuable possession or quality of a country, organization or person. Sava et. al. (1996) contends that resources available for organizations are human, financial, physical and informational

Bizimana and Orodho (2014) write that school teaching and learning resources include buildings, particularly classrooms with lockable doors for storage of materials, teaching aids like textbooks, visuals aids and other scholastic materials. According to Orodho (2014), at a bare minimum level, schooling would require a building; some provision for seating children, drinking water and sanitation facilities and teaching materials; teachers and provision for upgrading skills of teachers. Lack of any of these would render the schooling experience ineffective.

With regard to the effects of resource availability on classroom management and content delivery, Ampofo and Orodho (2014) aver that teaching and learning resource availability helps teachers teach effectively in convenient and comfortable surroundings. The lack of physical resources inevitably hampers the teaching; depress the spirit of the children and the enthusiasm of the teachers. In a similar vein, Orodho (2013) counsels that in order to improve the effectiveness of their teaching, teachers use techniques and tools like the simple tool as the blackboard and technology techniques and tools as experimentation in laboratories, drama classes in the school theatre, radio, television, video and audio cassettes and computers to supplement what they can do with their local resources.

Waweru and Orodho (2014) contend that in order to foster the learning, the teacher should give the learners chance for practical work. In this respect, teachers should be availed with a wide range of materials. They advise teachers to allow children to make their own conclusion from their findings. Children should be let to discover knowledge and answers to challenges in their daily lives. Of course the practices mentioned above are possible with the availability of sufficient and adequate teaching and learning resources for teachers (Orodho, 2013). Resources help the teacher to organize and manage the classroom environment as an efficient learning environment and thereby maximize engagement rates. Sava and Orodho (2014) claim that resources promote good preparation, smoothness and momentum lesson pacing and clarity about when and how students can get help and about what options are available when they finish. Sava et.al (2014) write that materials enable the teacher to bring into a classroom the situation which was impossible to being possible. He suggests a case in point where a teacher is teaching about irrigation scheme in hilly areas, hence by the use of these equipment he brings the real situation of irrigation in the classroom just by the use of a screen which can show the pictures

School leaders across the nation are exploring ways to better educate students and improve school performance. School-based management offers a way to promote improvement by decentralizing control from central district offices to individual school sites. It attempts to give school constituents-administrators, teachers, parents and other community members--more control over what happens in schools. Endorsed by many organizations, including the National Governors' Association, School based management is being tried in counties of varied size and wealth. But so far, we have only a small bit of knowledge about how to make School based management work (Orodho, 2013; 2014) .

The above considerations and expectations from education attract not only corporate social investments but also private ones in the education sector (Ampofo& Orodho, 2014; Fleet, 2012 ;).   The advocates of the determinants of study area choices categorized them as personal, institutional, social, financial, job related and contextual (Ampofo & Orodho, 2014).

1.3 Objective of the study
The thrust of this study was to examine the coping strategies with resource constraints adopted in public secondary schools in Mumias Sub-County, Kakamega County, Kenya.

1.4Theoretical Frame Work
The study was based on Hunt theory (2007) on Assessment. The principles of effective resource management are potentially applicable to any project type across different industries. It has been established that the basis of these principles have been designed so as to accommodate variety of tasks but still fine tuning is required during the management of certain resources. The role of resource manager is seen central to the process of resource management but it has been established in literature that it should not be regarded as one man task since it requires other individuals and their competencies that are grouped together and who are dedicated to achieving the particular objectives of the resource (Pinkerton, 2003). The school of thought that believes in blending both hard and soft issues to build upon resource management techniques is growing. It can be concluded that resource management skills and process although are generalized for any type of resource within any school but these are more appropriate for some than others. Levine (2002) has suggested that weather an organization is involved in

managing projects or not in the traditional sense, it requires the management of its assets and project management provides overall process and skills needed to achieve any change objectives.

II.   Research Methodology
2.1 Research Design and Locale
The study used a descriptive survey research design. The researchers choose descriptive survey because it involves gathering cross-sectional data from a wide range of respondents and making interrelationships between the various variables of interest (Orodho, Khatete & Mugiraneza, 2016). The research was conducted in public secondary schools in Mumias sub-county, Kakamega County. Mumias sub-county is located in the former Butere-Mumias District of Western Province. Mumias sub-county was chosen basically because the Kakamega County Development   Plan (2012) laments that resources in primary schools are inadequate. Thus, it was the contention of this paper that these resources would either be unavailable or the few that are available were not being managed effectively, hence the need to establish whether these variable could be related to the poor learners' academic performance being witnessed in the county.

2.2. Population and Sample selection
The target population was 64 public secondary schools comprising of 64 headteachers, 60 chairpersons of the Parents Teachers Association (PTAs) and 200 teachers distributed in 64 primary schools in Mumias Sub-County, Kakamega County. Purposive sampling was used to select 25 schools to constitute the sampling units for the study. From each school, purposive sampling technique was used to select a head teacher and chairperson of PTA from each school, yielding 25 headteachers and 25 chairpersons of PTA. Simple random sampling was used to select 10 percent of the teachers, yielding 200 teachers. The entire sampling process yielded total sample of 250 respondents to participate in the study. This sample size constituted 31 percent of the entire population, hence deemed adequate to be a representative sample (Orodho, 2009a, 2012; Orodho, Khatete & Mugiraneza, 2016).

2.3. Research Instruments
The study used questionnaires and interviews. The questionnaire was preferred because it can be used to generate large amounts of data from large samples over a short period of time (Orodho, 2012; Orodho, Ampofo, Bizimana & Ndayambaje, 2016). The questionnaires were piloted using a small sample not included in the final sample to determine the validity and reliability**.** While validity is the extent to which the instrument measures what it purports to measure, reliability is the stability or consistency of the instrument in measuring the particular trait (Creswell, 2009; Orodho, 2009a, 2012; Orodho, Ampofo, Bizimana & Ndayambaje, 2016). The content validity of the instrument was determined by discussing the items in the instrument with experts from the university in the Department of Educational Management and Curriculum Studies, School of Education. The advice by these people helped the researchers to improve the validity of the research instrument.

In order to test the reliability of the instrument to be used in the study, piloting was carried out in two public secondary schools in neighbouring Butere Sub-County. The developed questionnaires were given to two head teachers and four teachers, the answered questionnaires were scored manually, the same questionnaires were administered to the same group of subjects after a period of two weeks and questionnaire responses scored manually. A comparison was obtained between the two results. A Pearson product moment formula for the test-retest was employed to compute the correction coefficient in order to establish the extent to which the content of the questionnaires were consistent, that yielded a coefficient of $r = .87$. This was above the .75 level suggested by Orodho (2009a) and Creswell (2009) for establishing the reliability of the questionnaire.

2.4 Data Collection and Analysis
A research permit was obtained from the National Commission of Science Technology and Innovation (NACOSTI) to enable the researchers collect data. The other permit was obtained from the County Director of Education, Kakamega County, Kenya. The major task of collecting data started immediately after the two sets of authorization had been obtained. Data was collected primarily through the use of questionnaires and interview schedule. Data analysis is the process of bringing order, structure and meaning to the mass of information collected. It involves data coding, data entry and entering data in computer programme such as the Statistical Package for Social Sciences (SPSS) Computer version 20 (Orodho, Ampofo, Bizimana & Ndayambaje ,2016; Orodho, Khatete & Mugiraneza, 2016). Descriptive statistics was used to analyze data. Descriptive statistics used percentages and frequencies. Inferential statistics such as Persons Product Moment Correlation (r) and Analysis of Variance (ANOVA using F- test)   were used to test the hypotheses (Orodho, Khatete & Mugiraneza, 2016).

III.   Research Findings and Discussion

3.1 The major Challenges facing Effective Resource Management

The headteachers and teachers were requested to indicate the main resource utilization challenges and their influence on academic performance of students in public secondary schools in Mumias Sub-County, Kakamega County, Kenya. The results are depicted in Figure 1. The results carried in Figure 1 indicates that the most highly rated challenge was inadequate funding cited by slightly one quarter of the total sampled subjects.

Figure 1 : Challenges facing education in Mumias Sub-County, Kakamega County, Kenya
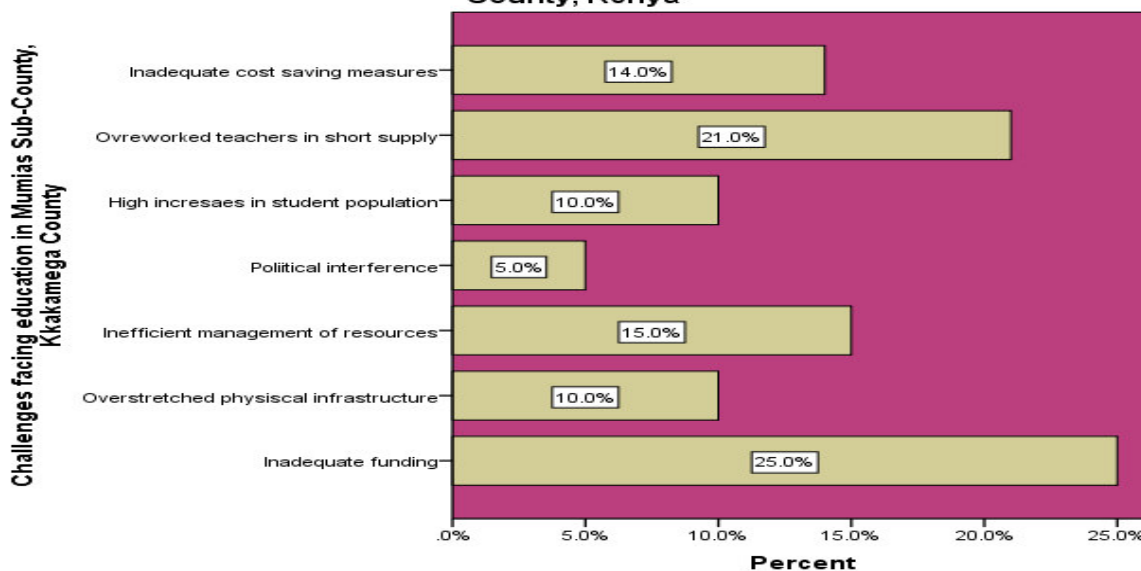
The second challenge, cited by 21 percent of the respondents was over-worked teachers due to their shortage in posting. This challenge seem to arise from the first since in the circumstances of inadequate funding, it becomes difficult to put up enough physical facilities commensurate to the ever surging pupils enrollment. The third highly rated challenge, cited by 15.0   percent of the respondents was the inefficient management of the available resources. At the fourth position was inadequate cost-saving measures cited by 14.0 percent of the total sample. At position five were overstretched physical facilities and high student enrollment rate both cited by 10.0 percent of the respondents. The other challenge cited by 5.0 percent of the sampled respondents was political interference.

Further analysis by type of respondent indicated that a majority, constituting 80.0 %, 84.0% and 76.0% of the teachers, chairpersons of PTA and headteachers of the public primary schools   sampled respectively agreed that there were effective physical resource management strategies in place that were geared towards the enhancement of students' academic performance in national examinations. The minority of the respondents, especially the teachers, indicated that they were not actively involved in decision making process regarding the utilization of physical resources and cost-saving strategies in their respective schools.

The findings are in tandem with Bizimana's and Orodho's (2014) argument that school teaching and learning resources include buildings, particularly classrooms with lockable doors for storage of materials, teaching aids like textbooks, visuals aids and other scholastic materials. According to Sava et.al. (2014), at a bare minimum level, schooling would require a building; some provision for seating children, drinking water and sanitation facilities, teaching material; teachers and provision for upgrading skills of teachers. Lack of any of these would render the schooling experience ineffective.

3.2. The Strategies to cope with the Challenges

The headteachers sampled and the Quality assurance and standards officer (QUASO) in Mumias sub-County were requested to indicate the most plausible copping strategies to deal with challenges**.**   The results are indicated in Figure 2. The data in Figure 2 indicate that the most highly ranked copping strategy was encouragement of innovation through sharing of facilities and development of instructional resources, as reported by 17.57% of all respondents.

The second highly rated coping strategy cited by 16.22 % of the respondents was involvement of parents through parents' teachers associations (PTAs) and Board of Management (BOM). The third highly ranked coping strategies cited by 13.51% of the sampled respondents were use of student alumni as teachers and establishment of income generating activities. It was encouraging to note that some schools in the neighbouring sub-counties that use former students as teachers were yielding very encouraging results. The suggested income

generating activities included keeping dairy animals, running tack shops for students, vegetable growing, hiring out of school facilities such school bus and buildings for functions and farming.
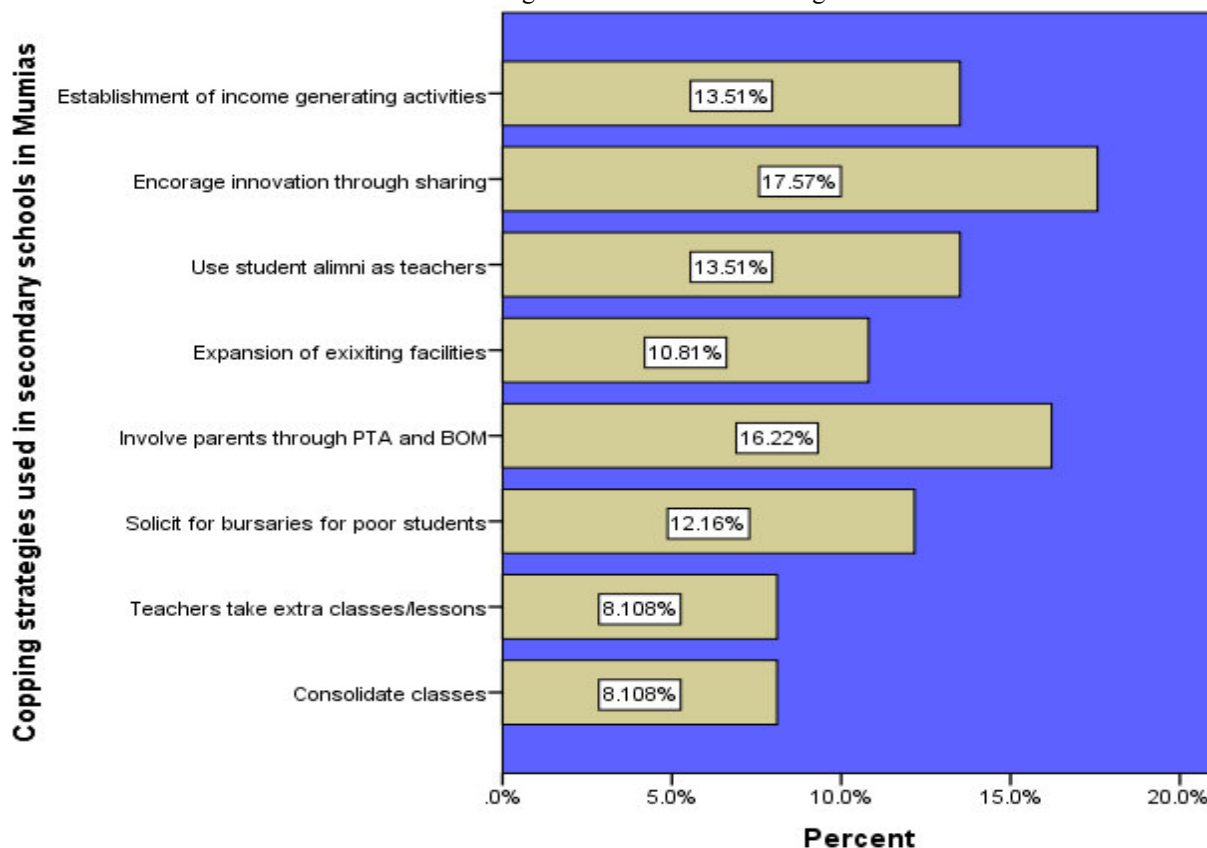
The fifth highly ranked strategy was soliciting of funds for the poor but needy students through Constituency Development Fund (CDF) and other voluntary and/or charitable organizations. The other coping strategies included; expansion of existing facilities (10.81%), teachers to take extra lessons (8.1%) and consolidation of classes (8.1%).

The findings of this study are consistent with what other scholars such as Waweru and Orodho (2014) who contend that in order to foster the learning, the teacher should give the learners chance for practical work. In this respect, teachers should be availed with a wide range of materials. They advise teachers to allow children to make their own conclusion from their laboratory findings. Learners should be let discover knowledge and answers to challenges in their daily lives. Of course the practices mentioned above are possible with the availability of sufficient and adequate teaching and learning resources for teachers (Orodho, 2013). Resources help the teacher organize and manage the classroom environment as an efficient learning environment and thereby maximize engagement rates. Sava and Orodho (2014) claim that resources promote good preparation, smoothness and momentum lesson pacing and clarity about when and how students can get help and about what options are available when they finish. Sava et al. (2014) write that materials enable the teacher to bring into a classroom the situation which was impossible to being possible.

The finding that most teachers were willing and actually voluntarily take extra lessons and cooperate with their junior alumni teachers was quite encouraging. School leaders across the nation are exploring ways to better educate students and improve school performance using the cooperation of such willing teachers. School-based management offers a way to promote improvement by decentralizing control from central district offices to individual school sites. It attempts to give school constituents- administrators, teachers, parents and other community members- more control over what happens in schools (Orodho, 2013; 2014).

IV.   Conclusion and Recommendations

The main aim of this study was to examine the resource management strategies in relation to learners' performance in national examinations in public secondary schools of Mumias Sub-County, in Kakamega County. The study has established that despite the free day secondary education policy, most public secondary schools were still experiencing multifarious and intertwined challenges ranging from inadequate funding, overworked teachers due to shortages of teachers posted in schools, inadequate cost saving strategies to prudently manage the scares resources and exponential expansion of student enrollment which had overstretched the available

resources in schools.

It was also encouraging to note that most schools were making frantic efforts to cope with the challenges and schools were coping differently with these challenges. Some of the coping strategies included encouragement of parents to take an active role in school management through PTA and BOM, encouragement of sharing of facilities and innovation, teachers volunteering to take extra lessons and the use of student alumni to teach. Other strategies included establishment of income generating activities and developing strategies to assist the poor but needy students to raise school fees.

The following are the recommendations of this research based on the findings of the study:

1. The school management should not ignore teachers and learners participation in their schools management strategies. Teachers and the learners should be involved in decision making as far as resource management strategies is concerned.

2. Increased learners' performance is related to provision of adequate physical infrastructure. The Government of Kenya, through the Ministry of Education should ensure basic learning facilities are put in place across all schools not only in the study locale of Mumias Sub- County, Kakamega County, but also other regions experiencing similar constraints.

3. The study established that most teachers voluntarily take extra classes to seal the shortage of teacher posting. The school should set aside some funds from their budget to be utilized for teachers, learners and support staff motivation.

References

Ampofo, S.Y. & Orodho, A.J.(2014)**.**Significance and Delivery of Teaching Practice : Perceptions of Distance Education Teacher Trainees of the University of Cape Coast , Ghana. *International Journal of Recent Scientific Research. Vol.5. Issue 4.pp.868-876, April, 201*4,http://www.recentscientific.com .

Birimana, B. & Orodho, A. J. (2014). Teaching and Learning resource availability and teachers effective classroom management and content delivery in secondary schools in Huye District, Rwanda. *Journal of Education and Practice. Vol.5, No.9.2014*pp 111-122.www.iiste.org .

Creswell, J. W. (2009). *Research design: qualitative, quantitative and mixed methods approaches.* Thousand Oaks, California: Sage Publications.

Fraenkel, J.R & Wallen, N. E. (2000). How to Design and Evaluate Research in Education (4th Ed.). Boston: Mcgraw Hill.

Kerlinger, F.N (2004). *The Methodology of Educational Research*: *The Methods Approach.Library Anxiety:* Theory, Research, and Applications, Tusu Printers

Lewis, W.G.; Pun, K.F.; Lall, T.R.M. (2006). "Exploring soft versus hard factors for TQM implementation in small and medium-sized enterprises". *International Journal of Productivity and Performance Management* **55** (7): 539–554. doi:10.1108/17410400610702142.

Orodho, A.J. (2009). *Elements of Education and Social Science Research Methods*: Maseno, Kenya: Kanezja Publishers.

Orodho, A.J. (2012). *Techniques of Writing Proposals and Research Reports in Education and Social Science Research Methods*: Maseno, Kenya: Kanezja Publishers

Orodho, A.J.(2014).Policies on free primary and secondary education in East Africa : Are Kenya and Tanzania on course to attain Education for All (EFA) Goals by 2015?. *International Organization of Scientific Research (IOSR) Journal of Humanities and Social Sciences (IOSR-JHSS). Vol.19. Issue I, Ver. V (Jan., 2014*), pp 11-20   .www.iosrjournals.org.

Orodho, A.J., Waweru, P.N., Getange, K.N & Miriti, J.M.(2013).Progress towards attainment of education for All (EFA) among nomadic pastoralists : Do home-based variables make a difference in Kenya? *Research on Humanities and Social Sciences. Vol3.No.21, 2013* pp54-67.www.iiste.org .

Patanastasiou.E, C. (2002). Effects of Background and School Factors on the Mathematics Achievement. *Educational Research and Evaluation, 8* (1), 55-70.

Pinkerton J. & Percy A. (2003). *Family support in Ireland*: Developing strategic implementation. Child care in practice, 9, p. 309-321.

Sava, L.A. & Orodho A.J (2014). Socio-economic factors influencing pupils' access to education in informal settlements: A case of Kibera, Nairobi County, Kenya. *International Journal of Education and Research.Vol2.No.3 March, 2014* pp1-16.www.ijern.com .

UNESCO. (2011).Conceptual evaluation and policy development in lifelong learning. Hamburg .UNESCO. Institute of Lifelong Learning.

UNESCO.(2012). Systematic monitoring of education for All. Paris: United Nations Educational, Scientific and Cultural Organization,(UNESCO).

United Nations. (2012). *Youth and Skills: Putting Education to work.* EFA Monitoring Report.

United Nations. (2013). *A New Global Partnership: Eradicating Poverty and Transform Economy through*

Sustainable Development. The Report of the High-Level Panel of Eminent Persons on the Post- 2015 Development Agenda. The United Nations.

Waweru .P, N& Orodho, A.J.(2013).Management practices and students' academic performance in national examinations in public secondary schools in Kiambu County. International Journal of Scientific Research. Vol.5, Issue 2 ,pp 472-479 February, 2014.www.recentscientific.com .