



Research Article

Volume-02|Issue-02|2021

School's Administrations' Role in Improving Learner Performance at Ordinary Level Public Examinations in Zimbabwean Secondary Schools

Itai Mupfudze*¹, Tichaona Mapolisa¹¹Zimbabwe Open University, Harare, Zimbabwe

Article History

Received: 15.02.2021

Accepted: 26.02.2021

Published: 28.02.2021

Citation

Mipfide, I., & Mapolisa, T. (2021). School's Administrations' Role in Improving Learner Performance at Ordinary Level Public Examinations in Zimbabwean Secondary Schools. *Indiana Journal of Humanities and Social Sciences*, 2(2), 11-24.

Abstract: The study sought to establish the role of school's administrations in improving learner performance at Ordinary Level public examinations in Zimbabwean secondary schools. In Zimbabwe the enormity and critical nature of educational challenges were evident in the increasing low performance of learners in Ordinary Level examinations and in the sporting activities as well as bad behaviour by learners. The Zimbabwean Government and parents heavily invested in education and yet performance of learners at Ordinary Level examinations was disappointing during the five recent consecutive years (2013-2017). The researcher employed the mixed methods research methodology and adopted pragmatism as its philosophy in guiding the research study. The research design adopted in the study was the triangulation design. Expert sampling and random sampling techniques were adopted to draw up a sample of 216 respondents with 5 participants inclusive. The study's main data collection and generation instruments were the questionnaire and the interview. Observation and document analysis were also used to collect data. Thematic content analysis was used to analyse data. Tables were used to present results. The major findings were that the teaching and learning resources were inadequate. It was revealed that school's administrations had many duties to efficiently and effectively perform to such an extent that there was inadequate supervision of lessons and exercise book inspections. The conclusions were that most secondary schools had insufficient textbooks for the learners. Further, the research study concluded that school administrations had many duties and they were sometimes interrupted by parents and visitors. The study recommends that schools should ensure that the teaching and learning resources were available for the learners. The school's administrations should be relieved from supervision especially on lesson observations and exercise book inspections.

Keywords: Zimbabwe, Secondary School, Government, Learners.

Copyright © 2021 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0).

INTRODUCTION

The topic of the research study is "School's administrations' role in improving learner performance at Ordinary Level public examinations in Zimbabwean secondary schools". The idea is to identify strategies which have consistently positive effects in improving learner performance at Ordinary ('O') Level in secondary schools.

The paper is organised in sections. The first section is on background to the study, statement of the problem and research questions including related literature, the second section is on methods and procedures, the third section is on findings and discussions and the last section is on conclusions and recommendations.

BACKGROUND TO THE STUDY

Education remains the biggest instrument for academic progress, social mobilisation, political survival and effective national development of any country and it constitutes the largest industry in many countries the world over including Zimbabwe. Bowles *et al.* (2018) state that education occupies an important position in every major economy of the world. In the United States of America, over 6% of the gross national budget is yearly spent on formal education alone. The

United Nations Development Programme (UNDP) for 2012 indicates that public spending on education is 3.6% of Gross Domestic Product (GDP) in East Asia (UNDP, 2013). Kenya spends over 6.57% of GDP on education over the financial year period 2011/12. In Zimbabwe, nearly 23% of the national budget goes to education each fiscal year (The Herald, July 15 1991).

One of the indicators of quality education being provided is the cognitive achievement of learners (United National Education, Scientific and Cultural Organization (UNESCO, 2005). Kimani *et al.* (2013) say the academic achievement is designated by test and examination scores or marks assigned by the subject teachers. According to UNESCO (2005) "education is the springboard for economic and social development in Africa".

As a result, Governments continue to invest heavily in school facilities, instructional materials, and teaching personnel. Bowles (2017) points out that most forms of schooling are a direct input into yet higher levels of education. The evaluation of school output should not be confined to the direct effects of schooling on the productivity of the worker but should also include the inculcation of good citizenship skills. There is evidence that success in vocational training as well as

in higher education may be significantly related to the initial level of academic performance.

As argued by Bowles (2017), a production function gives a better indication of the productivity of school inputs. The World Bank (2018) suggests that education provides a fertile ground without which other development initiatives would not take root. As indicated in the World Bank (2018), experience from Africa and elsewhere provide strong evidence that increased efficiency in education and training yields broad economic and social benefit. In Zimbabwe, investment in the provision of family planning services is more effective if women using the service are better educated. One of the economic functions performed by education is socialisation. According to Zvobgo (1996), education in Zimbabwe is viewed as an effective vehicle for promoting the social goals of the country including the development of non-racists attitudes, a new national identity and loyalty to the state. Improving the distribution of education would then result in reducing income disparities. If many people are educated and subsequently become employed, the income tax base would be broadened. In economics, education is regarded as an investment good which yields future returns in the form of increased income.

The Zimbabwean Government has invested a lot of money in educational expansion. In 1988 the total expenditure on education was \$859 021.00 according to the annual report of the Secretary of Education and Culture (1988). With a lot having been achieved in terms of quantitative expansion, it does not appear that the same would be said for the quality of education. Studies by Nkoma & Mapfumo (2013); Garira (2015) express concern about the quality of education, particularly the low levels of academic achievement.

In Chile, for example, teachers are rewarded collectively when they work in schools which are

identified as high performing in the National Performance Evaluation System of Subsidised Schools (UN Information, 2009). School Heads, teachers and parents are primarily responsible for learners' academic performance (Darling-Hammond, 2000). Schools are evaluated using learners' achievement data (Heck, 2009).

In Australia, in 2013, there is record fall in learners getting low grades at Ordinary Level. Pring (2012) argues that many factors are underlying these results, including a sizeable increase in entry by 15-year olds, new science specifications designed with greater challenge, early and multiple entries in Mathematics as well as increased numbers of foreign learners without an English background. Writing about Australia, Coleman & Fraser (2011) postulate that performance of learners in public examinations has been declining for the past five years due to many reasons, chief among them being lack of parental involvement in their children's learning, especially those at secondary schools.

In Zimbabwe, the enormity and critical nature of educational challenges are evident in the increasing low performance in Ordinary Level examinations and the sporting activities as well as bad behaviour by learners. Studies by Mji & Makgato (2006) express concern about the quality of education, particularly the low levels of academic achievement. According to Tsime (2019), the Ordinary Level results consistently record a pass rate of between 18.4% to a high of 22% during the five years. Statistics from Chitungwiza District reveal that many schools performed even below the national average pass rate, that is, between 10.27% to a high of 14.02% (District schools' inspector, 2018). Specifically, the learners' pass rates have been generally low as reflected in Table 2.1, raising concerns from educational stakeholders.

Table 1: Percentage Pass Rate of Low Performing Secondary Schools in Chitungwiza District: Oct/ Nov 2013-2017 Results

| | 2013 | 2014 | 2015 | 2016 | 2017 | AVERAGE |
|----------|--------|--------|--------|--------|--------|---------|
| School A | 25.40% | 12.32% | 7.29% | 13.48% | 11.63% | 14.02% |
| School B | 9.60% | 5.60% | 11.92% | 14.63% | 14.47% | 11.24% |
| School C | 15.91% | 9.77% | 9.56% | 11.62 | 8.66% | 11.10% |
| School D | 8.20% | 12.54% | 12.12% | 10.89% | 7.60% | 10.27% |

Source: District Schools Inspector 2017, Ministry of Primary and Secondary Education, Chitungwiza District: Harare Province.

The measurement of learners' academic performance continue to be a controversial topic among policymakers, measurement experts and educators (Elliot, 2005; Johnson, 2006). Noting with great concern and against the above background, the researcher was motivated to conduct the study in question.

Most studies (Bowles, 2017; Achoka, 2007; Odongo, 2016; Boit *et al.*, 2012; Onsomu *et al.*, 2006) are conducted outside Zimbabwe. They appear to lack context specificity. Also except for Bowles (2017), they are more than five years old. This implies that they may not be able to stand against the test of time. Firstly, the researcher began the review of related literature by giving Fuller's (2017) Pre-school, In-school and Leaving-school conceptual framework. According to

Miles and Huberman (1994), a conceptual framework is a visual or written product, one that “explains, either graphically or in narrative form, the main things to be

studied-the key factors, concepts, or variables-and the presumed relationships among them.”

Table 2: The Factors That Influence Learners’ Performance-

| CHILD FLOW: TIME 1 PRE-SCHOOL | TIME 2 IN-SCHOOL | TIME 3 LEAVING SCHOOL |
|--|---|---|
| Pre-school development -Health and Nutrition -Cognitive growth -Parents’ literacy and | 2. SCHOOL QUALITY -Material inputs -Teacher quality -Teacher practice and classroom organisation -School management and structure | 4. SCHOOL OUTCOMES -Literacy level and academic Achievement - Social skills |
| endorsement of schooling | 3. SOCIAL/ECONOMIC CONTEXT -The demand for child’s labour -Opportunity costs of attending school | |

Table 2.2 tries to conceptualize how the factors, concepts or variables influence the learners’ performance at Ordinary Level. The conceptual theory sees the organisations as open systems which receive resources (inputs) and transform them into products and services (outputs) using internal, social and technological processes (throughputs).

The school as a social system receives inputs (learners, teachers, funds, technology, laws, school board policies, community values), transforms them into an educational programme and produces graduates (outputs) with certain social norms and skills. Simkins cited in Adeyemi (2008) expresses that the components of the education system can be represented in the input – process – output model. He goes on arguing that the education system is a productive system that has inputs. The outputs are generally defined as terms of learners’ test scores which denote academic achievement (Worthington, 2001).

According to Wobmann and Schutz (2004), learner achievement is produced by several inputs in the education process. Such inputs include class size, availability of teaching and learning materials and teacher characteristics. The teacher as an input is the principal factor in education provision and that affects the quality of education in a significant way. The personal characteristics of the individual teacher include academic qualifications, pedagogical training, content training, aptitude and years of service/experience. A teacher brings these characteristics to class to facilitate the learning process. The extent to which other inputs can improve the quality of education is directly related to the extent to which teachers effectively use the inputs to improve the teaching and learning process. Open systems export their products to the external environment and those outputs usually become inputs of other organizations. After acquiring the necessary skills, attitudes and knowledge, our secondary school

graduates are supposed to join institutions of higher learning, tertiary education or employment.

The production function model highlights the four main components as the inputs, processes, outputs and outcomes. Inputs have been reviewed as the resources, for example, learners, teachers, facilities and finance. They are transformed into outputs during processing in the second group of variables. Outputs are direct and immediate effects of the educational process whereas outcomes refer to the long – term effects of the educational outputs which are realised in the interaction of the educational output with the social environment.

Secondly, the researcher was guided by the theoretical framework of Ellis (2009), which is, Constructivism. Constructivism, according to Ellis (2009), is a theory of learning founded on the principle that people construct their own understanding and knowledge of the world through experiencing things and reflecting on those experiences. Constructivist learning theory originates from the work of cognitive theorists which are based on the belief that learning occurs as learners are actively involved in a process of meaningful construction of knowledge as opposed to passively receiving knowledge. Through interaction with the physical situations, or concrete objects, a child’s physical experience accumulates and he/she is able to conceptualize, think creatively and logically. According to the theory in question, learners are the makers of knowledge and meaning. The proponents of constructivism state that knowledge is constructed by people and does not exist on human mind. This then reveals that learners are not passive receivers of transferred knowledge. This means that learners construct knowledge as they cognitively create meaning of their own environment. Therefore the school environment should be educational to learners. There should be material resources in schools, there should be adequate infrastructural resources such as classrooms,

libraries with relevant books, just to mention a few and knowledgeable human resources, for example, teachers and the non-teaching staff like librarians in order for learning to become fruitful resulting to excellent learner-performances.

Another constructivist theorist is Brunner (1966) who advances that learning is an active process in which learner's constructed new ideas or concepts based upon their current/past knowledge. The learner selects and transforms information, constructs hypotheses, and make decisions, relying on a cognitive structure to do so. Cognitive structure (schema, mental models) provides meaning and organisation to experiences and allows the individual to "go beyond the information given". As far as instruction is concerned, the instructor should try and encourage learners to discover principles by themselves. The instructor and the learner should engage in an active dialogue (like Socratic learning). The task of the instructor is to translate information to be learned into a format appropriate to the learner's current state of understanding. Curriculum should be organised in a spiral manner so that the learners continually build upon what they have already learned.

Thirdly, a thematic approach was used in the literature using the theme derived from the research question. Fourthly, empirical studies on the strategies to be employed by school's administrations at 'O' Level public examinations in secondary schools were examined to a reasonable depth.

Related literature came up with strategies which could be used to improve learner performance at 'O' Level public examinations in secondary schools. Mbugua *et al.* (2012) in Kenya came up with strategies to improve achievement in Mathematics which are staffing, teaching and learning materials, curriculum, motivation and attitude and fees and levies.

According to Mji & Makgato (2006), learners are bound to fail if they lack motivation and interest, lack proficiency in the language of instruction and lack problem solving techniques or proper learning styles. It is necessary to motivate learners.

Colfalter *et al.* (2006) have found that a significant difference existed in the mean performance of learners in schools staffed with qualified teachers and those schools staffed with unqualified teachers. There is need to significantly check on staffing and to engage teachers with relevant qualifications to the subject(s) to be taught to the learners. Chirume and Chikasha (2014) acknowledge in their Zimbabwean research study that school learners come to work in companies having book knowledge but no real-life skills. This can be viewed as a point impacting negatively on the curriculum and the assessment techniques. It is pointed out that employees who hold good Ordinary Level Mathematics passes

produce better results at work than those who failed Mathematics. Effective and efficient management of curriculum and instruction in educational institutions are the basic prerequisite for stability and improvement of academic performance (Wanjala & Anyango, 2015).

According to Wenglinisky (2002), textbooks are a major input for academic performance. The view is shared by Fuller (2017) who observes that availability of and quality of textbooks in a secondary school is strongly related to achievement among children from lower income families especially those in rural boarding schools. According to Munda *et al.* (2000), physical facilities contribute positively to learner academic performance. The availability and adequacy of teaching and learning materials determine the educational system's efficiency. Textbooks, charts, maps, audio-visual and electronic instructional materials such as radio, tape recorder, television and video tape recorder, paper supplies and writing materials such as pens, chalk, eraser, exercise books, crayon, drawing books, pencil, ruler, the internet, and other resource materials are the basic tools for effective teaching and learning. The shortage of stated materials impact negatively to the teaching and learning process leading to low academic performance of learners. Ebhohimen (2017) claims that when resources such as textbooks, supplementary readers and equipment are made available in both quantity and quality, learners' academic performance is enhanced.

Many schools do not have libraries, according to Muwumba (2014). What institutions refer to as library is a small store room (Muwumba, 2014). It is also noted that learner to computer ratio is proportionally high in all institutions. Moreover, only few computers could access internet. Muwumba (2014) notes that inadequate school resources are denoted by low examination results, probably lack of libraries and inadequate computers may have contributed as well.

All the learning should be learner-centred and not teacher-centred. Lecture method is ineffective in that it turns the learners into passive participants in the learning process. However, despite the disadvantage, lecture method is useful in covering large content (Wabwile, 2007). The school's administrations should sensitise the local community to discard beliefs and practices that prohibit learners' effective participation in learning.

Nyaumwe (2004) finds out that some of the methods teachers use to teach Mathematics do not help learners develop conceptual understanding of Mathematics, hence the high failure rate in the subject in Zimbabwe. According to Silva *et al.* (2006), learners are bound to fail Mathematics if teachers' academic preparedness (content knowledge), years of teaching experience, attitude, teaching styles, and beliefs are not in order. Mji and Makgati (2006) agree that learners fail

Mathematics if they lack motivation and interest, lack proficiency in the language of instruction and lack problem solving techniques. Chirume and Chikasha (2014) agree that teachers who lack content and pedagogical skills also have their blame in contributing to poor academic performance in Zimbabwean secondary schools.

By involving the learners, it means how much time, energy and effort learners can be devoted to the learning process (Mthethwa, 2011). On time management, Magati, Bosire and Ogeta (2015) attribute time wastage to regular sending of learners back home due to non-payment of school fees, teachers' lateness in attending lessons and lack of lesson recovery of time spent by the learners on co-curricular activities. Loss of time for learning impact heavily on syllabus coverage. Failure to cover the syllabus results in low academic attainment.

Learners should set goals and pursue them as they are referred to by educators as learner's academic ambition (Quaglia & Cobb, 1996). Certainly, academic ambition could influence learners' learning, preparation for life choices, academic motivation, and achievement. The learners should set their academic ambition to improve on academic performance. Pintrich (2004) finds effort to be the only director predictor of learning outcomes amongst all general strategies. There is need to instil reading culture in learners. Assignments have been cited as a critical ingredient in the teaching and learning process as they serve as a diagnostic tool for teaching and learning process (Oredein & Oloyede, 2007). The study finds that the number of assignments that a teacher gives to learners, teacher ensuring that learners complete the assignments and timely marking of the assignments significantly affect academic achievement.

The lack of refresher courses contributes to low academic performance. Staff development is critical in helping teachers to implement educational reforms. Nyagura and Reece (2003) discover that there is minimum effort directed at school, district, and provincial staff development activities for secondary school teachers to raise the quality of instruction which in turn leads to higher learner achievement.

The quality assurance and standard are responsible for the control of the quality of education at all levels throughout an education system (Doherty, 2008). This is achieved through inspection, guidance, and advice to all schools.

Statement of the problem

Secondary school education is expected to enhance economic growth of individuals and society. The Government and parents heavily invest in education. However, the learners' performance at Ordinary Level examinations as evidenced in Table 1.1

is disappointing. High failure rate may lead to a short supply of professionals (in business and agriculture). Failure rate below 40% becomes a pressing issue and therefore, this research study sought to establish strategies which school's administrations should employ in order to improve learner performance in Zimbabwean secondary schools.

Research question

The following research question guided the study:

What can the school's administrations do to improve learners' performance in 'O' Level public examinations in secondary schools?

METHODS AND PROCEDURES

The researcher used mixed methods methodology which entailed the pragmatism philosophy. Mixed methods were unavoidable since one wished to discover what worked. In that sense, pragmatism rejects a position between the two opposing viewpoints (Denscombe, 2008). The use of the paradigm in the study gives room for the data to be probed, allowing corroboration and triangulation to be practised, richer data to be gathered and new modes of thinking to merge where paradoxes between two individual data sources are found (Onwuegbuzie & Johnson, 2006).

Both quantitative and qualitative approaches are run simultaneously but independently in addressing the research question (Cohen, Manion & Morrison, 2013). The use of mixed methods methodology in the study enabled triangulation which sought convergence, corroboration, correspondence of results from different methods. Tables were used to present results.

The research study's population from which the sample was selected, consisted of all secondary school Heads, deputy Heads, Senior Masters/Women, Heads of Subject Departments (HODs), teachers, learners, parents, employers, schools' inspectors, and district schools' inspectors in Harare Metropolitan Province. To address the research question, the researcher decided to carry out the research study in Chitungwiza District only. The sample comprised of 6 secondary schools in Chitungwiza District secondary schools. The district in question was chosen because it had most of the schools being day institutions and records over the years reflected low achievement of the learners, especially in national examinations. It was found necessary to come up with strategies to be used by school's administrations in order to improve learner performance at 'O' Level. A total of 216 respondents and 5 participants inclusive was enough to draw inferences with some confidence that the sample reflected the characteristics of the entire population.

The sampling techniques used reflected the existence of the mixed methods methodology within the study. The researcher used expert sampling, a non-probability sampling, in order to glean knowledge from individuals who have the knowledge, experience and expertise in the field being studied (Cohen & Manion, 2011). The experts were district schools’ inspector, school Heads, deputy Heads, Senior Masters/Women, HODs and teachers.

Random sampling is used so that each person in the sample schools has an equal chance of being selected (Leedy & Ormrod, 2005). In this study, random sampling was used. Probabilistic sampling which involved random numbers table was employed. The secondary schools that fell on numbers 1, 3, 5, 7, 9 and 11 were selected for the study. School Heads, deputy Heads, senior masters/women and HODs from those schools automatically became part of the sample.

The major instruments used were questionnaires and interviews. Semi-structured interviews allowed deep engagement and interaction with respondents and key informants on the topic in question. An observation guide was used to generate data from learners who were child-headed families. Document analysis guide was used to gather data on the background information and insights about strategies to be used to learner performance at ‘O’ Level public

examinations in secondary schools. Data gathered were analysed using thematic analysis. The instruments were used to achieve both data and method triangulation. More than one research instrument is used to ensure validity and reliability (Hakim, 2004)

FINDINGS AND DISCUSSION

The main objective of the study was to establish strategies which school’s administrations should use to improve learner performance at ‘O’ Level public examinations in Zimbabwean secondary schools.

The strategies to improve learner performance at ‘O’ Level public examinations in secondary schools were discussed under teaching and learning resources, supervision, motivation of both teachers and learners, class size, staff development/in-service courses, leadership styles, Form 1 recruitment, teaching methodologies, total engagement of learners, vacation school, fees and levy payment, performance lag address programme, revisiting Ministry policies, staffing and provision of technological equipment. Since there are many strategies in question, it would be proper to discuss some of them. In Table 4.1 on suggestions to improve ‘O’ Level results, the researcher came up with a total of 882 responses because one respondent could write down as many suggestions as was possible.

Table 3: Distribution of respondents on suggestions to improve ‘O’ Level results-

| RESPONSES | N | % |
|--|-----|------|
| Provision of adequate educational resources | 86 | 9.8 |
| Instil discipline in learners | 121 | 13.7 |
| Parents to monitor their children | 74 | 8.4 |
| Provision of guidance and counselling | 48 | 5.4 |
| Reduction of teacher-learner ratio | 60 | 6.8 |
| Increase the number of specialist rooms | 32 | 3.6 |
| Make use of educational media in teaching and learning | 110 | 12.5 |
| Motivation of teachers and learners | 80 | 9.1 |
| Provision of staff development/in-service sessions | 55 | 6.2 |
| Introduce study periods especially to public examination classes | 63 | 7.1 |
| Increase of supervision by school heads, deputy heads and HODs | 47 | 5.3 |
| Provision of technological equipment | 106 | 12.0 |

On provision of adequate educational resources, 86(9.8%) respondents suggested that they were very significant towards academic performance. The same was echoed by interviewees. According to Okongo,Ngao, Rop & Wesonga (2015), the availability and adequacy of teaching and learning resources determine the educational system’s efficiency. Ebhohimen (2017) & Fuller (2017) claim that teaching and learning resources enhance learners’ academic performance.

In the questionnaire and in the interview, it was agreed that technology had an impact on learner performance. There was need to go for technology. Computers could be acquired and use internet to get

information. The schools should create website and use ICT gadgets like cello phones to visit scholastic websites. The websites should have materials uploaded for each learning area as per level. Websites could be accessed by learners using cello phones while at home. Encouragement of learners to do research using technology was necessary. Due to globalisation, learners could google and acquire knowledge for themselves. Learning could become easier with the use of technological equipment. The learners with adequate technological devices in question would improve in academic achievement.

Ekundayo (2012) supports the notion that learning experiences are beneficial when there are

adequate quantity and quality of infrastructural resources. The same researcher states that unattractive school buildings, crowded classrooms, non-availability of playing ground and surroundings that have no aesthetic beauty can contribute to low academic performance. Bowles (2017) suggests that the physical facilities of the school such as science laboratories and libraries appear to be significantly related to achievement. In viewing literature on the availability of textbooks, supplementary readers, equipment and funds, Coleman (2013) concludes that learners' academic achievement is related to quantity instructional facilities in the school.

There were 121(13.7%) research study respondents in the questionnaire who indicated that instil of discipline was quite necessary in the improvement of academic performance. It could be argued that discipline is the backbone of success. During observation and in the semi-structured interviews, it was noted that in as far as schoolwork was concerned, many children from child-headed families were hardly punctual to school activities. They were assigned homework by their subject teachers and the work was hardly done. The learners in question frequently absented themselves from school and their parents were not aware of such behaviours. The impact of being absent from school negatively affected learners' academic performance.

In the questionnaire, in the semi-interviews and in the document analysis, supervision was supposed to be significantly stepped up. There was inadequate supervision in schools. Sometimes school's administrations were interrupted by parents/guardians or visitors during lesson observations and left before the end of the lessons. They had too many responsibilities. Document analysis showed that exercise book inspections were inadequate. The quality assurance and standard are responsible for the control of the quality of education at all levels throughout an education system (Doherty, 2008). This is achieved through inspection, guidance, and advice to all schools. Such inspection included visits to institutions for checking on facilities, equipment, administration, and actual teaching by individual members of staff. In related literature, supervision seems to influence learner achievement (Mukokoromba, 2015).

Table 4.1 shows that 80(9.1%) respondents mentioned motivation of teachers and learners in order to improve academic performance. The teachers who score a high percentage pass rate in schools need motivation. Just mentioning about it at a combined assembly could really motivate a teacher who would have done well. A combined assembly is where two or more sessions gather for important announcements. Praising was just enough to motivate a teacher. The teachers could be recommended for promotion. The teachers could be given incentives. The learners could

be motivated by being given prizes at speech and prize giving functions. It was also mentioned in semi-structured interviews. In the document analysis, there were reports indicating incentives which were given to some teachers and learners who had excelled in some disciplines including learner performance.

Due to hyper-inflation in Zimbabwe, the construction of schools was at a low ebb. Therefore teacher-learner ratio was forced to go up. All the secondary schools had not less than fifty learners per class as evidenced in mark books and attendance registers. The academic performance was affected because of high teacher-learner ratio. The same was mentioned in the questionnaires and interviews. One of the interviewees who was not happy with 'O' Level results cited the following reasons:

Class size is quite alarming. Each class has 50 or more learners and individual differences are difficult to cater. Discipline in the school leaves a lot to be desired. Lack of motivation for both teachers and learners and lack of time resources due to double sessions affect quality education.

According to Slavin (1993), an additional learner in class is sometimes found to have a positive effect, sometimes a negative effect and sometimes no effect at all on the average achievement of learners. There is highly significant relationship between learners-per- teacher and achievement (Heneveld, 1994). However, class size is purportedly not a significant influence on achievement (Hanushek, 2004; Burch, Theoharis, & Rauscher, 2010).

Haddad (2006) suggests that an increase in class size may not necessarily lead to a decrease in the level of learners' academic achievement. Likewise, a decrease in class size does not guarantee an improvement in the social environment of learning. What seems to be important is what the teacher does to with the opportunities provided by the size of the class. Haddad (2006) argues that increasing class size within reasonable limits may not necessarily result in a decrease in the level of learners' academic achievement. Perhaps class size may have a negative impact if the increase is so large that the teacher finds it hard to attend to individual differences.

In the questionnaire, there were 55(6.2%) of the respondents who suggested provision of staff development sessions and in-service courses to teachers in order for them to keep abreast with new knowledge, skills, norms and values necessary to the learners. The teachers should deliver correct content and learners would do well in academic performance. The same sentiments were echoed in the interviews. Nyagura and Reece (2003) discover that there is minimum effort directed at school, district, and provincial staff development activities for secondary school teachers to

raise the quality of instruction which in turn leads to higher learner achievement.

Some researchers argue that effective leadership is necessary for initiating and maintaining the improvement process in schools (Mendez-Morse, 1992; Leithwood & Jantzi, 1990; Mertz, 2010). The school Head is uniquely positioned to fill that role and certainly his/her support for school improvement is essential. Poor leadership is usually accompanied by declining standards in academic achievements, poor school facilities and low morale of both learners and teachers (Owens, 2014). Magati, Bosire, and Ogeta (2012) have found out in Kenya that poor school management style influences the academic performance of learners. This is in agreement with Abagi (2001) who says that a good management style is a key factor that influences learners' academic performance. The respondents agreed that lack of time management influenced learners' performance. It was the respondents in the questionnaire who agreed that good management positively influenced learners' performance. In semi-related interviews, one of the interviewees said the ability of the Head in organising learning situations in the school had an impact on learners' academic achievement. Head's management abilities have been shown to be significantly related to academic achievement (Fuller, 2017).

Fuller's (2017) findings indicate that the status and academic qualification of the heads may be related to management abilities. School Heads need to ensure that delegated tasks are carried out on time and in a proper manner. According to Wildsmith-Cromarty and Balfour (2019), school Heads in top performing schools spend more time on educational matters as compared to administrative issues and concerns and appraise the performance of teachers.

In the open-ended item of the questionnaire, quite several respondents indicated that secondary schools should enrol Form I learners with good Grade 7 passes to obtain high academic performance at Ordinary Level. The same was echoed in semi-structured interviews. The learner's mark at Grade 7 was responsible for academic performance when the learner entered in a secondary school. There was need to avoid enrolling learners with low Intelligent Quotient (IQ). According to Magnuson, Ruhm, & Waldfoegel (2007), kindergarten attendance seems to have a lasting impact on both verbal and mathematics achievement and on reading skills.

The teachers were urged to make use of a variety of teaching methodologies to capture different needs of all learners. It was mentioned in the open-ended questionnaire as one of the strategies to improve 'O' Level results. The stress should be on 'hands-on' methodologies. The activities could be frequent tests, adequate amount of written work, field works and

outdoor activities, panel discussions, projects, discovery methods, group work and other methods which created an enabling environment for the learners and ensured that individual differences were taken care of. The above sentiments were echoed by one of the interviewees who happened to be one of the HODs. All the learning should be learner-centred and not teacher-centred. Lecture method is ineffective in that it turns the learners into passive participants in the learning process. However, despite the disadvantage, lecture method is useful in covering large content (Wabwile, 2007). The school's administrations should sensitise the local community to discard beliefs and practices that prohibit learners' effective participation in learning which results in low performance.

Nyaumwe (2004) finds out that some of the methods teachers use to teach Mathematics do not help learners develop conceptual understanding of Mathematics, hence the high failure rate in the subject in Zimbabwe. According to Silva *et al.* (2006), learners are bound to fail Mathematics if teachers' academic preparedness (content knowledge), years of teaching experience, attitude, teaching styles, and beliefs are not in order. Mji and Makgati (2006) agree that learners fail Mathematics if they lack motivation and interest, lack proficiency in the language of instruction and lack problem solving techniques. Chirume and Chikasha (2014) agree that teachers who lack content and pedagogical skills also have their blame in contributing to poor academic performance in Zimbabwean secondary schools.

In the semi-structured interviews, the idea of total engagement of learners was mentioned. The same was echoed on one of the items in the open-ended questionnaire. As a way to improve academic achievement, learners should be totally engaged in learning. By involving the learners, it means how much time, energy and effort learners can be devoted to the learning process (Mthethwa, 2011). On time management, Magati, Bosire and Ogeta (2015) attribute time wastage to regular sending of learners back home due to non-payment of school fees, teachers' lateness in attending lessons and lack of lesson recovery of time spent by the learners on co-curricular activities. Loss of time for learning should impact heavily on syllabus coverage. Failure to cover the syllabus should result in low academic attainment.

However, in a nutshell, other strategies were: avoiding long list of debtors, making libraries functional by equipping them with reference books and adequate teacher salaries to meet regional standards. The list of strategies in question was endless. It was up to each school administration to select strategies which were appropriate to its school in order to improve academic performance.

CONCLUSIONS

In the light of the findings of this study, the following conclusions were made:

- There was high academic achievement if teaching and learning resources were adequate. Several schools did not have sufficient textbooks. The learners had to share textbooks in the ratio of 1:4. There were many textbooks of Education Transition Fund which were donated by UNICEF and Government some few years back, but many schools no longer had those textbooks.
- Data from the study revealed that supervision was not done as expected. Due to overwhelming evidence, it could be safely concluded that supervision was done below par since school's administrations were engaged in many duties including attending to visitors, parents, and guardians. It was noted during lesson observations that school Heads were sometimes interrupted by parents or visitors and they left before the end of the lessons resulting in no compilation of narrative reports as required by Teacher Professional Standards (TPS).
- It was concluded that there were misplaced teachers in schools whereby teachers taught learners subject(s) they did not major in while at teacher training colleges. One of the teacher's file under document analysis had information of a teacher who was trained to teach geography but was teaching science.
- Due to the rigid policy of the Ministry of Primary and Secondary Education, it was revealed that replacement of teachers on maternity leave and sick leave was not done. If the school development committee could not get funds to pay the teachers to be on replacement, those classes would go for three or so solid months without teachers.
- It came to the researcher's notice and concluded that there were some learners who had financial problems due to, for example, the death of both parents because of HIV/AIDS and Coronavirus pandemic. Now and again they were sent back home to collect fees and levies.
- As a conclusion, there were questionable behaviours noticed in some learners. Social media had done more harm than good when learners took time to look at pornography. Some girls practised child prostitution and other unscrupulous activities in beer halls in the community. Most of such girls were exposed to early marriages.
- It was concluded that teachers were supposed to make use of a variety of teaching methodologies to capture different needs of all learners. The stress should be on 'hands-on'

methodologies. The activities could be frequent tests, adequate amount of written work, field works and outdoor activities, panel discussions, projects, discovery methods, group work and other methods which created an enabling environment for the learners and ensured that individual differences were taken care of. All the learning should be learner-centred and not teacher-centred.

- It was concluded that there should be a total engagement of learners at the school. As a way to improve academic achievement, learners should be totally engaged in learning.
- As a conclusion, unattractive school buildings, crowded classrooms, non-availability of playing ground and surroundings that had no aesthetic beauty could contribute to low academic performance. The physical facilities of the school such as science laboratories and libraries appeared to be significantly related to achievement.

Recommendations

The following recommendations were derived from the findings and conclusions made above:

- The school administrations should ensure that there were adequate teaching and learning resources at their respective schools. This could be done through charging fees and levies which commensurate the requirements of different schools. The learners who would have lost textbooks, should immediately replace them without delay. There was need to keep an inventory of material resources such as library books, science laboratory equipment and computer laboratory equipment. If the schools could provide adequate teaching and learning resources, the learners' academic achievement would be enhanced.
- In order to increase the number of supervision, it is recommended that every secondary school should have instructional supervisors in different subject departments like science, humanities, languages, practical and technical subjects to oversee the instructional activities and processes in the school. The instructional supervisors should specifically concentrate on guiding teachers on teaching methodologies and other related areas.
- The study recommends that misplaced teachers should be placed in the subjects they trained in while they were in training colleges. Heads should check on staffing and to engage teachers with relevant qualifications to the subject(s) to be taught to the learners. If the school Head is given a teacher with the qualification not required in the school, the school Head should return the teacher to the Public Service Commission for redeployment elsewhere.

- The Ministry of Primary and Secondary Education should revisit some of its policies. It should pay for temporary teachers who would have replaced teachers on maternity leave and sick leave. The learners should not go for 3 or so solid months without a teacher.
- On learners who had financial problems due to, for example, parents who passed on because of HIV/AIDS and Coronavirus pandemic, such learners should be recommended to organisations which could assist the learners financially such as Red Cross, Higher Life Foundation, SOS and Mavambo. They could even be recommended to Basic Education Assistance Module (BEAM). The learners in question needed great financial assistance for them to attend school properly.
- It is recommended that schools should always maintain discipline. The disciplinary committee in the school should take strong measures against learners who misbehave even out of school, for example, visiting beer halls and practising prostitution. At times it could be good to involve parents/guardians in as far as discipline is concerned. Everybody should be on duty in disciplinary matters and not to leave it to a few individuals. The country is eager to produce good citizens.
- As a recommendation, the teachers should be urged to make use of a variety of teaching methodologies to capture different needs of all learners. The 'hands-on' methodologies should be the order of the day in teaching and learning.
- The teachers should engage learners to the full. The learners should feel that school days were well spent. Different activities could be frequent tests, adequate amount of written work, field works and outdoor activities, debates, panel discussions, projects, discovery methods, group work and other methods which create an enabling environment for the learners.
- School administrators should erect attractive school buildings, spacious classrooms, libraries and specialist rooms that had aesthetic beauty which could contribute to high academic performance.

REFERENCES

1. Abagi, O. (1997). *Status of education in Kenya: Indicators for planning and policy formulation*. Institute of Policy Analysis and Research.
2. Achoka, J. (2007). In search of remedy to secondary school dropout pandemic in Kenya: Role of the Principal. *Educational Research and Review*, 2(7), 236–244.

3. Adeyemi, B. A. (2008). Effects of cooperative learning and problem-solving strategies on junior secondary school students' achievement in social studies. *Electronic Journal of Research in Educational Psychology*, 6(3), 691-708.
4. Atieno, M. E., & Simatwa, E. M. W. (2012). Challenges faced by newly appointed principals in the management of public secondary schools in Bondo district, Kenya: An analytical study. *Educational Research*, 3(4), 388–401.
5. Banks, J. A., & Banks, C. A. (1997). *Multicultural education: Characteristics and goals*.
6. Boit, M., Njoki, A., & Chang'ach, J. K. (2012). The influence of examinations on the stated curriculum goals. *American International Journal of Contemporary Research*, 2(2), 179–182.
7. Bowles, S., Gintis, H., & Osborne, M. (2001). The determinants of earnings: A behavioral approach. *Journal of Economic Literature*, 39(4), 1137–1176.
8. Bowles, S., Loury, G., & Sethi, R. (2007). *Is equal opportunity enough? A theory of persistent group inequality* (Unpublished Manuscript). Barnard College, Columbia University.
9. Broh, B. A. (2002). Linking extracurricular programming to academic achievement: Who benefits and why? *Sociology of Education*, 69–95.
10. Bruner, J. S. (1996). *The culture of education*. Harvard University Press.
11. Chirume, S., & Chikasha, A. S. (2014). A critical analysis of the factors affecting achievement in secondary school mathematics in Zimbabwe: A case study of Gweru district. *Merit Research Journal of Education and Review*, 2(9), 194–202.
12. Christensen, L. B., Johnson, R. B., & Turner, L. A. (2014). *Research Methods, Design, and Analysis*. Retrieved from https://books.google.com.na/books?id=n_GIoAEACAAJ
13. Cohen, L, Manion, L., & Morrison, K. (2005). *Research methods in education*. London, UK: Routledge.
14. Cohen, L, Manion, L., & Morrison, K. (2011). *Planning educational research. Research Methods in Education*. New York: Routledge Editors.
15. Cohen, L. M., & Manion, L. & Morrison, K. (2001). *Research Methods in Education* (6th Ed.). Oxford: Routledge Falmer Publisher.
16. Cohen, L. M., & Manion, L. (1989). *Research Methods in Education*. New York: Routledge.

17. Cohen, Louis, Manion, L., & Morrison, K. (2013). *Research Methods in Education*. routledge.
18. Coleman, D., & Fraser, H. (2011). *Minds, bodies, machines, 1770-1930*. Springer.
19. Colfalter, C., Ladd, H., & Vidgor, J. (2006). *How and why do Teachers Credentials matter for students' achievement*. Mimeo Duke University.
20. Darling-Hammond, L. (2000). Teacher quality and student achievement. *Education Policy Analysis Archives*, 8, 1.
21. Darling-Hammond, L. (2016). Research on teaching and teacher education and its influences on policy and practice. *Educational Researcher*, 45(2), 83–91.
22. Darling-Hammond, L., Berry, B., & Thoreson, A. (2001). Does teacher certification matter? Evaluating the evidence. *Educational Evaluation and Policy Analysis*, 23(1), 57–77.
23. Denscombe, M. (2008). Communities of practice: A research paradigm for the mixed methods approach. *Journal of Mixed Methods Research*, 2(3), 270–283.
24. Desforges, C., & Abouchaar, A. (2003a). *The impact of parental involvement, parental support and family education on pupil achievement and adjustment: A literature review* (Vol. 433). DfES London.
25. Desforges, C., & Abouchaar, A. (2003b). *The impact of parental involvement, parental support and family education on pupil achievement and adjustment*. London: DfES.
26. Doherty, G. D. (2008). On quality in education. *Quality Assurance in Education*.
27. Douglas, J. D. (2015). *Social meanings of suicide*. Princeton University Press.
28. Douglas, J. W. B., & Ross, J. M. (1964). Age of puberty related to educational ability, attainment and school leaving age. *Journal of Child Psychology and Psychiatry*, 5(3-4), 185–196.
29. Douglas, R. S. (1998). *The Home and the School: A Study of Ability and Attainment in the Primary*. London: Hagibeen and Kee Ltd.
30. Durojaiye, M. O. A. (1976). *A new introduction to educational psychology*. Evans.
31. Ebhohimen, Ep. (1988). School resource inputs and academic performance in a Nigerian state: a case of English language instruction. *Educational Research*, 30(3), 211–218.
32. Ekundayo, H. T. (2012). School facilities as correlates of students' achievement in the affective and psychomotor domains of learning. *European Scientific Journal*, 8(6), 208–215.
33. Elliot, A. J. (2005). A Conceptual History of the Achievement Goal Construct. *Handbook of Competence and Motivation*, 16, 52–72.
34. Ellis, R. (2009). Corrective feedback and teacher development. *L2 Journal*, 1(1).
35. Fraser, B. J. (2012). *Classroom environment* (Vol. 234). Routledge.
36. Fraser, K. P. (1979). *Supervisory behavior and teacher satisfaction*. Montana State University-Bozeman, College of Education, Health & Human ...
37. Fuller, B. (2017) What Investments raise achievement in the Third World? *Improving Educational Quality: A Global Perspective*, (35), 17.
38. Garira, E. (2015). *The development of a school self-evaluation framework for classroom quality in Zimbabwean primary schools*. University of Pretoria.
39. Goodman, A., & Gregg, P. (2010). *Poorer children's educational attainment: How important are attitudes and behaviour?* Joseph Rowntree Foundation York.
40. Gutman, L., & Akerman, R. (2008). *Determinants of aspirations [wider benefits of learning research report no. 27]*. Centre for Research on the Wider Benefits of Learning, Institute of ...
41. Haddad, W. (1978). *Educational effects of class size*. The World Bank.
42. Haddad, W. D. (1978). *Educational Effects of Class Size*. World Bank Staff Working Paper No. 280.
43. Hakim, O. B. (2004, July 6). *Instructional system grouping student terminals*. Google Patents.
44. Hanushek, E. A. (1996). School resources and student performance. *Does Money Matter? The Effect of School Resources on Student Achievement and Adult Success*, 43–73.
45. Hanushek, E. A. (1997). Assessing the effects of school resources on student performance: An update. *Educational Evaluation and Policy Analysis*, 19(2), 141–164.
46. Hanushek, E. A. (2003). The failure of input-based schooling policies. *The Economic Journal*, 113(485), F64–F98.
47. Hanushek, E. A., Kain, J. F., & Rivkin, S. G. (2004). Why public schools lose teachers. *Journal of Human Resources*, 39(2), 326–354.
48. Harris, B. M., Bessent, W., & McIntyre, K. E. (1969). *In service education: A guide to better practice*. Prentice-Hall.
49. Harrison, J. R., Bunford, N., Evans, S. W., & Owens, J. S. (2013). Educational accommodations for students with behavioral challenges: A systematic review of the literature. *Review of Educational Research*, 83(4), 551–597.
50. Hedge, T. (2001). *Teaching and learning in the language classroom* (Vol. 106). Oxford university press Oxford, England.

51. Heneveld, W. (1994). *Planning and Monitoring the Quality of Primary Education in Sub-Saharan Africa*. AFTHR Technical Note No. 14.
52. Herald. (1991, July 15). Zimbabwe national budget for education. *The Herald Newspaper*.
53. Howie, S. J. (2003). Language and other background factors affecting secondary pupils' performance in Mathematics in South Africa. *African Journal of Research in Mathematics, Science and Technology Education*, 7(1), 1–20.
54. Johnson, V. E. (2006). *Grade inflation: A crisis in college education*. Springer Science & Business Media.
55. Kimani, G. N., Kara, A. M., & Njagi, L. W. (2013). *Teacher Factors Influencing Students'academic Achievement In Secondary Schools In Nyandarua County, Kenya*.
56. Kothari, C. (2004). Research methodology: methods and techniques. In *Vasa*. <https://doi.org/http://196.29.172.66:8080/jspui/bitstream/123456789/2574/1/Research%20Methodology.pdf>
57. Leedy, P. D., & Ormrod, J. E. (2005). *Practical research*. Pearson Custom.
58. Leithwood, K., & Jantzi, D. (1990). Transformational leadership: How principals can help reform school cultures. *School Effectiveness and School Improvement*, 1(4), 249–280.
59. Lincoln, Y. S., & Denzin, N. K. (2003). *Turning points in qualitative research: Tying knots in a handkerchief* (Vol. 2). Rowman Altamira.
60. Lonsdale, M. (2003). *Impact of School Libraries on Student Achievement: A Review of the Research*. ERIC.
61. Lopez, E. M., Gallimore, R., Garnier, H., & Reese, L. (2007). Preschool antecedents of mathematics achievement of Latinos: The influence of family resources, early literacy experiences, and preschool attendance. *Hispanic Journal of Behavioral Sciences*, 29(4), 456–471.
62. Lyons, J. W. (1990). Examining the validity of basic assumptions and beliefs. *New Futures for Student Affairs*, 22–40.
63. Magati, N. W., Bosire, K., & Ogeta, N. (2015). Factors Affecting Academic Performance in day Secondary Schools in Borabu District in Kenya. *International Journal of Current Business and Social Sciences*, 1(3), 19–31.
64. Magnuson, K. A., Ruhm, C., & Waldfogel, J. (2007). Does prekindergarten improve school preparation and performance?. *Economics of Education Review*, 26(1), 33–51.
65. Mendez-Morse, S. (1992). *Leadership Characteristics That Facilitate School Change*.
66. Mertz, N. T. (2010). Teacher selection and school leader effects. *Journal of School Leadership*, 20(2), 184–207.
67. Mji, A., & Makgato, M. (2006). Factors associated with high school learners' poor performance: a spotlight on mathematics and physical science. *South African Journal of Education*, 26(2), 253–266.
68. Morse, J. M. (2011). What is qualitative health Research. *The SAGE Handbook of Qualitative Research*, 4, 401–414.
69. Mthethwa, D. K. (2011). *Mathematics is reasoning*. New York: Longman.
70. Munda, S. W., Tanui, E. K., & Kaberia, L. (2000). Relationship between Selected educational Facilities and Students Academic Performance in Secondary Schools in Bungoma District, Kenya. *Kenya Journal of Education Planning, Economics and Management*.
71. Musgrave, C. B. (2000). Environmental factors affecting attitude towards science and mathematics. *Journal of Educational Psychology*, 91(1), 382–394.
72. Muwumba, M. A. (2014). *The challenges of assessing competencies and its implications on performance in national examinations in Uganda*. Tech. rep., International Association for Educational Assessment Conference ...
73. Nkoma, E., & Mapfumo, J. (2013). *Urban school location and performance: A comparison of high achievers in former P1 and P2 schools in Zimbabwe*.
74. Nyagura, L. M., & Reece, J. L. (1989). The school head as an instructional leader in Zimbabwe secondary schools. *Zimbabwe Journal of Educational Research*, 1(3), 304–341.
75. Nyaumwe, L. (2004). The Impact of Full Time Student Teaching on Preservice Teachers' Conceptions of Mathematics Teaching and Learning. *Mathematics Teacher Education and Development*, 6, 19–32.
76. Obodo, B. (2012). *School curriculum*. New Jersey: Princeton University Press.
77. Odongo, A. A., Aloka, P. J. O., & Raburu, P. (2016). Influence of Parenting Styles on the Adolescent Students' Academic Achievement in Kenyan Day Secondary Schools. *Journal of Education and Practice*, 7(15), 101–108.
78. Okongo, R. B., Ngao, G., Rop, N. K., & Wesonga, J. N. (2015). *Effect of Availability of Teaching and Learning Resources on the Implementation of Inclusive Education in Pre-School Centers in Nyamira North Sub-County, Nyamira County, Kenya*.
79. Onsomu, E. N., Muthaka, D., Ngware, M., & Kosimbei, G. (2006). Financing of secondary education in Kenya: Costs and options. *Kenya*

- Institute for Public Policy Research Analysis (KIPPRA) Discussion Paper*, 55.
80. Onwuegbuzie, A. J., & Johnson, R. B. (2006). The validity issue in mixed research. *Research in the Schools*, 13(1), 48–63.
 81. Oredein, A. O., & Oloyede, D. O. (2007). Supervision and Quality of Teaching Personnel Effects on Students' Academic Performance. *Educational Research and Reviews*, 2(3), 32–35.
 82. Orodho, J A. (2002). *Enhancing access and participation in secondary education among the poor and vulnerable through bursaries in Kenya*. A Consultancy Paper Submitted to the Institute of Policy Analysis and Research (IPAR) for Publication.
 83. Orodho, J. A. (2009). Elements of education and social science research methods. *Nairobi/Maseno*, 126–133.
 84. Owen, G. T. (2014). Qualitative methods in higher education policy analysis: Using interviews and document analysis. *The Qualitative Report*, 19(26), 1.
 85. Pettigrove, G. (2007). Ambitions. *Ethical Theory and Moral Practice*, 10(1), 53–68.
 86. Pintrich, P. R. (2000). Multiple goals, multiple pathways: The role of goal orientation in learning and achievement. *Journal of Educational Psychology*, 92(3), 544.
 87. Pintrich, P. R. (2004). A conceptual framework for assessing motivation and self-regulated learning in college students. *Educational Psychology Review*, 16(4), 385–407.
 88. Polkinghorne, D. E. (2005). Language and meaning: Data collection in qualitative research. *Journal of Counseling Psychology*, 52(2), 137.
 89. Pring, R., Hayward, G., Hodgson, A., Johnson, J., Keep, E., Oancea, A., ... Wilde, S. (2012). *Education for All: the future of education and training for 14-19 year-olds*. Routledge.
 90. Quaglia, R. J., & Cobb, C. D. (1996). Toward a theory of student aspirations. *Journal of Research in Rural Education*, 12(3), 127–132.
 91. Schools of Bole Sub-City, Addis Ababa. Addis Ababa University.
 92. Schunk, D. H., & Zimmerman, B. J. (1997). Developing self-efficacious readers and writers: The role of social and self-regulatory processes. *Reading Engagement: Motivating Readers through Integrated Instruction*, 34, 50.
 93. Sergiovanni, T. J. (2005). The virtues of leadership. *The Educational Forum*, 69(2), 112–123. Taylor & Francis.
 94. Silva, D. L., Tadeo, M. C., Reyes, C. R., & Dadigan, R. M. (2006). Factors associated with non-performing Filipino students in Mathematics: A vision of student's cognitive and behavior management. *The Proceedings of the 2nd IMT-GT Regional Conference of Mathematics, Statistics and Applications, University Sains Malaysia, Penang*, 2–3.
 95. Slavin, R. E. (1993). Ability grouping in the middle grades: Achievement effects and alternatives. *The Elementary School Journal*, 93(5), 535–552.
 96. Smith, C. (1991). *Overview of Youth Recreation Programs in the United States*. Macmillan New York.
 97. Teixeira, J., Amoroso, J., & Gresham, J. (2017). Why education infrastructure matters for learning (Blog Post). *World Bank*.
 98. Tella, A., & Tella, A. (2003). Parental involvement, home background, and school environment as determinant of academic achievement of secondary school students in Osun State, Nigeria. *African Journal of Cross-Cultural Psychology and Sport Facilitation*, 5(2), 42–48.
 99. Tsime, H. (2019). *An investigation into the challenges faced in the use of the calculator in the teaching and learning of mathematics at Ordinary Level in Mbire District*. BUSE.
 100. UNDP. (2013). *Public spending on education*.
 101. UNESCO. (2005). *Decade of education for sustainable development: 2005-2014*. Draft International Implementation Scheme.
 102. Wabwile, J. (2007). *Mathematic and Sciences Teacher Perception and Expectation of SMASSE In-service Training* (M. Phil thesis unpublished). A case of Trans-Nzoia district
 103. Wanjala, G., & Anyango, P. O. (2015). The Relationship between Principals' Management of Curriculum and KCSE Performance in Selected Secondary Schools in Migori District, Kenya. *Weber Educational Research & Instructional Studies*.
 104. Weber, C. (2013). *International Relations Theory: A Critical Introduction*. Routledge.
 105. Wenglinsky, H. (2002). The link between teacher classroom practices and student academic performance. *Education Policy Analysis Archives*, 10, 12.
 106. Wobmann, L., & Schutz, G. (2004). European perspective. *Economics of Education in Europe*.
 107. World Bank, T. (2018). World Bank Open data. World Bank.
 108. Worthington, A. C. (2001). An empirical survey of frontier efficiency measurement techniques in education. *Education Economics*, 9(3), 245–268.
 109. Zachariah, K. M., Komen, K., George, M. M., & George, R. N. (2012). Factors contributing to students' poor performance in mathematics at Kenya Certificate of Secondary Education in Kenya: A case of Baringo County, Kenya.

- American International Journal of Contemporary Research*, 2(6), 87-91.
110. Zimmerman, B. J., & Risemberg, R. (1997). Self-regulatory dimensions of academic learning and motivation. *In Handbook of academic learning* (pp. 105–125). Elsevier.
111. Zvobgo, E. J. M. (1996). An agenda for democracy, peace and sustainable development in the SADC region. *Legal Forum*, 8(1), 13–17.