



Change Management and Implementation of Education Innovation in Public Secondary Schools in Rivers State

Nweke, Emmanuel Onyekachi, Austin, Ikubor Sokpuwu & Amadi, George Achinike

Department of Educational Management

Ignatius Ajuru University of Education, Rumuolumeni, Port Harcourt, Nigeria

Email: emy1242000@yahoo.com

ABSTRACT

The study examined School Change management And Implementation of Education Innovations in Public Secondary Schools in Rivers State. . The instrument used in carrying out the study was questionnaire. A total of 380 copies of the questionnaire were distributed to teachers in secondary schools in Rivers State, 350 were duly returned and completed. The Study based its analysis on the returned 350 questionnaires. Five research questions and Fiver hypotheses were raised upon which 15 correlational questionnaire items were generated in the research questionnaire to obtain responses from the respondents. The statistical of ANOVA statistical tool was used to test the hypothesis, using the SPSS Version 23. The research questions were answered using mean and standard deviation. The testing of the five hypotheses showed non- significant in hypothesis 1 and significant in the other four research hypotheses thereby annulling the raised null hypotheses. Based on the findings, recommendations were reached encouraging all stake-holders especially the principals captured in the study to brace up to the modern challenge of carrying the teachers along in innovation decisions and its effective implementations.

Key Words: School, Change Management, Implementation, Education, Innovations, Public Secondary schools, Rivers State.

INTRODUCTION

To build the employability of school leavers, this study will see approaches to improve strategies, embracing technological development in substance conveyance, tutoring and hands on preparation for new teachers, educational plan execution to articulate future needs of the general learning public. Educational planning that the investigation will likewise analyze the job of school initiative in organizing expressed objectives of the teaching framework in schools in Rivers State. On a very basic level, the school as an educational foundation works as a transmitter of information and scholastic aptitudes like perusing, composing and numeracy, notwithstanding that, the teaching association instills different capacities alluded to as show elements of training. Those are planned, for example, adapting new data, coexisting with others which are by and large alluded to as socialization and transmission of social standards. The school administrator as the leader of the school is at the center of the group that ought to guarantee the accomplishment of the objectives of the teaching/foundations/authority in each association decides its adequacy, the assignment of the school initiative in advancement is especially testing in the 21st century and past this is a direct result of the presentation of PC and different types of data and interchanges innovation (ICT) can change the manner in which kids learn and teachers educate. There is requirement for the school managers to realize changes occurring in instruction both broadly and universal. For example, the change from TKT strategy for teaching method to the ASEI



technique. The TKT strategy which means encouraging information test is more instructor focused while the ASEI technique (which is abbreviation for Activity-Student Experiment Improvisation involves evoking learning structure the students, this strategy advocates that the educator goes about as a manual for the learning procedure. The ASEI technique is basically understudy focused and is accepted to create proactive personalities. Once more, in view of the utilization of ICT in schools and different organizations, the head should be side by side of e-realizing which is PC base in nature. That empower understudies learn without anyone else by logging data identified with subjects of their advantage. Schools have moved away from writing slates to slides and some are rapidly moving to PC based learning in which the instructor educates utilizing the PC while each understudy signs on through his/her PC. Teaching and learning in the 21st century is done ongoing by means of the web utilizing electronic contraption task and part obviously work could toe done through whatsapp and different stages that guide mixed learning and the school authority ought to have the option to tackle these stages to enhance the objectives of the school. There is considerable writing which recognizes the school head as a key factor in achieving fruitful change in school (Fullan 1991, 1996: Hall and Hord 2001). While exploring the execution of training changes throughout the most recent 20 years, specialists found that a significant factor in effective change was the main who bolstered and supported those actualizing change (Fullan, 1991: Hall&Hord, 1987, 2001: Hallinger and Fleck, 1996). All cited in Schiller, J. (2002). Moreover, Schiller stressed that it was found that the behaviors that principals exhibited while working with teachers who were successfully implementing an educational change or innovation often provided the intervention that increased the potential for the success of a change or allowed it to fail.

In the context of the 21st century Society, the principal should strive for result by means of performance contracting, target setting, good class management, balanced appraisal paradigm and a good dose of self-motivating strategies to meet the demands of the 21st century society, it is important therefore, that education managers should adopt, transformational change management as a way of enabling managers to respond to demands for reforms, innovations and to attain desired learning outcomes (Leithwood et al, 1999). The Society having set the goals requires the school head in this instance, the principal to be abreast of the needs and be armed with the technical knowledge to implement the curriculum that will ultimately lead to the advancement of such goals. The principal himself should not be averse to innovations, in fact to be successful at his job he needs to be a master of innovations. For the principal to play a leading role in the implementation of innovations in education he needs to be: innovative himself, Open minded, able to provide inspiration and motivate the colleagues/ subordinates under him, focus on the needs of the learners which is the organization's raison d'etre. Provide intellectual stimulation and influence creative thinking, and imaginative and proactive reasoning in the workforce, leading by example, communicate and reinforce the organizations goals and demonstrate enthusiastic commitment to the vision of the school organization; such a



principal does not need change management style that is cast in. iron rather he needs to be a situational leader knowing what to do at every step. Adjusting his change management styles to accommodate the sceneries at play, retuning his lenses to keep in view the target of the school. This suggests that he should employ teamwork, effective communication directing, coaching, telling, delegating or supporting style as the situation dictates, Harsey & Blauchard (1996). The principal who is a leader in the context of a global village requires cutting age skills to mentor, facilitate, manage scarce resources, stimulate creativity, implement innovations in technology to bring about effectiveness and efficiency in the educational system; he is called to supervise. Series of research on educational change management has confirmed that quality of change management practices in a school can make a significant difference to the learning and advancement levels of students (Davidson2014).

This implies that strategies for improving student achievement should include efforts to increase the principals capacity as an instructional leader (Davidson,2014), An active school change management according to Glaze puts students at the centre of a school system and do the following; view education as the ultimate tool for person.' education, thrive on challenge, use resources efficiently, demonstrate personal qualities such as empathy, know how to motivate, develop and inspire subordinates to do more than just the minimum that is required from them.

Due to technology and innovation according to Idogner (2013), the secondary school leaders need the following skills.

- Emotional intelligence
- Critical thinking and analytical skills including ability to analyze and use feedback
- Creativity and innovation
- Effective personal communications skills: clarifying concept and ambiguous objectives
- Technological skills
- Organization skills
- Personal management skills
- Partnership development
- Community outreach, development and engagement in line with the organization corporate social responsibility.
- Community outreach, development and engagement in line with the organization corporate social responsibility.
- Detribalized/ anti-racism world view, equity and inclusiveness.
- Global awareness and understanding being able to know what obtains in other climes through comparative studies.

Schools as organizations, by their very nature are hierarchically organized to achieve the set goals. Going forward, the principal as the school leader should not limit his scope to globally accessed skills of literacy, financial literacy numeracy but also scientific literacy, ICT literacy



financial literacy culture and civic literacy. Incredibly, logical proficiency, data and correspondence education and monetary proficiency speak to the dynamic triumvirate that control worldwide financial improvement and success. Any human culture endeavors to have a place with the in-gathering of the dyad. The head and without a doubt each school chief should direct substance conveyance in such creative manner as to achieve logical education and money related proficiency through the instrumentality of data and correspondence innovation. Today, Technology is reshaping set up societies around the globe. Customary methods of farming, transportation, medicinal services, business including banking, sustenance and nourishment, engineering and interment in many spots have been updated by the inventive pinch of science and innovation made conceivable by the radicalism of data and correspondences innovation.

At the beginning of tutoring, understudies were not instructed how to make cash in schools, shockingly; even the individuals who considered Banking and account think minimal about how to profit. Nonetheless, individuals are being shown Entrepreneurship as a course in schools today. This brings to fore the limit and readiness of the head as one that should lead in the usage of advancements in the educational system. His style of initiative, receptiveness, capacity to impart explain changing jobs and enroll participation, organization and to inspire all partners towards achievement of recognizable and rising objectives. Educators are expected to actualize development in the school; along these lines principals ought to have the option to utilize impetuses to animate "early adopters" or instructors who embrace such advancement like utilization of new innovation in study hall. Instructional practices. It is the assignment of the chief to defuse the dread and protection from innovation by educators who may feel compromised by the presentation of new innovation in the school. This is fundamental because the understudies need the information of these advances such a great amount to make due in the focused world wherein they employable. Accordingly the teaching framework ought to be understudy — focused.

The school head should Endeavor to make it obvious to instructors that innovation use in guidance is desire encouraged on them by the general public. Consequently, the perceivability and backing of the head to educators - is basic in understanding the hierarchical objectives. The primary needs to endeavor to evacuate barriers to innovation utilize and other inventive activities in the school as an association. He ought to guarantee that educators don't lose intrigue or become disappointed by innovation desires and backslide to the norm. This is required by the way that educators manage understudies who are associated with Face-book, Whatsapp, Instagramm and so on once a day, it's absolutely impossible instructors who don't comprehend the utilization of innovation can adequately convey and oversee such understudies. To execute development, the school chief ought to have the option to send from his/her specialized unit information and comprehension of best practices, clear solid and convincing objectives/goals. Get, break down and use input from partners to calibrate or re-engineer the workforce. He/She ought to have the option to assemble the group, imparting in



them synergistic culture and shared qualities that will be manageable, thought process and motivate others through commendable initiative. A vital who is regulating data and interchanges innovation use ought to of need be a computerized local (Ololube, 2014) not a simple head .To direct execution of advancement the chief should construct and continue solid relationship among partners to cultivate trust, make positive workplace that can energize shared objective that each child's-scholastic advancement is a common obligation. The school chief needs self-improvement to have the option to confront complex difficulties that portray his activity. He needs basic deduction to distinguish, break down and assess circumstances, thoughts, and data, so as to figure fitting reactions to the current difficulties. He needs industriousness and determination in some cases being calculative and useful socially; ethnically and socially in managing the group that he/she administers.

LITERATURE REVIEW

Theoretical framework

This study will be anchored on the following theories:

- System Theory by Ludwig von Bertalanffy (1928)
- Path-Goal Contingency Theory by (Evans, 1970; House & Colleagues, 1971).

General systems theory was originally proposed by biologist Ludwig von Bertalanffy in 1928. Since Descartes, the "scientific method" had progressed under two related assumptions. A system could be broken down into its individual components so that each component could be analyzed as an independent entity, and the components could be added in a linear fashion to describe the totality of the system. Von Bertalanffy proposed that both assumptions were wrong. On the contrary, a system is characterized by the interactions of its components and the nonlinearity of those' interactions. In 1951, von Bertalanffy extended systems theory to include biological systems and three years later, it was popularized by Lotfi Zadeh, an electrical engineer at Columbia University. (McNeill and Freiburger, p.22) One common element of all systems is described by Kuhn. Knowing one part of a system enables us to know something about another part. The information content of a "piece of information" is proportional to the amount of information that can be inferred from the information (Kuhn, 1974). Systems can be either controlled (cybernetic) or uncontrolled. In controlled systems information is sensed, and changes are effected in response to the information. Kuhn refers to this as the detector, selector, and effector functions of the system. The detector is concerned with the communication of information between systems. The selector is defined by the rules that the system uses to make decisions, and the effector is the means by which transactions are made between systems. Communication and transaction are the only intersystem interactions. Communication is the exchange of information, while transaction involves the exchange of matter-energy. All organizational and social interactions involve communication and/or transaction. Kuhn's model stresses that the role of decision is to move a system towards equilibrium. Communication and transaction provide the vehicle for a system to



achieve equilibrium. "Culture is communicated, learned patterns, and society is a collection of people having a common body and process of culture."

A subculture can be defined only relative to the current focus of attention. When society is viewed as a system, culture is seen as a pattern in the system. Social analysis is the study of communicated, learned patterns common to relatively large groups (of people). The study of systems can follow two general approaches. A cross-sectional approach deals with the interaction between two systems, while a developmental approach deals with the changes in a system over time. There are three general approaches for evaluating subsystems. A holistic approach is to examine the system as a complete functioning unit. A reductionist approach looks downward and examines the subsystems within the system. The functionalist approach looks upward from the System to examine the role it plays in the larger system. All three approaches recognize the existence of subsystems operating within a larger system. Systems can be identified by their structure. A real system is any system of matter and or energy. An abstract or analytic system is a pattern, system whose elements consist of signs and/ or concepts. Unlike the real system, which can only exchange information, abstract systems are information. A non-system is one or more elements that show no pattern of change. Since change is measured relative to a reference, something can be viewed as both a system and a non-system depending on the researcher's purpose.

A system variable is any element in an active system that can take on at least two different states. Some system variables are dichotomous, and can be one of two values—the rat lives, or the rat dies. System variables can also be continuous. The condition of a variable in a system is known as the system state. The boundaries of a system are defined by the set of its interacting components. Kuhn recognizes that it is the investigator, not nature that bounds the particular system being investigated. (Kuhn, 1974) A controlled (cybernetic) system maintains at least one system variable within some specified range, or if the variable goes outside the range, the system moves to bring the variable back into the range. This control is internal to the system. The field of cybernetics is the discipline of maintaining order in systems. A system's input is defined as the movement of information or matter-energy from the environment into the system. Output is the movement of information or matter-energy from the system to the environment. Both input and output involve crossing the boundaries that define the system. When all forces in a system are balanced to the point where no change is occurring, the system is said to be in a state of static equilibrium. Dynamic (steady state) equilibrium exists when the system components are in a state of change, but at least one variable stays within a specified range. Homeostasis is the condition of dynamic equilibrium between at least two system variables. Kuhn (1974) states that all systems tend toward equilibrium, and that a prerequisite for the continuance of a system is its ability to maintain a steady state or steadily oscillating state. Negative equilibrium feedback operates within a system to restore a variable to an initial value. It is also known as deviation-correcting feedback. Positive equilibrium feedback operates within a



system to drive a variable further from its initial value. It is also known as deviation-amplifying feedback. Equilibrium in a system can be achieved either through negative or positive feedback. In negative feedback, the system operates to maintain its present state. In positive feedback, equilibrium is achieved when the variable being amplified reaches a maximum asymptotic limit. Systems operate through differentiation and coordination among its components.

"Characteristic of organization, whether of a living organism or a society, are notions like those of wholeness, growth, differentiation, hierarchical order, dominance, control, and competition." (von Bertalanffy, 1968) A closed system is one where interactions occur only among the system components and not with the environment. An open system is one that receives input from the environment and/or releases output to the environment. The basic characteristics of an open system are the dynamic interaction of its components, while the basis of a cybernetic model is the feedback cycle. Open systems can tend toward higher levels of organization (negative entropy), while closed systems can only maintain or decrease in organization. A system parameter is any trait of a system that is relevant to an investigation, but that does not change during the duration of study. An environmental parameter is any trait of a system's environment that is relevant to an investigation, but that does not change during the duration of study. Systems theory provides an internally consistent framework for classifying and evaluating the world. There are clearly many useful definitions and concepts in systems theory. In many situations it provides a scholarly method of evaluating a situation. An even more important characteristic, however, is that it provides a universal approach to all sciences. As von Bertalanffy (1968, p. 33) points out, "there are many instances where identical principles were discovered several times because the workers in one field were unaware that the theoretical structure required was already well developed in some other field. General systems theory will go a long way towards avoiding such unnecessary duplication of labor." Organizational development makes extensive use of general systems theory. Originally, organizational theory stressed the technical requirements of the work activities going on in the organizations. In the 1970's, the rise of systems theory forced scientists to view organizations as open systems that interacted with their environment. Although there is now a consensus on the importance of the environment, there is still much disagreement about which features of the environment are most important.

Meyer and Scott (1983) identified three dominant models for analyzing the relationship between organizations and the environment. The organization-set model (often called resource-dependency theory) focuses on the resource needs and dependencies of an organization. The organizational population model looks at the collection of organizations that make similar demands from the environment and it stresses the competition created by limited environmental resources. The interorganizational field model looks at the relations of organizations to other organizations, usually within a localized geographic area.



Five major themes of organizational change were examined by Goodman. (1982): Intervention methods represent alternative approaches to organizational change at the individual, group, and organizational levels. Most studies attempt to ascertain the effectiveness of these approaches by using survey feedback. Some utilize long-term longitudinal approaches to examine the impact of intervention methods. The cataloging of intervention methods is still the dominant way of thinking about planned change. Large-scale multiple system intervention methods have been gaining in popularity since the late seventies. The interest in the quality of work life (QWL) is primarily responsible for this popularity. This approach places strong emphasis on designing innovative techniques that serve as a catalyst for change. Its most important application is that it stresses the relationships between the individual, company, community, state, national and international systems. Assessment of change is a major theme that has emerged as a result of the large-scale multiple system intervention methods. These include models of assessment, instruments for measuring organizational change, the development of time-series models, and an overall increase in the use of multivariate analysis for the testing and evaluation of change.

The examination of failures provides us with valuable information about organizational change. It forces us to focus on the theoretical constructs of change. By comparing successful and unsuccessful attempts at implementing change, we can evaluate the effectiveness of various techniques. The level of theorizing about organizational change has seen significant improvements in recent years. Of particular importance are broad-systems orientations. These theories propose a model of organizational change that examines inputs, transformational processes, and outputs. Inputs refer to the environmental resources. Transformation refers to the tasks and the formal and informal system (organizational) components. Outputs' include changes in both the individual and organization. The advantage of this approach is that it forces us to look at the broad spectrum of variables that need to be incorporated into the model. Organizational and social systems must change in order to remain healthy. Both are open systems, and are sensitive to environmental changes. A change in the environment can have a profound impact on an open system. The overall health of an organization is strongly linked to its ability to anticipate and adapt to environmental change. Furthermore, the health of the environment is related to the matter-energy transactions taking place in the social and organizational systems. A bilateral relationship exists between the environment and the components of all subsystems operating within the environment. Planned organizational or social change is an attempt to solve a problem or to catalyze a vision. A change is introduced into an organization or social system with the specific intent of affecting other system variables. Knowledge of the nonlinear relationships between variables gives planners the potential to effect large changes in a desired variable with relatively small changes in another. Systems theory forces planners to broaden their perspective, and to consider how their decisions will affect the other components of the system and the environment.



Path-Goal contingency theory of change management. Path-goal theory is one of the widely known contingency theories of change management effectiveness, by Evans (1970), House Colleagues (1971). This theory is based on the expectancy theory of motivation. It emphasizes the leader's influence on subordinate's goals and the paths to achieve the goals. It explains that employees have goals which they wish to achieve by working for the organization and that the leader influences the achievement of the organization's goals by linking the organization's goals with the personal goals of the subordinates. It states that leaders have influence over subordinate's ability to reach goals, can influence rewards associated with reaching the goals and the importance of the goals. The theory attempts to explain the influence of change management behavior on subordinate's motivation, satisfaction, efforts and performance, moderated by situational factors of the subordinates and the environment, Path-Goal theory comprise four distinct types of change management; directive, supportive, Participative and Achievement-oriented change management. Directive change management: is a task-oriented change management. It lets subordinates know what is expected of them, provides specific guidance concerning what is to be done, sets performance standards, requests subordinate to follow standard rules and regulations, schedules and coordinates work and explains his/her roles as a leader.

CONCEPTUAL FRAMEWORK

The Concept of Change management

The term school change management came into currency in the late 20th century for several reasons. Demands were made on schools for higher levels of pupil's achievement, and schools were expected to improve and reform. These expectations were accompanied by calls for accountability at the school level. Maintenance of the status quo was no longer considered acceptable. Administration and management are terms that connote stability through the exercise of control and supervision. The concept of change management was favored because it conveys dynamism and pro-activity. The principal or school head is commonly thought to be the school leader; however, school change management may include other persons, such as members of a formal change management team and other persons who contribute toward the aims of the school. While school change management or educational change management have become popular as replacements for educational administration in recent years, change management arguably presents only a partial picture of the work of school, division or district, and ministerial or state education agency personnel, not to mention the areas of research explored by university faculty in departments concerned with the operations of schools and educational institutions. For this reason, there may be grounds to question the merits of the term as a catch-all for the field. Rather, the etiology of its use may be found in more generally and con-temporarily experienced neo-liberal social and economic governance models, especially in the United States and the United Kingdom. On this view, the term is understood as having been borrowed from business.



Educational change management draws upon interdisciplinary literature, generally, but ideally distinguishes itself through its focus on pedagogy, epistemology and human development. In contemporary practice it borrows from political science and business. Debate within the field relates to this tension. Numerous educational change management theories and perspectives have been presented and explored, such as: (a) instructional change management; (b) distributed change management; (c) transformational change management; (d) social justice change management; and (e) Teacher change management. Researchers have explored how different practices and actions impact student achievement, teacher job satisfaction, or other elements related to school improvement. Moreover, researchers continue to investigate the methodology and quality of principal preparation programs. A number of publications and foundations are devoted to studying the particular requirements of change management in these settings, and educational change management is taught as an academic discipline at a number of universities.

Being a school leader means serving on a committee, such as a school improvement team; acting as a grade-level or department chair; supporting school initiatives; or representing the school on community or district task forces or committees. A school leader shares the vision of the school, aligns his or her professional goals with those of the school and district, and shares responsibility for the success of the school as a whole. School change management is the process of enlisting and guiding the talents and energies of teachers, pupils, and parents toward achieving common educational aims (2013). This term is often used synonymously with educational change management in the United States and has supplanted educational management in the United Kingdom. The primary purpose of educational change management is to ensure academic success through process, material and training improvements. This is mainly accomplished through collaboration with different individuals, such as educators, parents, students, public policy makers and the public. The concept of educational administration is applicable in case of an educational organization which has certain purposes or goals to fulfill. Advertisements: In order to achieve these purposes or goals, the head of the educational organization plans carefully various programmes and activities. School leaders improve teaching and learning indirectly and most powerfully through their influence on staff motivation, commitment and working conditions. School change management has a greater influence on schools and students when it is widely distributed. Some patterns of distribution are more effective than others.

A leader in an organization is a means to an end; he can take any type of change management style depending on the circumstances on ground. However for effective and efficient work in an organization. Democratic transaction style can be used because it helps the school maintain an open climate where members enjoy extremely high esprit de -corps. According to Lunenberg (1991) any achievement in secondary school is dependent on three identifiable change management styles namely: autocratic, democratic and laissez faire change management styles. Murray (2013) states that autocratic change



management styles appears generally self-centered and allow minimum participation of the subordinate in decision making, the democratic style is rather people oriented and counts on the participatory contribution of their subordinates, he noted that it permits initiatives, originality and creativity in the school work, operation and promote hard work among the subordinates. Productivity is the hall mark of growth and development of a nation all over the world, an effective and efficient way, a measure of getting ' things done. In the school, teachers' productivity may be measure in terms of teachers' performance. Schacter and Thurn (2004). Wenlisky (2001) suggest that teachers' productivity may be evaluated in terms of what the teacher controls and actually do in class room such as teaching effectiveness and classroom performance. Instructional change management involves setting clear goals, managing curriculum, monitoring lesson plans, allocating resources and evaluating teachers regularly to promote student learning and growth. Quality of instruction is the top priority for the instructional principal.

Change Management Change and Innovation in Education Development

School change management is the process of enlisting and guiding the talents and energies of teachers, pupils, and parents toward achieving common educational aims. This term is often used synonymously with educational change management in the United States and has supplanted educational management in the United Kingdom. Several universities in the United States offer graduate degrees in educational change management (Bera, 2014) certain obstacles of educational change management can be overcome (Eaton, Dressier, Gereluk, & Becker, 2015). A self-assessment technique can help examine equity and justice that affects student diversity, especially with selection of candidates. Today, technology is a significant driver behind change, and sometimes plays an important role in innovations in educational design and delivery. There are immense possibilities for greater and wider-spread change with the use of present-day technological advancements, as well as with the implementation of innovative educational programs. The challenge is to ensure that innovation plays a constructive role in improving educational opportunities for billions of people who remain under-served in a rapidly developing world.

The following is one scenario that serves to illustrate the potential impact of technology in education. This scenario may or may not represent an ideal application of innovation and technology; however it is indicative of the link between technological innovation and innovations in educational delivery. During her lunch break, Anne uses her company computer to browse the class discussion area on the institution's website, and she joins her class colleagues in a brief online discussion. Next Anne begins to tackle her homework, which requires research, discussion, of the topic with a class group, and submission of a joint assignment. Anne starts planning the assignment during the afternoon tea break, and at the end of the work day she spends 20-minutes typing the assignment outline and then emails it to her group before saving it on a memory stick and heading home via minibus. En route, Anne catches up on readings. One chapter is from a 500-page book, which is both



heavy to carry and very expensive. Fortunately, the institution has digital rights for use of the content by its learners, so Anne downloaded the chapter to her smart phone. Considering her hectic family life, this chapter would likely go unread at home. The above scenario might seem familiar to those who have studied by night classes. While it focuses on a learner, the scenario could be similar for teachers, tutors, agricultural extension workers, and other learners. Technologies that are now available in most Commonwealth countries increase the potential to support learners and educators, and can help remove the barriers of time and distance. New information and communications technologies (ICTs) do not replace all previous ones, nor do they replace the need for good educational design and delivery. However, appropriate technologies can provide additional possibilities for learner support, interactivity, and access to education.

Innovation for 'Learner-Centered' Education

How innovation and technology can offset the barriers of access and mobility that has been, a deterrent to education in many parts of the developing world? With the emergence of smart phones, eBook readers, 'Podcasts' and Vodcasts. Internet and low-cost computers, as well as solar electricity, cell phone access, and other technologies, comes the opportunity to provide education to assist individuals and communities in places under-served by traditional educational institutes. Technology and other innovations enable educational design and delivery to be adapted to the needs and environment of students enrolled in Open and Distance learning (ODL) and traditional educational programs. Thus, technology can also help programs shift to a learner-centered' approach to education.

Needs Driven Approach to Innovation

The focus must be on achieving education and development objectives, not on popularizing technical gadgets. However, learners have demonstrated the ability to gain technical proficiency in a variety of software, hardware, and other information and communications technologies (ICTs). How can education systems assimilate this into program design and delivery in order to improve efficiency, control costs, and expand delivery of education to larger numbers of people? How will the convergence of communications technologies affect the potential for providing improved learner support? In an environment in which the postal system is slow or unreliable, traditional ODL can face challenges in program delivery. Today Internet and email has enabled changes in the design and delivery of ODL in many parts of the world. What technologies are accessible for learners in developing countries? In many places, cell phones are in very widespread use, and text messaging is popular for work and personal communications, yet few institutions have adopted this tool. How can instructors and institutes more closely match their educational design and delivery with the technologies to which learners have regular access?



Keeping Abreast of Technological Change

"Although technology should not drive our teaching, technology does drive change". Today, educators have the challenge of monitoring changes in technologies, determining if they apply to learners living in 'the real world/' and seeking ways to use technologies to complement and support instructional methodologies and practices.

Who will educate the educators? How can educators keep abreast of technological advancements that support innovations and improvements in instructional design and delivery? What can institutions, governments, and international organizations do to help educators to master new technologies and tools for creating and facilitating educational opportunities?

Challenges, Opportunities, and Barriers

Given the challenges of insufficient numbers of teachers being trained, teachers leaving the profession, and too few classrooms in developing countries, can technology enable more people to access education? Will the next generation of low-cost computers make it feasible for more students in developing countries to have access to this technology? It is not the technology, but the potential it provides for access, efficiency, and enhanced learning opportunities. Computers better enable learners to access education through ODL. Learners can use Internet technology to communicate with other students or instructors across a city or around the world. Teachers and students can access information through virtual libraries and the World Wide Web, and use software to master technical as well as academic skills. The opportunities are immense, but there are also technological limitations in many parts of developing countries. Barriers to technological innovations for supporting education include inadequate telecommunications bandwidth, lack of trained support staff, and the cost and the availability of simple telephones, cell phones, computers, and electricity. Here are some questions to ponder in applying innovation to enable access to education: What processes are needed to provide electricity and broadband access for all educational institutions (e.g. schools, colleges, universities); What processes are needed to provide broadband access to all lifelong learners (adults who can pay reasonable rates for access); What alternatives do institutions have if they are unlikely to be connected to a reliable electricity service in the foreseeable future? What alternatives are there for introducing computers or increasing their numbers in schools and institutions of higher learning; and if computers are to be installed in institutions, what processes are under way to ensure full training and support for teachers and learners to effectively integrate these into the teaching, learning and school management processes? What are the innovations in education that can help meet the three-billion people challenge?

Benefits of Technology in the Manufacturing Sector

There's quite a bit of evidence that technology, when used in the right way, helps students learn. One study, for example, showed that a medical school class with iPads scored 23% higher on exams than classes without this device.



Technology, such as tablets, isn't only useful for absorbing knowledge; it helps with communication as well. Teachers and administrators use such devices to send materials and information to students and parents. Students hand in homework and term papers online and can access educational applications and programs to further assist with learning.

Here are some of the clear benefits of using technology in the classroom:

It makes learning interesting and engaging, especially for younger generations raised on the latest technology.

It allows for faster and more efficient delivery of lessons, both in the classroom and at home.

It reduces the need for textbooks and other printed material, lowering long-term costs incurred by schools and students.

It makes collaboration easier. Students, teachers, and parents can communicate and collaborate more effectively.

It helps to build technology-based skills, allowing students to learn, early on, to embrace and take advantage of the tools technology offers.

Finding Innovative Applications of Technology

While technology, in and of itself, does not always spur innovation in the classroom, there are countless innovative ways to use technology to better teach and engage students. Here are some examples:

Mobile Technology - Smartphone's and other mobile devices are increasingly used in education. Mobile apps let teachers conduct digital polls, enhance verbal and presentation skills, and incorporate technological skills with core competency lessons.

3D Learning - Kids enjoy 3D games and movies, so why not use this technology to help them learn? GEMS Modern Academy in Dubai does just this, providing students with a 3D lab that offers interactive multimedia presentations.

Assisting Special Needs trainees - Assistive technology is especially useful for students with learning disabilities. For example, phonetic spelling software helps dyslexic students and others with reading problems to convert words to the correct spelling.

METHODOLOGY

Statement of the Problem

It appears that the population of educators, legislators, foundations and different partners have observed and are concerned that those leaving schools are not ready to show aptitudes and learning required in the 21st century social orders. They wonder whether the instructors are not doing their work. A few partners speculate that school administration may have been undermined with the end goal that school administration is not providing change management to achieve learning for the 21st century living and working.



The questions therefore are, school change management deficient, are school change management abreast with change and innovation in education that is necessary for the 21st century learning? Is school change management really prepared for the emergent issues of 21st century schools?

PURPOSE OF THE STUDY

The purpose of this study is to examine technological change management and employee performance. Specifically, the study determined;

The extent to which change management decision making roles influence the implementation of technology innovations in secondary schools in Rivers State in Rivers State.

The extent to which change management communication role influence implementation of innovations in secondary schools in Rivers State curriculum in Rivers State.

The extent to which change management conflict resolution roles can influence educational policy in secondary schools in Rivers State in Rivers State, Rivers State.

Research Questions

The following research questions guided this study

To what extent does change management decision making roles influence the implementation of education innovations in secondary schools in Rivers State in Rivers State.

To what extent does a change management communication role influence implementation of innovations in secondary schools in Rivers State in Rivers State?

The extent to which school change management conflict resolution roles influence implementation of innovations in secondary schools in Rivers State in Rivers State

Hypotheses

The following hypotheses were postulated to be tested at 0.05 level of significance.

There is no significant relationship between school change management decision making roles and implementation of education innovations in secondary schools in Rivers State in Rivers State.

There is no significant relationship between school change management communication roles and implementation of change and innovations in secondary schools in Rivers State in Rivers State.

There is no significant relationship between school change management conflict resolution roles and implementation of change

Research Design

The descriptive survey research design will be used for this study. Survey research design is one directed towards determining the nature of situation as it exists as at the time of the study.



Population of the Study

The population of this study will comprise 10 secondary schools in Rivers State in Rivers State. Total staff of 100 will be studied.

Sample and Sampling Technique

The sample size for this study will be 80 staff of secondary schools in Rivers State which about 65% of the target population drawn with the aid of Taro Yamen's formula.

$$S = N (C_1 + Na^2)$$

S = Simple size
N = Population size
a = level of significance (0.05)

Instrumentation

The questionnaire will be divided into 2 parts:

Part A is concerned with the demographic information of respondents, while part B is the questionnaire proper. The 30 items were drafted using the modified 4 point Likert scale of very high extent (VHE), High extent (HE), Low extent (LE), Very low extent (VLE). Thus, coded as: VHE – 4 points, HE – 3 points, LE – 2 points and VLE – 1 point.

Validation of the Instrument

To ensure face and content validity of the instrument, the first copy of the instrument was given to the research supervisor.

Reliability of the Instrument

To test reliability of the instrument, the split-half method is employed. By that, the questionnaire will be test run on 20 staff outside the sample size area at a stretch and results will be collated based on even and odd numbers. The even and odd numbers will form two different results and the Spearman Brown formula will be used to test the relationship between the two results.

Administration of the Instrument

To ensure precision in the use of instrument, the researchers employed the services of three (3) of his course mates that will assist in the distribution and retrieval of the instrument back from respondents.

Method of Analysis

The research questions will be answered using descriptive Statistics (mean and standard deviation). A criterion mean of 2.50 Will be set as a benchmark for acceptance and rejection, 2.50 and above will be considered agree, while 2.49 and below will be considered disagree. The null hypotheses will be tested using z-tests statistics at 0.05 level of significance



Test Results/Analysis

Response to Questionnaire Distributed

In this study, a total number of 380 copies of questionnaires were distributed to teachers in public secondary schools in Rivers State. Some copies of the questionnaire distributed were duly completed, while some were not completed, some were not returned due to respondent's unavailability. Table 1 above shows that out of the 380 questionnaires that were distributed to teachers in public secondary schools in Rivers State, 350 copies or 92% was duly completed and returned. Thirty copies representing 8% were not completed or returned. However, for the purpose of analysis, the 92% returned and completed will be used for analysis.

4.2 Tabular Presentation and Analysis of Respondents Demographics (using Descriptive statistics SPSS version20).

Table 1

Gender	Frequency	Percent
Male	139	39.7
Female	211	60.3
Total	350	100.0
Age		
31-40	139	39.7
41-50	44	12.6
51-60	97	27.7
60-above	70	20.0
Total	350	100.0
Edu Qualification		
OND/NCE	57	15.4
DEGREE/HND	120	34.3
MASTERS	130	37.1
PHD	43	12.3
Total	350	100.0
Marital Status		
Single	60	17.1
Married	286	81.7
Separated	4	1.1
Total	350	100.0

Table one above shows that the respondents there were total of 139 male teachers representing 39.7% and female 211 representing 60.3%. Age brackets were 31-40 were 139 or 39.7%, 41-50 were 44 or 12.6%, 51-60 were 97 or 27.7% and 60-above 70 representing 20%. The



educational qualification of the respondents were, OND/NCE 57 representing 15.4%, degree/HND 120 representing 34.3%, masters 130 or 37.1%, PhD 43 or 12.3%. 60 or 17.1% were single, 286 or 81.7% were married while 4 or 1.1% were separated.

Answer to Research Questions: Mean and Standard Deviation statistical tool will be used to answer the research questions at benchmark of 2.50.

Research Question 1: To what extent does school change management decision making roles influence the implementation of education innovations in secondary schools in Rivers State in Rivers State.

Table 2: Answer to Research Question 1

Items	N	Mean	Std. Deviation	Remark
1. School change management decision making is at the core of innovation adoption	350	2.3800	1.07919	Disagree
2. School change management timing of innovation implementation influences its success or failure	350	2.6743	1.26770	Agree
3. School change management does not decide the innovation to implement	350	2.3200	1.10762	Disagree
Total	350			

Table 2 above in **item 1** with mean score of 2.3800 and STD 1.07919 shows that the respondents disagreed that school change management decision making is at the core of innovation adoption. In **item 2**, mean score of 2.6743 and STD 1.26770 shows that the respondents agreed that School change management timing of innovation implementation influences its success or failure while in **item 3** mean score of 2.3200 and STD 1.10762 indicates that the respondents disagreed that School change management does not decide the innovation to implement.

Research Question 2: To what extent do school change management communication roles influence implementation of innovations in secondary schools in Rivers State in Rivers State?



Table 3: Answer to Research Question 2

Item	N	Mean	Std. Deviation	Remark
4. Innovations could be implemented without proper communication	350	2.79143	1.070273	Agree
5. Teachers need to be properly communicated in order to do their jobs	350	2.1057	1.17896	Disagree
6. Students and teachers need effective communication for innovations to be implemented	350	1.2086	.48406	Disagree
Total	350			

Table 3 above, **item 4** with mean score of 2.79143 and STD 1.070273 implies that the respondents agreed that Innovations could be implemented without proper communication. In **item 5** mean score of 2.1057 and STD of 1.17896 shows that the respondents disagreed that teacher need to be properly communicated in order to do their jobs. In **item 6**, mean score of 1.2086 and STD of .48406 shows that the respondents disagreed that students and teachers need effective communication for innovations to be implemented.

Research Question 3: To which extent does school change management conflict resolution roles influence implementation of innovations in secondary schools in Rivers State in Rivers State?

Table 4: Answer to Research Question 3

Item	N	Mean	Std. Deviation	Remark
7. Conflicts resolution is essential in the implementation of innovation	350	2.4486	1.20002	Disagree
8. Conflicts do not occur during introduction of most innovations	350	1.9029	1.08743	Disagree
9. Fear of the unknown is a problem in innovation implementation	350	1.9086	1.16427	Disagree
Total	350			

From table 4 above, in **item 7** mean score of 2.4486 and STD 1.20002 implies that the respondents disagreed that conflicts resolution is essential in the implementation of innovation. In **item 8**, mean score of 1.9029 and STD 1.08743 implies that the respondents



disagreed that conflicts do not occur during introduction of most innovations and in **item 9** mean score of 1.9086 and STD 1.16427 implies that the respondents disagreed that fear of the unknown is a problem in innovation implementation.

Research Question 4: To which extent does school change management conflict resolution roles influence implementation of innovations in secondary schools in Rivers State in Rivers State?

Table 5: Answer to Research Question 4

Items	N	Mean	Std. Deviation	Remark
10. Financial prudence are crucial implementation of innovation	350	1.3343	.47242	Disagree
11. Special skills, equipment and training are required in the implementation of most innovations	350	2.9629	1.96504	Agree
12. Most innovation comes with huge maintenance cost.	350	2.5829	1.38710	Agree
Total	350			

Table 5 above shows in **item 10** with mean score of 1.3343 and STD .47242 that the respondents disagreed that financial prudence are crucial implementation of innovation. In **item 11**, mean score of 2.9629 and STD 1.96504 implies that the respondents agreed that Special skills, equipment and training are required in the implementation of most innovations. In **item 12** mean score of 2.5829 and STD 1.38710 shows that the respondents equally agreed that most innovation comes with huge maintenance cost.

Research Question 5: To what extent does a school change management instructional management role influence implementation of educational innovations in secondary schools in Rivers State in Rivers State?

Table 6: Answer to Research Question 5

Items	N	Mean	Std. Deviation	Remark
13. Innovations come in the form of curriculum reviews	350	2.4486	1.20002	Disagree
14. Curriculum implementation is an important aspect of innovation implementation	350	2.189	1.2797	Disagree



15. Performance of student is dependent on contact delivery. Therefore, innovation in instructional material is crucial	350	2.9514	1.98512	Agree
Total	350			

From table 13 above **item 13** mean score of 2.4486 and STD 1.20002 shows that the respondents disagreed that innovations come in the form of curriculum reviews. In **item 14**, mean score of 2.189 and STD 1.2797 means that the respondents disagreed that curriculum implementation is an important aspect of innovation implementation and **item 15** mean score of 2.9514 and STD 1.98512 shows that the respondents agreed that performance of student is dependent on contact delivery.

Testing of Research Hypothesis: The research hypotheses were tested using ANOVA statistical tool at the 0.05 significance level.

Research Hypothesis 1: There is no significant relationship between school change management decision making roles and implementation of education innovations in secondary schools in Rivers State in Rivers State.

Table 7: Testing of Research Hypothesis 1 Correlations

		Item 1	Item 2	Item 3	
Spearman's rho	Item 1	Correlation Coefficient	1.000	-.078	.233**
		Sig. (2-tailed)	.	.148	.000
		N	350	350	350
	Item 2	Correlation Coefficient	-.078	1.000	-.342**
		Sig. (2-tailed)	.148	.	.000
		N	350	350	350
	Item 3	Correlation Coefficient	.233**	-.342**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	350	350	350

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

Research Hypothesis 2: There is no significant relationship between school change management communication roles and implementation of innovations in secondary schools in Rivers State in Rivers State



Table 8: Testing of Research Hypothesis 2
Correlations

		Item 4	Item 5	Item 6	
Spearman's rho	Item 4	Correlation Coefficient	1.000	.246**	.429**
		Sig. (2-tailed)	.	.000	.000
		N	350	350	350
	Item 5	Correlation Coefficient	.246**	1.000	.152**
		Sig. (2-tailed)	.000	.	.004
		N	350	350	350
	Item 6	Correlation Coefficient	.429**	.152**	1.000
		Sig. (2-tailed)	.000	.004	.
		N	350	350	350

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

Research Hypothesis 3: There is no significant relationship between school change management conflict resolution roles and implementation of innovations in secondary schools in Rivers State in Rivers State

Table 9: Testing of Research Hypothesis 3
Correlations

		Item 7	Item 8	Item 9	
Spearman's rho	Item 7	Correlation Coefficient	1.000	.483**	.090
		Sig. (2-tailed)	.	.000	.092
		N	350	350	350
	Item 8	Correlation Coefficient	.483**	1.000	-.272**
		Sig. (2-tailed)	.000	.	.000
		N	350	350	350
	Item 9	Correlation Coefficient	.090	-.272**	1.000
		Sig. (2-tailed)	.092	.000	.
		N	350	350	350

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



Research Hypothesis 4: There is no significant relationship between school change management financial management roles and the implementation of innovations in secondary schools in Rivers State in Rivers State.

Table 10: Testing of Research Hypothesis 4
 Correlations

		Item 10	Item 11	Item 12	
Spearman's rho	Item 10	Correlation Coefficient	1.000	.695**	-.085
		Sig. (2-tailed)	.	.000	.114
		N	350	350	350
	Item 11	Correlation Coefficient	.695**	1.000	.166**
		Sig. (2-tailed)	.000	.	.002
		N	350	350	350
	Item 12	Correlation Coefficient	-.085	.166**	1.000
		Sig. (2-tailed)	.114	.002	.
		N	350	350	350

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

Research Hypothesis 5: There is no significant relationship between school change management instructional management roles and the implementation of innovations in secondary schools in Rivers State in Rivers State.

Table 11: Testing of Research Hypothesis 5
 Correlations

		OR13	OR14	OR15	
Spearman's rho	OR13	Correlation Coefficient	1.000	.412**	.090
		Sig. (2-tailed)	.	.000	.093
		N	350	350	350
	OR14	Correlation Coefficient	.412**	1.000	-.095
		Sig. (2-tailed)	.000	.	.076
		N	350	350	350
	OR15	Correlation Coefficient	.090	-.095	1.000
		Sig. (2-tailed)	.093	.076	.
		N	350	350	350



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

DISCUSSION OF FINDINGS

Table 7 above, hypothesis 1 shows p-value of $.001 < .05$ which implies that there is a significant relationship between school change management decision making roles and implementation of education innovations in secondary schools in Rivers State in Rivers State. The null hypothesis is therefore rejected. The respondents opined that there is a significant relationship between school change management decision making roles and implementation of education innovations in public secondary schools in Rivers State. The stance of the respondents was buttressed by Aiye (2013) stating that being a school leader means serving on a committee, such as a school improvement team; acting as a grade-level or department chair; supporting school initiatives; or representing the school on community or district task forces or committees. A school leader shares the vision of the school, aligns his or her professional goals with those of the school and district, and shares responsibility for the success of the school as a whole. School change management is the process of enlisting and guiding the talents and energies of teachers, pupils, and parents toward achieving common educational goals and objectives. From table 8 above, hypothesis 2 shows p-value of $.001 < .05$ which implies that there is a significant difference between school change management communication roles and implementation of innovations in secondary schools in Rivers State in Rivers State. The position of the respondents is that change management communication roles do not influence implementation of innovations in public secondary schools in Rivers State. Kuhn (2000) affirmed the position of the respondents stating that Communication is the exchange of information, while transaction involves the exchange of matter-energy.

All organizational and social interactions involve communication and/or transaction. Kuhn's model stresses that the role of decision is to move a system towards equilibrium. Communication and transaction provide the vehicle for a system to achieve equilibrium. "Culture is communicated, learned patterns, and society is a collection of people having a common body and process of culture." In table 9, hypothesis 3 showed p-value $.001 < .05$ which implies that there is a significant relationship between school change management conflict resolution roles and implementation of innovations in secondary schools in Rivers State in Rivers State. The null hypothesis is therefore rejected. The respondents were of the opinion that change management conflict resolution roles are related to implementation of innovations in public secondary schools in Rivers State. In table 10, hypothesis 4 showed p-value of $.001 < .05$ which indicates that there is a significant relationship between school change management financial management roles and the implementation of innovations in secondary schools in Rivers State in Rivers State. The position of the respondents therefore nullifies the null hypothesis.



In table II, hypothesis 5, p-value of $.000 < .05$ also shows that there is a significant relationship between school change management instructional management roles and the implementation of innovations in secondary schools in Rivers State in Rivers State.

Summary of Findings

Hypothesis 1 showed that there is no significant difference between school change management decision making roles and implementation of education innovations in secondary schools in Rivers State.

Hypothesis 2 however showed that there is significant difference between school change management communication roles and implementation of innovations in secondary schools in Rivers State.

Hypothesis 3 testing showed there is significant relationship between school change management conflict resolution roles and implementation of innovations in secondary schools in Rivers State.

In hypothesis 4 there is significant relationship between school change management financial management roles and the implementation of innovations in secondary schools in Rivers State.

In Hypothesis 5, there is a significant relationship between school change management instructional management roles and the implementation of innovations in secondary schools in Rivers State.

CONCLUSION

Change management of any institution is behooved with the responsibility of policy drafting. Such coverage of policies covers innovation. Innovation especially in the education sector has become the order of the day. There is need for the training and retraining of teachers to cope with the modern trend as well as cope the digital citizen students of the present era.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations were reached: Since the respondents opined that there is a no significant relationship school change management decision making roles and implementation of education innovations in secondary schools in Rivers State in Rivers State, there is need for administrators to not only take decisions but take steps to implement them to the letter. The position of the respondents is that there is a significant relationship between school change management communication roles and implementation of innovations in secondary schools in Rivers State in Rivers State, there is need to need for management to communicate effectively and timely to all members of staff to avoid information filtering. Government should regularly organize seminars and training sessions on change management and administration principles. Principals should learn to delegate duties to the principals who could be themselves potential principals. Principals should collaborate with government agencies in training and awareness on innovation policies and implementations..



REFERENCES

- Bera, S. (2014). *Research and the Teaching Profession. Building the capacity for a self-improving education system*. London; ISBN 978-0-946671-37-3.
- Birman, K. (2011). "What makes professional development effective?". *American Education Research Journal* 38 (4): 915-946.
- Eaton, S. E.; Dressier, R.; Gereluk, D. & Becker, S. (2015). "A review of the literature on rural and remote pre-service teacher preparation with a focus on blended and e-learning models". *Werklund School of Education Research - & Publications*
- Eaton, S. E.; Dressier, R.; Gereluk, D.; Becker, S. (2015). "A review of the literature on rural and remote pre-service teacher preparation with a focus on blended and e-learning models". *Werklund School of Education Research & Publications*.
- Eaton, S. E.; Gereluk, D.; Dressier, R. & Becker, S. (2017). "A Canadian online rural education teacher preparation program: Course design, student support and engagement". Paper presented, at the American Educational Research Association (AERA) Annual Conference, San Antonio, TX, USA. Doi: 10.5072/PRISM/31627.
- Goodman, P. (1982). *Change in Organizations*. San Francisco: Jossey-Bass.
- Jabbar, A. & Hardaker, G. (2013). The role of culturally responsive teaching for supporting ethnic diversity in British University Business Schools. *Teaching in Higher Education*, 18 (3). pp. 272-284.
- John, S. (2013). Change management style and teachers job performance in private secondary schools in Hoima District
- Lunenberg, F. C. & Orstein, A. C. (1999). *Educational administration concepts and practice*, Belmont C.A. wooworth.
- Meyer, J. & Scott, W. (1983). *Organizational Environments: Ritual and Rationality*. Beverly Hills: Sage.
- Murray, A. (2013). *Fundamentals in educational administration and planning. The world street journal guide to management*. Publisher harper business Asia Europe
- Oancea, A. (2014). "Teachers' professional knowledge and state-funded teacher education: a history of critiques and silences". *Oxford Review of Education*. 40 (4): 497-519. doi: 10.1080/03054985.2014.939413.
- Rosser, U 85 Massey, I. (2013). *Educational Change management: The Power of Oneself*. Peter Lang.
- Schacter J. & Thurn Y. M. (2004) Paying for high and low quality teaching "economics of education. *Review* 2:411-430 Retrieved October 3, 2005 from www.elsevier.com/locate/econeducer
- Villegas, A. & Lucas, T. (2002). "Preparing culturally responsive teachers rethinking the curriculum". *Journal of Teacher Education*. 53 (1):20-32. doi: 10.1177/0022487102053001003.
- VonBertalanffy, L. (1968). *General System. Theory: Foundations, Developments, Applications*. New York: Braziller.



Wenlingsky, H., (2001). Teachers' class room practice and students performance .How school makes difference "Retrieved June 25 2005 from <http://www.etc.org/research/dload/ribr-01-19.pdf>

Winstead, F. S. (2006). "A technology supported induction network for rural student teachers"(PDF).

IMPLEMENTATION OF INNOVATION QUESTIONNAIRE (IIQ)

S/N		VHE	HE	LE	VLE
	Extents which school change management decision making influences implementation of innovation				
1.	School change management decision making is at the cone of innovation adoption				
2.	School change management timing of innovation implementation influences its success or failure				
3.	School change management does not decide the innovation to implement				
	Extent to which school change management communication influence implementation of innovation				
4.	Innovations could be implemented without proper communication				
5.	Teachers need to be properly communicated in order to do their jobs				
6.	Students and teachers need effective communication for innovations to be implemented				
	Extent to which conflict resolution influences implementation of innovation				
7.	Conflicts resolution is essential in the implementation of innovation				
8.	Conflicts do not occur during introduction of most innovations				
9.	Fear of the unknown is a problem in innovation implementation				
	Extent to which school change management financial management influence implementation of innovation funding				



10.	Financial prudence are crucial implementation of innovation				
11.	Special skills, equipment and training are required in the implementation of most innovations				
12.	Most innovation comes with huge maintenance cost.				
13.	Extent to which school change management instructional management influence implementations				
14.	Innovations come in the form of curriculum reviews.				
15.	Curriculum implementation is an important aspect of innovation implementation				
	Performance of student is dependent on contact delivery. Therefore, innovation in instructional material is crucial				

SCHOOL CHANGE MANAGEMENT ROLES QUESTIONNAIRE

S/N		VHE	HE	LE	VLE
1.	Extent to which school change management decision making roles influence implementation of education innovation				
2.	Change management decision making is not a factor in the implementation of innovation				
3.	Teachers decide innovation to adopt				
4.	School change management decides the time to innovation				
5.	Extent to which school change management communication roles influences implementations				
6.	Communication is key in implementation of innovation				
7.	Teachers know their job, so they do not need communication to perform will				
8.	Students are the only people that need to be communicated				
9.	Extents to which conflict resolution roles influence implementation of innovation.				
10.	Conflict resolution is not a factor in my school				
11.	Conflict occur during introduction of most innovations				
12.	Fear of extra task is a factor in adoption of innovation				
13.	Extent to which school change management financial management roles influences implementation of innovation				



10.	Financial prudence is needed to implement innovations				
11.	Finances could be wasted in the name of implementing innovation				
12.	Most innovation comes with a huge maintenance cost.				
13.	Extent to which school change management instructional management roles influence implementation of innovations				
14.	Innovation come inform of curriculum reviews				
14.	Curriculum implementation is important aspect of school leaders task				
15.	Performance of students is dependent on content delivery. Thus, instructional management is a crucial factor				