

Managing Innovations in Educational System in Nigeria: A Focus on Creating and Sustenance of Culture of Innovation

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Abstract

Innovation is a tool to enhance sustainable development in education, and it has been receiving the attention of educators, educationists and researchers across the world. In organizational context, innovation is viewed as intentionally bringing into existence and practice something new, so as to enhance performance and growth through improvement in efficiency and effectiveness. This paper examined the need of educational system for a school culture that is dynamic and forward looking, in order to create an environment for innovation. It discusses innovation as a leadership task, sustenance of innovation in schools, innovation as a tool to transform education, and challenges of innovation in schools. The sustenance of innovation includes: creating and sustenance of culture of innovation; holistic approach to innovation; effective goal definition; avoidance of innovation failures; and innovative lab. Innovations were faced with challenges of inadequate funding and facilities, lack of innovation culture in schools, inadequate leadership guidance and orientation, and poor attitude to research outcomes. It was concluded that school culture of innovation is to enhance and sustain; school quality, productivity and efficiency. Innovation requires development not only for individual creativity alone but creating a sustainable innovative environment. It was recommended that schools should create and maintain the culture of innovation, leaders should create innovation culture, and individual must become a master of innovation so as to constantly inventing or creating their experience.

Keywords: innovation, culture of innovation, leadership, transforming education, individual creativity

INTRODUCTION

Creating and sustaining conducive social and working environment for innovation to emerge and thrive is desirable in the educational system. Globalisation and the desire of education system to meet up with the pace of growth and development, requires the educational administrators to look inward and make innovation a priority in the school system. Prioritization of innovation is achievable, if culture of innovation is sustained in the school system. An innovation is transforming of practice in an organisation. It is not the same as the invention of a new idea or object. A transformation of practice in the organization won't happen unless the new practice generates more value to the members than the old. Many innovations were preceded or enabled by inventions; but many innovations occurred without a significant invention (Denning2004). In a culture of innovation people will have a habit of constantly looking for ways to improve things (Denning 2004). The use of technology as the only solution to innovation would not meet challenges of education in this millennium. Giving each child a computer would typically not produce superior learning without additional changes in the nature of the schools teaching, learning and assessment practices (Dynarski et al; 2007). Effective change would require a more holistic approach to completely transform the learning experience of the learners in most countries, school curricula and instruction are

mostly didactic based on subject-based knowledge transmission and large amount of rote learning. This ignores many skills that are increasingly necessary for life and work often fails to engage students. Of course, schools implement and work according to national standards and other learning requirements, but they can also consider more effective teaching and learning strategies and encourage student-centered learning and assessment processes (National Research Council, 2005)

The purpose of this study was to identify the need to establish a more sustainable culture of innovation. It was to emphasize the need for educational system to create and sustain the culture of innovation, especially in Nigeria. It was to encourage the school administrators to show leadership in innovation. The school system needs to generate new and worthwhile ideas, knowledge in the face of growing of knowledge all over the world. This study therefore examined: innovation as a tool to transform education, innovation a leadership task, creating and sustaining culture of innovation, and challenges of innovation

METHODOLOGY

This study is a research that dealt extensively on review of literature, observations and personal experience as a researcher and an educator.

Transforming Education through Innovations

The development and transformation of education has been a great challenge in this millennium. National policy on education in Nigeria has adopted education as an instrument for effecting national development (Federal Republic). There is no doubt that education is central to the development of individuals and the society in general. There is a tremendous development in technology, which has necessitated constant technological change and innovation. Transforming education in the face of new technological change and innovation is imperative. The challenge for education in this millennium is the need for innovation in creating adaptable approach, which enhances young people's lives within the school and their future employment.

Innovation is defined as incremental, radical, and revolutionary changes in thinking, products, processes, or organization (Wikipedia). In the organization context, innovation may be linked to performance and growth through improvement in efficiency, productivity, quality, competitive positioning, etc. Innovation is also viewed as intentionally bringing into existence something new that can be sustained and repeated and which has some value or utility (Selman n.d). A distinction is made manifest, and innovation ideas applied successfully (Mckown, 2008). Fagerberg (2004) also distinguished between innovation and invention. He said, invention is the first occurrence of an idea for a new process, while innovation is the first attempt to carry it out into practice. Innovation is typically understood as the successful introduction of something new and useful. It appears people equate innovation with change. Change is happening every time whether we are aware of it or not. It can be difficult to differentiate change from innovation. According to business literature, an idea, a change or an improvement is only an innovation when it is put to use and effectively causes a social re-organization.

Innovative and its manifestations and attempts have been visible in all spheres of education system and practice. Information and communication technology (ICT) in education has brought lots of technological changes and innovations. Innovations in term of teaching and learning, open distance learning, blended learning, collaboration learning and student centre learning. Computer aided learning not only used as an instructional material but also as a tool and learning facilitator. Technologies are keys to transforming the learning environment. Too often technology is "bolted on" and not integral to enhancing and assessing learning within schools. Schools need access to technology for all students and teachers in order to support anytime, anywhere, learning, personalization and 21st century skills (Microsoft). Innovation attempts to introduce student-centre, problem-based learning and technology-rich

learning environment have not succeeded because they collided with existing, and sometimes outdated assessment practices, or because professional development for teachers and leaders was underemphasized (Roschelle et al., 2008). Educator are faced with the task of creating an environment that can harness and create the wisdom and intellect of their teachers and staff. The key is to create schools that are built in collaboration, which can be assembled to harness their combined talents into innovations. Education is an ever-changing bureaucracy and school should not just deal with change, they must come to expect and even welcome change. It must be embedded into the culture of a school. "Innovation today is a continuous process of small and constant change, and it's built into the culture of successful organization". Keith Sawyer in his book "The social psychology of organizing", Karl Weick suggested what he called "loosely coupled organizations. Bringing staff members together who needed into loosely coupled teams that innovate, create, and develop solution for the school. The benefit in a loosely coupled organization is much more innovative than carefully planned organizations.

Innovative lab was perceived as a strategy to enhance innovations in organizations. Innovative lab was describe by Keith Sawyer as a school site in which staff members or departments or other areas volunteer to use the collaborative leverage of the group to innovate ideas and solutions to improve instruction, management, and the operation of the school. All stakeholders in the school: teachers, counselors, psychologist, administrators and parents collaborating to meet the needs of the school. The innovation lab is faster at solving problems and innovating because of the combined cross functions represented on the team. Instead of running an idea by various departments or concerned persons after the fact, why not include them in the development of the idea. Innovation labs can experiment with a high number of ideas and innovations because those required to work together to implement the innovations are communicating in real time, not in their different apartment after the fact. As he says, "learning is not workshops and courses and strategic retreats. It is not school improvement plans or individual leadership development, these are inputs. Rather learning is developing the organization, day after day, within the culture."

Creation and Sustenance of Culture of Innovation

Innovation process requires a school culture that is dynamic, forward looking and empowered. According to San Francisco and Joss-Bass (2008). The six secrets of change, one of the elements of successful change is understanding that learning is the work. Culture is the playing field for all innovation projects and activities while innovations is for the sake of creating values or lofty vision, the

organization must be fertile for the seeds of ideas and solution to grow. Innovative culture could be described as the way members of organization behave and perform their job in effort to invent or create their experience. It refers to the usual attitude, belief, value and perception of people towards facts, knowledge, ideas for the improvement and creating development of existing situation.

In organizational context, innovation is viewed as intentionally bringing into existence and practice something new, so as to enhance performance and growth through improvement in efficiency and effectiveness. Innovation involves people implementing ideas that are new value. The school system has embraced series of variables in which culture of innovation could be made manifest. The innovative culture embraces teaching and learning strategies, pedagogy, instructional resources, technology in teaching and learning, ICT in administration, student administration, teaching and learning evaluation, resourcefulness, improvisation, instructional technology, counseling strategies. Innovative fundamentals must be used to create and sustain a culture of innovations. The fundamental principles of innovation include: challenges, focus, creativity, communication, collaboration, completion, contemplation. Innovation, by definition, means doing things differently, exploring new territory, taking risks. The bigger the challenge and the commitment to it, the more the energy efforts of innovation. All innovation should be focused on creating value, there should be; interaction and understanding of the needs in the system, the better stimulators of new possibilities and the motivation for implementing them. Denning identified two kinds of practice contributing to a culture of innovation. One is organizational process: management values, rewards, prohibitions, encouragement of new ideas, encouragement of risk-taking, and the like. The other one is personal practices without which, it is very hard to get organizational practices to work. The first part of the innovation process is seeing an opportunity. You need to train your awareness so that they may become innovations (Jenni 2009). Since humans are creative thinkers and group comprise humans, a culture of innovation needs to motivate the groups and individuals to think creatively. The most viable of those creative ideas are not implemented, the organization may be considered creative but it would not be an innovative organization. Thus to achieve a culture of innovation you need both creativity and innovation. The culture of innovation comprises of ingredients for its sustenance, if top management do not embrace innovation, they can hardly expect their employees to do so. Trust is identified as one of the most crucial ingredients to a culture of innovation. If people trust management, then colleagues and the organization itself, they can be more comfortable about sharing ideas without fear

of unpleasant consequences. Creativity and innovation have to take priority over excessive long meetings, reading irrelevant mails and other tasks that take priority in non-innovative organizations. Employees should constantly be experimenting with new ideas and reporting on results whether negative or positive. Employees must have the freedom to make mistakes, the opportunity to learn from them and the means to share what they have learned without fear of consequences. In culture of innovation, creative ideas are always recognised and rewarded and creative thinkers are challenged to improve their ideas so that they are more likely to become profitable innovators (Jenni 2009).

The Issue of Leadership in Innovation

Leadership is the influence exercise over others in coordinating their behaviour, and activities so as to facilitate the accomplishment of the goal of organization. Innovation and leadership are closely related. Leadership always set pace and has some focus on bringing about a better future. Whether in discussing about leadership or innovation, the concern is about accomplishing some sustainable change whether large or small, continuous or breakthrough. While leaders and innovators participate in both kinds of change, leadership has always occur in a context of some intention to create the break through, to break with status quo. Both leaders and innovators change the context, paradigm or frame of reference of the innovator or leader and those who have a stake in the innovation. However, another distinction between leaders and innovators comes from the observation that leaders actions exist within a context of going relationship with other human beings (Selman n.d).

Leaders as Innovators

Leadership influence should occur in a way that generate innovation. Leaders remain stimulators of innovation by offering incentives to workers, creating an environment and setting expectations in form of innovative culture. Leadership is to display clear authority with little bureaucracy. Leaders must remain open and receptive to what comes their way in the form of new ideas in order to capitalize on opportunity, and then seize these opportunities. Hard work plays a prominent role in innovation. According to Linneman "it's just all hard work. Henrickson believes in internal development as the passport to innovation

Leadership and innovative abilities

A key to organizational innovation is collaboration. Great ideas are the result of collaborative development of ideas by multiple individuals and teams (Jenni, 2009). Innovation requires development not only for individual creativity alone, but creating a sustainable innovative environment. This is a leadership task. In order to succeed at this task,

leaders must develop innovative abilities and develop them in constituents. These are called innovations fundamentals. They must also be able to create and sustain a culture of innovation by using these fundamentals to maintain key organizational dynamics. Leaders must be able to identify and overcome the basic barriers to innovation, apply prototyping principles to organizational innovation; and maintain a culture of continuous play. Creating an innovative culture is without doubt a leadership issue, an aspects of quality leadership (Meredith).

Circumstances Surrounding Innovation:

There are lists of circumstances surrounding innovation, which leaders should take into cognizance.

Resistance to Change

Probably the most common way people relate to change is to resist it. It can be resisted by disagreeing with a new policy, resistance can be overt or covert. We can procrastinate, argue, rationalize or even sabotage a change initiative simply by ignoring it. All forms of resistance are “counter-innovative and thwart human intentionality to create or own change. Resistance gives power to status quo or cultural inertia that by its nature persist. Leadership in this context is exercised through ‘opposition’ to the circumstance in most organizational or cultural changes initiative. The prevailing rational is that the status quo is broken needs to be fixed. The leadership is resisting the way it is and in a well-meaning way is attempting to fix it. The problem is that these initiatives are rarely effective because everything being done to change something is being resisted. This is how many issues persisted even when there is widespread agreement that something should change.

Coping strategies

In organization, people may result to coping strategy in innovation. Coping might be viewed as a positive alternative to resistance, as the coping person works within the circumstances effectively. Energy expended in resisting is now re-directed to problem-solving and designing ways to overcome barriers to accomplishing one’s intention. Coping can drive innovation, but only as a re-action to the circumstances, not as an intentional force in creating new circumstances. It is argued that successful coping solution will often thwart and even undermine attempt at further innovation in a coping context, leaders will typically be arguing for and justifying whatever limitation seem to exist and encouraging ‘work around’ or in spite of strategies for getting things done. While this can be positive and produce results, the leader within case becomes a well meaning and ‘co-conspirator’ for individual and organizational limitations.

Mastery in innovation:

Mastery creating the context for change, the circumstance of distinguishing the rare ability that a few people have demonstrated to invent entirely new fields of inquiry, these people are creating new domains, new openings, and new possibilities for others to explore and innovate. This is a very distinct way of relating to circumstances in which the ‘creator’ is the author of the context in which the creator is relating to create a context means to be responsible not only for what is being perceived, not only for one’s responses, not only for a generative relationship to the circumstances, but to be responsible for creating the background or space within which the circumstances appear. To become a master of innovation, a person must own both what is happening as well as what is not happening. Leadership in a context of mastery is often very modest and may seem effortless or so natural as to seem inconsequential at the time leaders who live and work in mastery context are constantly inventing or creating their experience, in this sense they are always beginners, learning and creating in each moment. (Selmen).

Challenges in Innovations in the Schools

Environmental Factors

Environmental factors play a significant role in innovation. An environment that is empowering and flexible welcomes ideas, tolerate risk, celebrates success, fosters synergy and encourages fun is crucial. Creating such a climate may also be the biggest challenge facing all organizations wanting to be more innovative.

Innovation and Goal Definition

Innovation requires effective goal definition. Effective goal definition requires that organization state explicitly what their goals are in terms understandable to everyone involved in the innovation process. Effective alignment of action to goals should link explicit actions such as ideas and projects to specific goals participation in teams refer to the behaviour of individuals in and of teams, and each individual should have an explicitly allocated responsibility regarding their role in goals and actions and the payment and reward system that link them to goal attainment. Effective monitoring of result requires the monitoring of all goals, actions and teams involved in the innovation process.

Inadequate Leadership Guidance and Innovation

Leaders as pace setters should take the initiatives in innovations in education. The dynamic nature of education desires this initiatives and effort. The leaders exercise influence in the organization focus and development. Inadequate guidance and orientation have been a great challenge to development of culture of innovation in schools.

Poor Attitude to Research Outcomes

Researches carried out in education were not adequately utilized (Akomolafe, 2000). Non-utilization of research outcomes seems to constitute hindrance to developing culture of innovation. Researchers have made a lot of suggestions and recommendations which were rarely implemented.

Motivation for Performance

Innovation succeeds from strategic structures that engage the individual to the organization benefit innovation pivot on intrinsically motivated individuals, within a supportive culture, informed by abroad sense of the future.

Innovation Failures

Innovation could experience failure. Innovation that fails, are often potentially 'good' ideas but have rejected or 'shelved' due to budgetary constraints, lack of skills. Organizations can learn how to avoid failure when it is openly discussed and debated. Some innovation failures are due to both internal and external causes. The external causes are outside its influence of control. Internal causes are internal and ultimately within the control of the organization. Internal causes of failure can be divided into causes associated with the cultural infrastructure and causes associated with the innovation process itself. O'Sullivan, (2002) identified common causes of failure innovation as: poor leadership, poor organization, poor communication, poor empowerment and poor knowledge management. Likewise common causes of failure within the innovation process in across organizations can be distilled into five types: poor goal definition, poor alignment of actions to goals, poor participation in teams, poor monitoring of results and poor communication and access to information.

Funding

Funding of education has become a perceptual problem in educational system. The financial problem has always be a recurring decimal in all facet of educational system. The problem of funding has reflected infrastructural facilities and also in innovative attempts in education. Education requires adequate funding to enhance innovative efforts and required resources.

CONCLUSION

Education system desires innovation in teaching and learning, and assessment practice. The environment that can harness and create wisdom and intellect of the teachers should be created. There is need to create schools that are built in collaboration which can be assembled to harness their combined talents into innovations. There is need for school organization to encourage new practice that generate more value to members, ensure wholistic approach to transform learning experience of learners, and leaders should

live up to their responsibility in setting pace for innovation. There is need for innovation to be a continuous process built into culture of successful organization. School culture of innovation is to enhance and sustain; school quality, productivity and efficiency. Innovation requires development not only for individual creativity alone but creating a sustainable innovative environment.

RECOMMENDATIONS

1. The schools should create and maintain the culture of innovation,
2. Leaders should take the lead in creating innovation culture in the school system.
3. Individual should take it upon himself/herself the responsibility of becoming a master of innovation so as to constantly inventing or creating experience.
4. School authority should develop good attitude to research outcomes, so as to make use of relevant research outcomes to sustain innovation culture.

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