VOL. 08 NO. 1,
MAY, 2025
E-ISSN 3027-1533
P-ISSN 3026-8648

African Scholar Publications & Research International
www.africanscholarpub.com

Journal of African Innovation & Advanced Studies (JAIAS)

Innovation Culture in Education for National Integration

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DOI: https://doi.org/10.70382/ajaias.v8i2.032

Abstract

This paper looked at innovation culture in education for national integration. The education system in the 21st century has focused on innovation as a tool that revamps the traditional educational system. The need for quality improvement in the curriculum and the desire to produce students with 21st-century competency skills have made innovation the core emphasis in the educational context. Hence, school cultures that support innovation should be developed and encouraged extensively for national growth, development, productivity and integration. National integration is the creation of feeling of oneness where diversities are recognized and respected by absorbing a sense of nationhood. The paper discusses innovation culture in education, national integration, elements of national integration efforts in Nigeria. The paper further discussed the areas of national integration in education, problems of national integration and the themes that emerged in sociocultural norms were; the individual personality, interaction, collaboration and teamwork, support, leadership of a teacher as well as approaches for the construction of innovation culture in schools.

Key Words: Innovation culture, Education, School, sociocultural norms, National integration

Introduction

Nigeria as country rich with different cultural heritage and background believe highly on its tradition, beliefs, norms and value system and respect for elders. According to Ozurumba in Okeke and Nwagbara (1997: 247), education is the process of developing the totality of the individual, intellectually, physically, socially, morally, spiritually and psychologically, so as to enable him live an effective and meaningful life and to be able to contribute towards the development of the society in which he finds himself. Education therefore holds great importance as it shapes our perspectives and ideas. Nigeria has been fortunate to have exceptional educationalists both before and after independence. School teachers play a crucial role in influencing young minds in the country. Over time, historical figures and iconic slogans have become ingrained in our collective consciousness.

The generations have changed and so have the requirement, the world is moving at a breakneck speed and it is necessary not only to work hard but to work smart as well. For this reason, the schools need to have a culture of innovation where it is more relevant for the students to know what to do beyond what they know. In an era where people can Google most answers from their phones it is more important to not only be a problem identifier but a problem solver too. Many teachers long for a structure for their planning and a way to ensure that. While they are innovating their curriculum they are also meeting the requirements and standards of the day. The education system in the 21st century has a big focus on innovation as a tool that revamps the traditional educational system. The need for quality improvement in the curriculum and the desire to produce students with 21st century competency skills has brought innovation at the core of the educational ecosystem. Hence, school cultures that support innovation should be developed and encouraged extensively. Pedagogical practices should be geared towards teaching children to think in ways that lead to innovation. Forming attitudes that are constructive to learning instead of test taking should be the goal of every school and the educational system.

Innovation, which is the implementation of creative ideas, is a necessary process for organizations in competing at a global platform within this 21st century (Kremer et al., 2018). An organization that utilizes innovation in related operations can improve organizational efficiency, productivity and competitiveness (Manafi and Subramaniam, 2015). Within the education industry, the conventional education system has since transitioned to incorporate a more technologically advanced system that integrates the 21stcentury competency skills. This form of innovation in education is vital to improve the learning results, the quality of education delivery, the equity and equality and the efficiency, also reducing educational costs and maximizing incomes from education expenses.

Innovation is the introduction of something new, or changes of doing or seeing things (Rubio, 2012). This ‘something’ could be ideas, behaviors, knowledge, skills,

products, services, processes, methods of production, or management systems. As technological innovations are more observable (such as new machines, equipment, and tools), non-technological innovation is more abstract, less obvious, and slightly difficult to grasp. This type of innovation includes organizational innovation, management innovation, and marketing innovation.

The study reinterpreted the concept of "innovation". Innovation is a complex, creative and unsafe process of change in the innovation culture, the existing knowledge on the implementation and commercialization of the best in its properties to the products. It is established that in the modern institutional environment the emergence of innovative breakthrough is possible only at formation of innovative culture of the population that is a priority and a major accelerator of development in a purposeful state innovation policy. The issue in innovation is not simply the need for change, but the need for a change that will have a significant positive impact on the system. For an educational innovation to have impact it must be grounded in confirmed teaching and learning theories and pedagogical practices. Such innovation must also be regularly assessed for effectiveness in achieving its' stated objectives.

National integration is the situation whereby citizens of a country recognize a common identity amongst themselves. Although belonging to different religions, tribes, speaking different languages, recognizing the fact that they have been brought together to become one. This is very important for nation seeking peace and development. National integration is of utmost necessity for the development of a nation. Unity in diversity is the necessity to exploit each other's ability. The aim of national integration is to bring people together, it makes their bond stronger, to collect ideas that are distinctive for development. Thus, bonding us together to become a developed country.

National integration portrays the desire of unity people feels for their own nation regardless of personal differences, with respect to culture, race, tribe or region. National integration in regards to a nation means uniting different groups of people to ensure cooperation and harmonious living. Education is something that plays very important role in national integration. It can unite the people and create a bond which will be strong enough to overcome any challenge faced by the country, be it economic or political. It provides people with knowledge that is very essential for national integration. Education brings uniformity among people of the country and helps them to differentiate among things that play a role in their life.

INNOVATION CULTURE IN EDUCATION

Education is the process of developing the entireness of the individual, intellectually, physically, socially, morally, spiritually and psychologically, in order to enable him live an effective and meaningful life and to be able to contribute to the development of the society in which he finds himself. Culture of innovation in education refers to environment that encourages creativity, experimentation, and forward-thinking approaches to teaching,

learning and administrative situations. It foster adaptability, embraces technology and promote continuous improvement to meet the growing needs of students and society at large. Thus, the acquired knowledge, perceptions and experience of purposeful human learning, aimed to transform the environment and itself, the invention and introduction of innovations in different spheres with the aim of improving the welfare and intellectual development is what is also understand to be innovation in education. Nevertheless, it is a free creation of the new with adherence to the principle of continuity. Therefore, for an operative and well-organized inculcation and fruitful practice of innovation culture in education the factor of sociocultural norms has to be graciously and holistically considered.

Sociocultural Norms

Sociocultural norms are the set of values, beliefs, customs and behavioural norms that are found in a group of people or a social group within the environment of the population. Underlying sociocultural forces have inevitably shaped institutional curriculum innovations (Dahlberg and Moss, 2005; Li and Chen, 2016). Bezhanova et al. (2019) have stated that innovation culture can be a result of social interactions that are transmitted through training, behaviours, standards, settings, orientations of values and multiple contacts among groups of people. Other forms of social aspects such as manners of dressing, symbols, styles of management, ethics of relations, ceremonies, languages or communications can also affect innovation culture (Bezhanova et al., 2019). Meanwhile, Lee and Hung (2016) have listed four enablers of sociocultural dimension in curriculum innovation, which are (a) school leadership that creates an opportunity for socio-technological provisions among teachers to experiment and innovate; (b) learning contexts that refocus the curriculum, pedagogy and assessment in the classroom; (c) learning communities in building teacher capacity; and (d) historicity for developing adaptivity. However, this review has categorized sociocultural manner as the individual personality, interaction, collaboration and teamwork of a teacher as well as support and leadership.

Based on the context of individual personality; teacher beliefs, opportunity, competency and progressivism are the essential sociocultural norms. Teacher interaction between cultural and structural factors can change teacher beliefs in the new curriculum. A study by Wallace and Priestley (2011) has investigated the sociocultural factors that underpin curriculum changes by examining teacher beliefs in the context of professional development. Results show that the administrators of the district must allow teachers to create personal reformed methods in the school curriculum as the congruency between teacher beliefs and the philosophy of the new curriculum encourages teachers to be innovative in the classroom. Teachers with strong personal beliefs can boost their confidence through experimenting, making changes in the pedagogy, morphogenesis and enhanced potential cultural and structural practices. These results are supported in a study

conducted by Feixas et al. (2018), which argue that teachers would feel capable, confident and self-assured to implement the new teaching pedagogy when they are able to overcome any problems that limit the use of the latest knowledge and abilities. Teacher beliefs have a strong correlation to the opportunity given by the principals, communities or stakeholders. Thus, the development of innovation projects in the curriculum will help educators to change their teaching practices according to the learning conditions of the students. Burnard et al. (2007) have also asserted that teachers place a high value on the opportunity given to reflect on teaching pedagogies and to share opinions with other teachers. Teachers believe that participation in innovative teaching methods can help their students think creatively. Similarly, Lee and Hung (2016) also find that teachers will refocus pedagogy, curriculum and assessment practices in the classroom when given the opportunity, which encourages them to address challenges in innovations and foster learning adaptivity.

Teacher competency is also a characteristic that is emphasized within the context of individual personality. Individuals with higher innovation cultures have been proven to have higher competency skills (Bezhanova et al., 2019). According to a study by Meissner and Shmatko (2018), the most demanded competency skills are professionalism, continuous improvement, assertiveness and endurance. Hence, teachers with personal effectiveness competency can develop leadership skills and increase mutual trust in oneself and others to perform efficient teamwork. As a result, teachers who are involved in a continuous learning environment for improvement will also be aware of risks and failures. On the other hand, the general professional skills, which is sharing and exchanging information and knowledge, need to be developed further for an innovation culture to take place, which includes a critical competency skill required by teachers; the ICT skills. A study by Waring and Skoumpopoulou (2012) finds that the integration of new innovative systems in the university can change the skill sets required for the job. This result is supported by a study conducted by Boer and Asino (2018), which has observed staff being employed based on competency in ICT skills rather than interpersonal skills and ability to work with students. Hence, teachers who are weak in ICT skills will limit their participation in innovative pedagogy approaches. Another value in individual personality among teachers is progressivism. Yang and Li (2018) find that being progressive is a philosophical foundation in the implementation of new curriculum innovations, whereby progressivism places teachers as guidance to solve students' problems.

APPROACHES FOR THE CONSTRUCTION OF INNOVATION CULTURE IN SCHOOLS

Constructing or creating innovation culture in schools means to create structures and processes that make innovation a habit not only to teachers and principals but to the

students themselves. Construction of successful innovation culture in school demand among other things what is called social interaction. Social interaction has an impact on innovation culture (Bezhanova et al., 2019). The aspects involved within social interaction include behaviour, training, standards, settings, multiple contacts among groups of people, manner of dressing, symbols, system of values orientation, style of management, communication, ceremonies, language, ethics or labour relations. These aspects are found to be prominent in solving complex pedagogical issues that some organizations find challenging to solve. According to a study by Davydova and Dorozhkin (2016), interaction among colleagues can help solve a common problem, with multiple methods developed as a result of the communication. Besides solving issues through the exchange of resources, teachers can allocate new pedagogical positions to participate in network interaction, search for other mechanisms to promote innovative educational programmes or network groups as well as support activities from municipal and regional authorities within the social network. Similarly, Feixas et al. (2018) also believe that interaction between academics will provide them with the space to explore conceptual alternatives to improve their capabilities and discover new learning instruments. A study by Duygulu et al. (2015) also reveals that innovation culture is a multidimensional construct that resulted from the interaction between innovativeness and corporate culture. These constructs are learning and development, knowledge sharing and open communication, social networks and external cooperation, tolerance of mistakes, allocation of free time, managing differences, rewards and incentive systems as well as teamwork.

The interactions among government departments, universities, firms and organizations have been mentioned by two studies that used the Triple Helix and Penta Helix model as a framework to promote innovation culture in the country. Altaf et al. (2019) have applied this framework in a study to improve interactions among university, industry and government in developing an innovation culture within Pakistan. The study has revealed that an active interaction exists between the university, the industry and the government to foster innovation culture in the country. Moreover, further results show that the functions and organizations of underlying factors are different in every developing country, which requires less responsibility from the government but a more prominent role from the universities. However, this Triple Helix model used in the study has been criticized by Halibas et al. (2017), who argue that the use of this model in social innovation will hinder the innovation in an organization. Therefore, the Penta Helix model has been proposed to examine the interaction between institutions, which consisted of public institutions, private institutions, academes, civil societies and social entrepreneurs. According to Halibas et al. (2017), this model will shift the social innovation of various sectors of society to share common goals using unique skills and resources that can overcome societal challenges. The government, on the other hand, will play a role in promoting and supporting the innovation system through public investment in research

and development, knowledge infrastructures, public innovation policy and support for innovation network and public–private partnerships. The industries can then support the research funding of HEIs, product development and commercialization. Lastly, HEIs will enrich industries with new technologies and research. Besides, NGOs and civil society can also engage in social and economic development through active participation in regional development programmes.

Collaboration is one of the characteristics in innovation culture, which has been widely mentioned in all the studies for this review (Altaf et al., 2019; Burnard et al., 2007; Feixas et al., 2018; Hung and Hong, 2017; Wallace and Priestley, 2011). Feixas et al. (2018) have stated that collaboration among colleagues who believed in the usefulness of new approaches would facilitate innovation, strengthen cooperation and interaction among academicians and offer a space for exploring conceptual alternatives to improve skills and discover new learning tools. Burnard et al. (2007) have demonstrated that when teachers have the opportunity to work collaboratively, more innovative ways to solve problems in teaching will be developed. This result is further supported through a survey by Wallace and Priestley (2011), who suggest that teacher collaborative inquiry groups, or better known as professional development, can bring teachers to view themselves as theorizers, experimenters and school leaders (Zellermayer and Tabak, 2006). Teachers will also initiate changes in the pedagogical methods based on the teaching strategies suggested by their colleagues (Meirink et al., 2009). Hence, teachers would be more willing to collaborate in creating the curriculum, which fosters a sense of ownership towards shifting classroom practices (Hinden et al., 2007; Priestley et al., 2010). Multiple evidence has also shown that collaborative work among teachers leads to a lasting impact in schools (Leat et al., 2006). This form of interaction will lead to the development of a competent team that is multidisciplinary (Vick and Nagano, 2018; Wallace and Priestley, 2011) and dynamic (Zhang et al., 2018), which facilitates the innovation culture further through effective teamwork (Duygulu et al., 2015).

Another crucial finding in the review of these articles is the support given to teachers that facilitates innovation culture. Support comes from the government, firms, community, peers, district managements, environments, ministries or even policies and programmes. Altaf et al. (2019) have stated that the role of the government and firms is crucial to support innovation in educational institutions. Although universities have made a great effort to promote innovation, the weak performance from the government and firms in supporting innovation has a significant impact on the weak innovation culture in schools. This issue can be caused by firms struggling to find collaborative partners and the government only acting as an observer. Besides, the government has not been monitoring the policies and programmes implemented to initiate the innovation culture. Zhang et al. (2018) argue that the support given by the government and ministry to the principal creative leadership would foster the innovation culture in the institute as supportive policies and practices are

essential to encourage innovation activities. Hence, teachers can innovate once they are supported by peers and district educational management (Wallace and Priestley, 2011). On the other hand, the support given by the community and peers also helps teachers to communicate and share findings and experiences of experimentation, besides being provided with peer and mentoring support (Lee and Hung, 2016). Zhang et al. (2018) argue that the low level of community engagement and the level of substance use around the school neighborhood are the biggest obstacles to nurture innovation culture in schools. This support encourages teachers to redesign the pedagogy and develop adaptivity in innovation. Feixas et al. (2018) also assert that the combined supportive environments and collaborations will also support leadership and recognition among teachers, which can contribute to enhanced professional development among team members. As the monitoring of the innovation projects would be intensive, the effectiveness of these innovative programmes would increase. Hence, a supportive environment involves the peers, the leaders, development staffs and the community (Feixas et al., 2018; Wallace and Priestley, 2011; Zachopoulou et al., 2006; Zhang et al., 2018).

However, Feixas et al. (2018), Lee and Hung (2016), Sipe (2019), Midthassel (2004), Midthassel et al. (2002) and Zhang et al. (2018) have all agreed that another essential determinant to innovation cultures in education is leadership. Lee and Hung (2016) stated that school leadership could create socio- culture of the schools. The support and close monitoring that is given by leaders in the innovative programmes, however, will enhance the professional development of team members and increase the effectiveness of the programmes (Feixas et al., 2018). Teachers have also perceived that principals who are actively involved in school development activities have a strong correlation to innovation cultures (Midthassel, 2004; Midthassel et al., 2002).

National culture and innovation in education

National culture plays a vital role in influencing the innovation culture. The creativity and innovation at the national level refer to the ability to create, develop and implement new or improved products, services and processes that can add value to the people (Lundvall, 2010). Hofstede introduced the cultural dimension's theory in 1980 to understand the differences between cultures across countries. There are four dimensions within this theory, which are power distance, individualism, masculinity and uncertainty avoidance. According to Hofstede and Minkov (2010), power distance refers to differences at a hierarchical level between members in the society, while individualism relates to the orientation of values in an individual or group in terms of goals and rights. Masculinity is associated with the orientation of the society towards interpersonal relationships, and uncertainty avoidance is referred to as the cultural tendencies in avoiding activities that may lead to unwanted outcomes.

Tsegaye et al. (2019) have studied the impact of culture and economic growth on the creativity and innovation of 80 countries based on various fields such as economic, agriculture, financial and education through the use of the framework. The result shows that the dimension of power distance and individualism have a strong and positive correlation to creativity and innovation among the nations. In contrast, masculinity has no significant impact on creativity and innovation. Further investigation shows that when power distance is higher, the flow of information in the institutions will be limited. Nations with a higher score in the dimension of individualist have higher creativity and innovation compared to nations with a higher dimension in collectivist. Although insignificant, the dimension of uncertainty avoidance has an impact on creativity and innovation, which is discovered in Germany, with the highest uncertainty avoidance and high scores in the capacity to implement creative and innovative activities. The interaction between economic growth and individualism has a significant impact on creativity and innovation among the nations, which suggests that the impact on the level of culture innovation diversifies according to the level of economic growth among the nations.

A nation with a high power distance tends to apply intense supervision and control towards the process, which will restrict society from creative ideas (Runco, 2014). A nation with rigid rules and regulations will be likely to have lower innovation than countries with low power distance (Grinstein, 2007; Martins and Terblanche, 2003; Shane, 1993, 1995). Moreover, the role of the principal is different in each state, whereby the authority, delegation and technological provisions for teachers in experimentation and innovation. According to the study, a principal who persuades teachers to innovate will tend to cultivate deep pedagogical understandings for distributed leadership and build networking with stakeholders to alleviate the pressures for teachers to innovate. Teachers will work with communities, stakeholders and researchers to implement innovations that are focused on academic developments and 21st-century competency skills among students. The study by Zhang et al. (2018) has focused on the creative leadership skills by principals in promoting innovation culture in schools. Results from the study yielded that principals need to strengthen the creative leadership due to the relationship between quality work among individual teachers and teams with the general responsibilities granted may vary (Moos, 2000). A study by Midthassel (2004) has also found that within the flat school management structure of Norway, principals are unable to give teachers instructions. Instead, principal's alert teachers to the importance of innovation in teaching and learning processes and encourage active participation in innovative activities.

The dimension of individualism in Hofstede's theory on the values and rights is found to benefit individuals more than groups of people, which is the opposite from the collectivist culture. According to Hofstede and Minkov (2010), nations with high individualist culture will have higher innovation than countries with higher collectivist culture. The dimension of masculinity in Hofstede and Minkov (2010) theory refers to the orientation of the

society towards interpersonal relationships. The masculine culture emphasizes the achievement of tasks and successes by members, while feminine culture places greater emphasis on interpersonal relationships than personal success. In theory, the domination of the masculine culture would encourage innovation, but existing empirical studies have proven that this dimension does not have a significant impact on the innovation of a country (Shane, 1993). Based on the dimension of uncertainty avoidance, which refers to cultural tendencies in avoiding activities that may lead to unwanted outcomes, countries with substantial uncertainty avoidance could not support innovation activities (Efrat, 2014; Martins and Terblanche, 2003). Innovation is well-known for hard-to-predict features, and high risk of failure, which is the reason for this culture to prevent innovation from flourishing. This argument is further supported by a study conducted by Tsegaye et al. (2019) that proves this dimension of uncertainty avoidance does not encourage innovation in education.

Elements of National Integration Efforts in Nigeria

The Federal Republic of Nigeria (NPE; 2013: 1) states that "education is an instrument for national development and social change" and "education is vital for the promotion of a progressive and united Nigeria". What is a united Nigeria? This is a Nigeria where National integration is operational. What is social change? Social change implies innovation. Sincerely, innovation, culture and education are essentials for national integration.

Areas of National Integration in Education

The concept of integration is "the synthesis of the various ideas theories, principles and techniques of other disciplines used to establish a unique and systematically developing body of knowledge" Ogunsanya (1993) as cited in Whyte &Yeloah 1998. National integration is the situation whereby citizens of a country recognize a common identity amongst themselves. Although belonging to different religions, tribes, speaking different languages, recognizing the fact that they have been brought together to become one. This is very important for nation seeking peace and development. National integration is of utmost necessity for the development of a nation. Unity in diversity is the necessity to exploit each other's ability. The aim of national integration is to bring people together, it makes their bond stronger, to collect ideas that are distinctive for development. Thus, bonding us together to become a developed country. National integration portrays the desire of unity people feels for their own nation regardless of personal differences, with respect to culture, race, tribe or region. National integration in regards to a nation means uniting different groups of people to ensure cooperation and harmonious living. Education is something that plays very important role in national integration. It can unite the people and create a bond which will be strong enough to overcome any challenge faced by the country, be it economic or political. It provides people with knowledge that is very essential for national integration. Education brings uniformity among people of the country and helps them to differentiate among things that play a role in their life. Additionally, all this can never be successful and sustained without the help of innovation

culture in the education. It therefore means that education must braze up to be much more functional and innovative for the realization of national integration.

PROBLEMS OF NATIONAL INTEGRATION

Though national integration would be beneficial to the building of the nation, it still faces some problems which if not solved would leave no room for success. Some of these problems include:

Tribalism and Nepotism- The Nigerian society consists of many tribes. some people have been found to show favoritism towards their tribes irrespective of whether the other tribesman is more qualified. This unfair attitude can cause conflict between tribes and thus impedes the path of national integration.

Religious violence- There have been many cases of religious violence in the country due to religious difference. These conflicts come as a result of inability to accept people's beliefs and thereby breaking apart the unity necessary for national integration.

Language differences- Nigeria has over 400 languages. This is seen as a problem among the citizens of the country. This causes difficulty in communication as well as lack of co-operation. Those who speak the same language usually tends to stick together leaving those with different tongues to form their own groups. This causes disunity and national integration and development will be hindered.

Ethnic Diversity-Nigeria is made up of various ethnic groups and the members of these ethnic groups tend to be loyal to their people in positions of authority. This means that some members of the society are more favored than others of different ethnic groups.

RECOMMENDATIONS

From the foregoing the following recommendations are made:

1. system of education should make innovation to be a culture that can be sustained as part of its educational activity.
2. schools' leadership should create and maintain the culture of innovation
3. students should be encouraged to engage actively in in-class and outside-the-class knowledge sharing activities that are innovative for future endeavors after school
4. innovation culture should be part of the curriculum
5. innovation culture in education should be regarded as one of the parameters for building and sustaining national integration

CONCLUSION

For an individual, a nation, and humankind to survive and progress, innovation is essential. Lack of innovation can have profound economic and social repercussions. Innovations in education are of particular importance because education plays a crucial role in creating a sustainable future. It can be said that innovation is must to improve school equality and

quality, to develop 21st Century Skills among students, and create contributing citizens for the future. It is central for us to make our education system consistently innovative and focus educational innovations on raising the quality of learning at all levels. It is indeed challenging but essential and cannot be ignored any further. In many ways, education stands to benefit the most from both utilizing and teaching innovation in schools. By exploring new and better ways to educate students and also teaching the students the skills need to become educators themselves, todays' educators can have a tremendous impact on the future of the world. Education system should create environments that promote risk-taking and new approaches. Innovation requires a certain amount of time; therefore, we must adopt policies that will give similar dedicated time and space to learn and innovate in schools to enable us pursue new ideas that may prove successful.

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