

# Contributions by Learners in the Development of Technical Education in Public Tertiary Institutions amidst Covid-19 Pandemic: The Case of Polytechnic Education

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## ABSTRACT

In a developing country such as Nigeria, technical education, and innovation is recognized as a key force for modernization and development. This paper is about the contributions by learners in developing technical education and innovation in public tertiary institutions in Nigeria amidst Covid-19 pandemic. The paper examines the learners' purpose of acquiring technical education, the basis for the selection of course of study, the assessment of the quality of technical education, learners' engagement in the development of technical education in public tertiary institutions in enhancing internal institutional quality assurance processes, the challenges faced by learners in the Covid-19 era as well as suggestions for improvement. It discusses the extent to which the introduction of more explicit internal and external quality assurance processes mitigate against the learners as a part of a cohesive learning community in favour of the learner as a 'consumer'. The paper revealed that the quality of technical education and innovation in developing countries in a Covid-19 era is influenced by socio-cultural, academic, economic, policy, political and administrative factors all of which are inextricably interwoven.

The paper suggests that quality should be considered in course of engaging learners in the developing of public tertiary institutions.

**Key Words:** Learners, Technical Education, Developing Country, Public Tertiary Institutions, Polytechnic, Quality Assurance and Covid-19.

## I. INTRODUCTION

In developing country like Nigeria, technical education institutions have a critical role in supporting knowledge-driven economic growth strategies through the engagement of learners. In Nigeria technical education is perceived as an important form of investment in human capital development. Tertiary institutions are charged with the responsibility of the formation of human capital through teaching, building knowledge base through research and knowledge development, and dissemination and use of knowledge by interacting with the knowledge users like the learners.

Learner engagement has primarily and historically been adjudged as focusing upon increasing achievement, positive behaviours, and a sense of belonging in learners. Overtime, learners' engagement strategies in technical education were further developed and more broadly implemented

as a way to manage behaviours. According to Gilbert (2007), learner engagement has been built around the hopeful goal of enhancing all learners' abilities to learn how to become lifelong learners in a knowledge based society. Learner engagement has become both a strategic process for learning and an accountability outcome unto itself especially during the covid-19 pandemic. Learner involvement strategy has been part of a wider programme of change in technical education to ensure provision meets learners' needs. Such a development can be seen as part of a broader personalization agenda which suggests that services of technical education will be improved by putting learners at the centre of any given service and understanding and acting on their needs.

In the polytechnic sector, learners have always been expected to play an active role in the development of educational process. This has traditionally been through actively engaging the learners with the teaching and learning process and through their contributions to departmental and faculty institutional quality assurance mechanisms.

The main objective of this paper is about the contributions by learners in the development of technical education in public tertiary institutions. The paper further set to identify the current trends and nature of learner engagement in technical education, and the challenges faced by learners in their bit to contribute to developing public tertiary institutions in the covid-19 pandemic era.

## II. REVIEW OF RELATED LITERATURE

Related literature in the area of learners' engagement in technical education seems to have grown in a number of ways – the greatest of which is the change from focusing upon disengaged learners (who are not learning) to engaged learners (who are learning), Taylor and Parsons (2011).

### Learners' Engagement

It is certain that educators wish learners engagement to become successful in their career. This has prompted a large number of researchers to study learner engagement in the development of technical education in public tertiary institutions. However, the related literature reviewed did not agree upon a definition of what learner engagement might be. Several types of engagement were noted - academic, cognitive, intellectual, institutional, emotional, behavioural, social, and psychological to name a few. These differences beg a number of questions. Is it possible for a learner to function in all arenas of engagement for successful learning to

take place in a covid-19 pandemic? Such question stir both the researchers' interest and the age-old question: what can our education system do to help today's learners to be engaged successfully in order to contribute to the development of technical education in public tertiary institutions?

However, one way to define learner engagement is to see how it is measured. A number of measures have been used to identify if learners are actively engaged in the development of institution's goals in a covid-19 pandemic era. To define learners' engagement, we can say that it is the process by which learners are actively used in the discharge of organization development and objectives.

### Learners Choice of Programme/Course

In technical education sector such as the Polytechnic and some other institutions of higher learning, it has been discovered that a number of factors influence learners' choice of courses. These include:

- i) Fees structure: They choose what their parents can afford.
- ii) Based on their performance in relation to Universities/Polytechnics' cut-off points and what their subject combination offers.
- iii) Peer influence and parent's choice
- iv) The government sponsored learners are compelled to do what JAMB (Joint Admission and Matriculation Board) offers them regardless of their choice.
- v) Prestige and public image also influence choice of course.

According to Bunoti (2011) the choice of programmes by learners therefore is not influenced or guided by the socio-economic needs of the country but rather by a desire to complete the education ladder and get a degree.

### Learners' Purpose of acquiring Technical Education

Generally, learners have a clear understanding of their purpose of attaining technical education. There are two basic objectives for learners to acquire technical education as was noticed.

1. They view it as a means to creating a new generation of the elite that will understand and solve problems in society, and transform it from ignorance and perpetual poverty.
2. At the individual level, they view technical education as a means of getting knowledge, skills and qualifications that will enable them to get jobs to transform their families, the

majority of which are peasants or with low income.

### Learners and Quality of Technical Education

We can look at learners' role in the quality of technical education from the following perspectives. Most learners in humanities in the university feel higher education has little value for money paid because of certain factors: too many graduates in humanities which results in unemployment; the content and teaching approach are too theoretical, resulting in training job seekers and not job makers. They argued that those in technical education such as engineering, vocational studies and sciences have a hope of competing quite favourably in the job market or being self-employed.

According to Kasozi (2006a), other factors for the assessment of the learners in the quality of technical education include: facilities, programmes fragmentation, economic, general funding and political factors.

### Roles/Contributions of Learners in the Development of Technical Education

In the tertiary institutions like the Polytechnic, learners' have always been expected to play an active role in the educational process of development. Primarily, this has traditionally been through actively engaging them with the teaching and learning process through their contributions to departmental and faculty institutional quality assurance mechanisms. As a result of these developments, learners in the Polytechnic sector now play a more central role in the governance mechanisms and national policy development of the institution in the following ways:

- i) They contribute to assuring the quality of the learner experience through the products they produced from time to time, especially during research project works.
- ii) They contribute to institutional governance and accountability mechanisms through learner representation bodies.
- iii) They help inform the choices of prospective learners by expressing their views through the national learner survey.
- iv) They are members of external institutional audit teams.
- v) Through national learner representative bodies, learners are able to express their views to government and technical education policy-makers.
- vi) They help in enhancing internal institutional quality assurance processes.

vii) With their knowledge in computer, learners are more motivated to learn, apply their knowledge to practical problems, and take ownership of their learning.

viii) By using technology, learners are developing key 21<sup>st</sup> century skills including creativity, collaboration and skills in problem-solving and critical thinking (Project Tomorrow, 2010).

ix) They use technology to gather information, analyze information, and share same to higher institution's authority.

x) Today's learners support innovation by generating new knowledge, accessing global stores of knowledge, and adapting knowledge to local use.

xi) They contribute to human capital formation by training as qualified and adaptable labour force, including high-level scientists, professionals, technicians, basic and secondary education teachers, and future government officials.

### The Learner as Consumer, Co-Producer or Member of a Learning Community

According to DBIS, (2009), notions of the learner as consumer have been further reinforced with the government's publication on Higher Ambitions, which sets out the strategy for sustaining the strength of technical education. This document places learners at the centre of that strategy. It states that learners' choices and expectations should play an important part in shaping provision and encouraging tertiary institutions to adapt and improve their services. The government according to Little and Williams (2010) considers that the publication by all technical educational institutions should be of a standard set objective information setting out what learners can expect of the nature and quality of their programme and the long-term employment prospects it offers will create well-informed learners' ability to drive improvement by demanding better service.

McCulloch (2009) opined that a more appropriate metaphor to characterize the relationship of the learner to the institution's provider is one of co-operation. He stated that learners, lecturers and others who support the learning are viewed as being engaged in a co-operative enterprise focused on the production, dissemination and application of knowledge, and on the development of learners rather than merely skilled technicians.

As stated by McCulloch (2009), a metaphor of learner as co-producer also emphasizes notions of community and the collective experience

of the learning group, and the importance of the group encouraging learning especially now in the Covid-19 pandemic era.

### **Quality Assurance and the Learners' Role**

The emergence of borderless technical education heralds important changes in quality assurance needs and practices, John Gardener, (1990). In most higher institutions such as the Polytechnics, quality assurance may lie in learners' roles in institutional (and external) quality processes. Filippakou and Tapper (2008) state that the prominence of the notion of the learner as consumer, alongside a more expanded and differentiated technical education system, has meant that quality assurance processes have become one of the main means of engaging learners. The final report of (EUA, 2009) identified the role of the learners as being particularly central to creativity and innovation in teaching and learning. Creativity according to (EUA, 2009) also depends on the interaction of the teacher and the learners and learners being supported and encouraged to play an active role.

According to Little et al (2009) institutional quality assurance enhance the collective learner learning experience, as distinct from specific teaching, learning and assessment activities designed to enhance individual learner's engagement with their own learning. The basic model of formal learner engagement for quality assurance purposes comprises two main elements: learner feedback questionnaires and learner representation systems. In essence, learner feedback questionnaires provide opportunities for the (anonymous) views of individual learners to be collected, aggregated and reviewed. Learner representation is the means whereby the collective views of learners are represented at various levels of an institution's academic organization, providing direct learner input into decision-making and discussions about programme and institutional development.

### **The Promise of Learners' Engagement**

The practice of learners' engagement in the development of technical education in public tertiary institutions is a rich research area. Those in authority in the educational sector must continue to seek to understand and apply specific, well-considered, if not agreed upon, strategies that support learners' engagement in learning both in and beyond the classroom. Prensky, (2011); Tapscott, (1998); Gilbert, (2007); Williams, (2003) & Claxton, (2007) argued that the consequences of

not engaging learners in learning are reportedly dire.

Learners have changed over the last two decades; perhaps as a result of a technology rich upbringing, they appear to have "different" needs, goals, and learning preferences than learners in the past. We must therefore understand these youths to determine how best to engage them in the development and innovation of technical education; yet, there is a notable lack of "learners' voice" or learner perspectives in the literature on learners' engagement. As stated by Prensky (2005); Tapscott (1998) and Robinson (2009), today's world absolutely requires collaborative critical thinkers (learners and lecturers), creative and courageous innovators, and true lifelong learners to actually improve upon the development of technical education in developing countries such as Nigeria.

### **Challenges faced by Learners during Covid-19 and ways to Improve upon it**

There are two aspects that seem to encourage learners' engagement – engaging pedagogy and engaging curriculum (Taylor & Parsons, 2001). According to them, we need to change how we teach as well as what we teach if we are to engage learners in moving from didactic to constructivist pedagogy especially in the Covid-19 era. Poor learner-teacher relationship is one of the challenges faced by learners as it was impossible to have a close interaction between learner and teacher during the heat of the Covid-19. The environment when it is not conducive, learning becomes difficult. It therefore behooves on us to ensure strong respectful relationships and safe environments, especially as teacher-learner relationships shift from expert-disciple towards peer-based collaborative learning. The necessary facilities that enhance learning when it is absent, poses challenge to the learner.

The provision of good facilities for learning should be provided to enhance learners' contribution to the development of technical education in developing countries. The Polytechnics in developing countries such like Nigeria should push for interdisciplinary curriculum – the "What" to teach. The new "more engaging" curriculum as reported by Taylor and Parsons (2011) in their research primarily calls for cross subject exploration and collaboration. Dunleavy and Milton (2009) stated that engaging learning includes considering teacher's ideas and having opportunities to "see how subjects are interconnected, learn from and with each other and other people in their community, and have more opportunities for dialogue and conversations".

### III. CONCLUSION

Today learners' engagement in the development of tertiary institutions can be seen as a new development framework that can support knowledge-driven growth which requires expanded and inclusive technical education systems to reach larger segments of the population. These systems need to impart higher-level skills to a rising proportion of the workforce, foster lifelong learning for learners, with an emphasis on creativity and flexibility, to permit constant adaptation to the changing demands of a knowledge-based institution like the Polytechnic system, and promote international recognition of the credentials granted by the technical educational institutions.

The paper is concerned with contributions by learners in the development of technical education and innovation in public tertiary institutions amidst covid-19 pandemic. The paper concluded that though institutions view learners' engagement as central to enhancing the learner experience, more emphasis seems to be placed on viewing learners as consumers and less on viewing them as a member of a learning community. However, it argues that other aspects, including the involvement of learners in institutional (and now national) arrangements for quality assurance, where emphasis is on enhancement rather than first assuming standards. It further concludes that the engagement of learners is influenced by the quality of technical education, the nature of policies, human population growth and home-bred professionals.

The paper called for wider discussions to be initiated across higher institutions in Nigeria and other developing countries on the need to engage learners in other sector of the economy.

### IV. SUGGESTIONS

It is therefore suggested that:

1. In course of engaging learners in the development of technical education in public tertiary institutions, quality of the learner(s) should be strictly considered.
2. Polytechnic sector should come up with alternatives ways of delivery services to ensure overhaul of the entire system and have computerized and well-monitored structures and system of learners' personal information.
3. Mandatory counseling should be encouraged to help learners cope with the social, academic and bureaucratic challenges in the Covid-19 pandemic era.

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