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POTENTIALS OF ZOOM APPLICATION IN THE EFFECTIVE CONDUCT OF MICRO-TEACHING

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ABSTRACT

Micro-teaching is a training programme for trainee teachers which prepares them for their roles as classroom teachers. Through this programme they are taught specific teaching skills by observation, teaching and practice for them to master the skills and be able to apply them for effective teaching and learning in the real-life classroom setting. It is therefore a key programme in teacher preparation. Hitherto, Micro-teaching has been carried out through the face-to-face conventional teaching methods. With the emergence of e-learning and its attendant potentials to boost effective teaching and learning by encouraging individualized learning, collaborative learning, acquisition of 21st century skills for a globalized learner that will fit into the world labour market, it has become imperative to apply the e-learning modes in all aspects of teaching and learning in the teacher education programme. Furthermore, the advent of Covid-19 pandemic and other inherent challenges in the education sector has made it axiomatic to use alternative teaching –learning modes to enhance learning. It is in the light of this that e-learning is gaining grounds. Zoom App, one of the e-learning tools is a veritable tool in this regard. Zoom is a synchronous real time internet communication platform that offers the users opportunity to connect with each other via video, audio, phone and chat. The use of Zoom has become very prominent and handy to carry out most activities ranging from personal, social and professional issues. Its use in the education system is not left out. Hence the intention of this paper is to explore the potentials of Zoom in the effective conduct of micro-teaching programme for the production of teachers that can fit into the 21st century classroom.

Keywords: Micro-teaching, Zoom Application, Trainee teacher, E-learning, Synchronous learning, Asynchronous learning.

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Introduction

Education is the foundation on which the development of a nation hinges on. This is so because of the key role education play in nation building. Specifically, through education the man power required for building the nation is produced, hence it is said that the level of the man power of a nation cannot be higher than its level of education. Furthermore, it is the teacher that determine the level or standard of the education system as the training of the needed man power rest on their shoulders. So, it is important that the teachers be given the right training, equipping them for the 21st century classroom as to produce learners that will meet the 21st century development needs. This can only be done through the training process of the teachers, and requires using the 21st century tools in the teaching process. Technology driven education therefore is the way to go. Producing teachers that can take this responsibility is done through the teacher education process which should be powered by technology. The teacher education process is saddled with the responsibility of teaching teachers, equipping them with the relevant skills so that they in turn will teach the learners that will become the labour force of the nation to bring about the needed development of the nation.

Teacher Education programme is the training programme designed through which teachers are produced. The teacher education programme involves both learning content as in the subject discipline to be learnt and teaching skills on how to teach the learning content effectively. Amongst the strategies used in helping the trainee teacher to acquire the relevant teaching skill is the microteaching programme. Microteaching is one training strategy in the preparation/training programme for trainee teachers. Its impact in the production of quality and effective teachers has been emphasized over the years (Ambili, 2013 & Roza, 2021). It is a training session where the trainee teacher is exposed to practical teaching sessions to learn and practice some teaching skills for the effective mastery of such skills.

Teaching as an art is not just about transferring knowledge and skills from an experienced person, the teacher to a learner. It is a process that involves a complex series of activities and processes that influences the behavior of a learner in a pre-determined way, thus facilitating learning (Ambili, 2013 & Victor-Ishikaku, 2016). It is the responsibility of the teacher to create activities and arrange the environment such that the desired objectives will be achieved, for learning to take place. Effective learning hinges on effective teaching which also is dependent on the quality of the teacher (Victor-Ishikaku, 2022). Production of quality teachers is a factor of how the teacher is trained; taking into cognizance the learning content and instructional delivery in the teacher education programme. In this era of e-learning, heightened by the challenges of covid-19, it is imperative to look at the strategies on how to incorporate e-learning for effective conduct of microteaching so as to maximize its potentials in preparing teachers for the 21st century classroom.

The 21st century teaching learning environment has witnessed tremendous changes due to the technological advancement it has experienced and heightened by the challenges of the need to meet up with the demands for functional living and requisite skills needed for the 21st century work space and lifestyle. Every advanced society now is leveraging on the benefits of the 21st century technology to bring about the needed development they desire in every facet of live including the education system. By the way, the education system is the fulcrum on which the

development and growth of any society hinges on. This is because the labour force that will bring about the development of the society is produced by the education system hence it is said that a society cannot grow beyond its education system. It is therefore imperative that every education system should leverage on the potentials of the technological facilities of the 21st century to enhance quality, effectiveness and productivity of her labour force.

ICT today has collapsed all barriers and boundaries, building bridges to connect people from all works of life all over the globe, thus making the world a global village. Every individual from anywhere in the globe is just a button away. As such individuals can learn or interact with anyone from any part of the globe real time. It is therefore axiomatic that individuals and institutions that must remain afloat and relevant in the 21st century global village must switch over to the ICT facilities that are available. The emergence of the COVID 19 has reemphasized this fact that ICT is the way to go as the potentials is enormous especially for the education sector. It is on this premise that this discourse is positing on the potentials of Zoom as an application that can enhance the conduct of Micro-teaching programme for quality results in teacher preparation.

Clarification of Concepts

Teaching is the art and science of impacting knowledge and skills to an individual. It involves series of activities that occur in a cyclic process to create an enabling environment which will help the learner to acquire the required knowledge and skills (Victor-Ishikaku, 2015). These activities are classified into three main stages; pre-teaching or planning stage, interaction or implementation stage and the post-teaching or evaluation stage. In these activities the teacher is the manager of the entire process, it is therefore imperative to raise teachers who can understand these process and functions and, be able to perform these roles effectively. One of the processes required to raise this calibre of teachers is through the process of Micro-teaching.

Microteaching is a scaled down teaching experience designed to develop skills and refine old ones in a trainee teacher (Ambili, 2013). It is a special training programme designed to enable trainee teachers to practice teaching in an artificial classroom with the purpose of helping them to acquire teaching skills and gain competence in teaching. It is therefore a platform for practical teaching session for trainee teachers, to expose them to varied teaching skills. To Roza, (2021), it is an individual training process which affords the trainee teacher the opportunity to get the feedback of he/her teaching real time and to practice the skill until effectively acquired. It is a teaching technique used to equip trainee teacher with the requisite teaching skills. It involves providing real life experience through demonstration to develop skills in the trainee teacher and to equip them better with the art and science of teaching (Ambili, 2013). It is a skilled down teaching activity in terms of the

- Amount of time for teaching
- Number of students to teach
- Amount of Learning content
- Evaluation
- Teaching skills displayed amongst others. (Victor-Ishikaku, 2016).

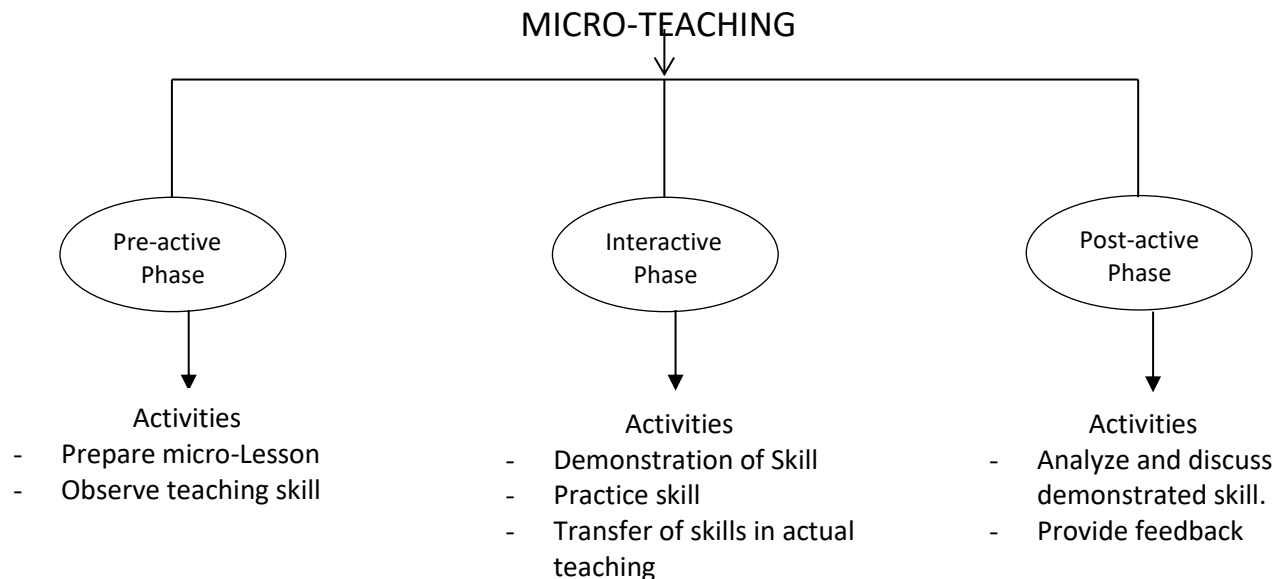
As the name implies micro; it shows it is a mini teaching experience where the trainee teacher are allowed to do practical teaching. It is therefore a scaled down teaching experience which the trainee teachers engage in to prepare them for real life teaching in the classroom.

Features of Microteaching

Microteaching involves series of activities that culminate in engaging the trainee teacher in a practical teaching session/experience in a classroom situation; some of the activities are;

- Scaled down teaching process in terms of class size, duration of teaching period, task to be accomplished, content to be covered, evaluation, etc.
- Preparation of lesson note on the topic to be taught.
- Choosing of topic by the trainer for practice.
- Breaking down learning content into small learnable units.
- Teaching period is about 5 to 10 minutes
- Observations of the skills through live demonstration or video presentation.
- Using the lesson note and instructional material to teach, and practice skill to be learned.
- Participation of other trainee teachers as students.
- Constructive evaluation is guaranteed.
- Creating enabling control environment, for effective classroom management.
- Creates room for independent and collaborative practice of teaching skills

The tasks as highlighted above which take place in the micro-teaching process is carried out in three (3) stages; Pre-active phase, Interactive phase and Post active phase.



The pre-active stage activities involve processes carried out in preparation for Micro-teaching. During this stage the instructor prepares the students on what to do during micro-teaching; how to choose a topic, breaking the topic into teachable units, writing of the lesson plan, choice and preparation of instructional media, teaching skills to learn and practice and others. The interactive stage involves the actual presentation of the lesson; teaching the lesson, demonstrating the teaching skills to be learnt, application of class management techniques and evaluation strategies amongst others. The instructor and students observe critically for effective correction. Then, the post active stage involves assessment and the evaluation of the presenter of the lesson

that is the trainee teacher. The instructor and the other trainer teachers who served as the students will critique the performance of the presenter and make corrections which could lead to re-planning and re-teaching as the case may be.

Aim of Microteaching

Microteaching as a programme of training for the trainee teacher is intended to create a classroom situation for the learners such that they could practice and learn the skills of teaching; make mistakes, take corrections and such like within the training session without being exposed to the ridicule of students in a normal classroom setting. Specifically, its aim is to;

- Simplify the complex processes involved in correctional teaching-learning process.
- Prepare trainee teacher for real life classroom setting.
- Offer trainee teacher opportunities to discover, reflect on their own performance and that of Others to acquire teaching skills.
- Expose real life teaching process to the learner.
- Help the trainee teacher see the need for planning and taking decisions.
- Enable them to develop and improve their teaching skills.
- Enhance skill development in the trainee teacher.
- Help them identify their strength and weakness so as to make necessary correction.
- Improve their performance and competences.
- Create room for feedback for evaluation and improvement of the trainee teacher.
- Use trial and error sessions in self-training.
- Develop classroom management skills
- Allow learning each skill for perfection as it gives room for listening, observing and practicing.
- Focus on essential skills to be learnt.
- Enhance learning by realistic application.
- Build up a pool of teaching skills.
- Encouraging use of skills, practice, rehearse and reflect on actions.
- Focus on some selected aspects of teaching.
- Create a preparatory ground for real life classroom. (Arsal, 2014, Ambili, 2012, Ledger et al, 2020 & Abendroth, Golzy, & Connor, 2011)

It is therefore one aspect of the teacher training programme that is pivotal to producing quality teachers that can carry out the teaching learning activities effectively and efficiently, teachers that can manage the classroom activities.

Information and Communication Technology (ICT)

ICT, though a house hold name cannot be pinned down to a specific definition and usage. However, its usefulness and impact in the human society is one thing that everyone can attest to. It has changed and is still changing the process of doing things including education which has led to the modernization of the teaching-learning process. Due to its universal usage and impact, ICT could be said to include facilities, tools and resources that are used for processing, storing, preserving, accessing, retrieving and disseminating information for effective and efficient communication. Nweke (2021), see it as the engine that propels growth and the tool for empowerment, having great implication for educational change and socio-economic development.

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For this presentation, the authors will accept the line of the definition of Mueen et al (2013) as ICT being the electronic network-embodiment of complex hardware and software linked by a vast array of technical protocol, which is used to make communication effective and efficient in every sphere of life. This implies that the use of ICT tools in the implementation of the education process is a welcome development as it is enhancing the teaching learning process. It is on this premise that the paper is looking at the role of zoom as an ICT tool in the training of teachers who can effectively fit in to the 21st classroom.

ICT is playing very important role in the 21st century classroom especially with the emergence of covid-19 which has widened the gap between school location and learning. This has brought a paradigm shift in carrying out teaching-learning process hence the advocacy for the use of zoom in the conduct of microteaching. According to Sindhu, 2013, ICT has changed and is still changing the process of education paving way for the modernization of the teaching-learning process. Due to the emergence of ICT has evolved from being only offline to include online processes. Based on its use, ICT is divided into two main approaches in the education process; ICT for education and ICT in education. ICT for education has to do with the use of ICT for literacy and teaching purposes while ICT in education has to do with the use of ICT for ICT mediated teaching purposes. The later approach is the aspect which this discuss is looking at.

ICT today is the fulcrum on which value-based education is hinged. It has given birth to a global economy and technological changes which is powered by technology, fueled by information and driven by knowledge (Shindhu, 2013). This therefore has grave implication for every educational systems; hence the need to use ICT mediated teaching and learning approach to make our graduates have global outlook and skills. In line with this, Mandah 2016, stressed the need for teachers as facilitators of learning to be abreast with the current trend in knowledge and information as well as the facilities and strategies to impact them to the learner so as to equip them with the relevant skills and competencies of the 21st century learning environment. It therefore calls for every teacher to learn, unlearn and relearn the new and innovative ways to teaching which is where application of the zoom comes in.

Zoom is a video conferencing tool that provides people a meeting point online using I-pads, laptops, I-phones and other such facilities (Carnegie Mellon University, 2023). Bringing this to the teaching-learning process, it is a collaborative tool for live teaching, conference and online classes. It provides the teachers and the learners an online forum for teaching and learning activities at real time. The beauty of zoom is that it gives the users the opportunity to use the same teaching strategies used in the convectional teaching setting. It affords the teacher the opportunity to move from one technical mode freely to another. As such it makes room for multiple choices of teaching modes. Zoom meeting can be used online or can be recorded for learners use at their convenience and so supports both synchronous and asynchronous modes of learning.

ICT has made Synchronous and Asynchronous learning modes very feasible such that learners can learn at anytime and anywhere. The wall of boundaries, distance and time has been broken hence the need to explore alternative channels for effective learning. Some of the benefits of ICT as identified by Miller (2019) are;

- Enhances critical thinking skills

- Provides multiple platforms for learning
- Enhances digital literacy
- Affords the learner the opportunity to take responsibility for he's own learning
- Enhances career prospects as digital skills are learnt and so, places them at advantage in the global labour market

ICT and Microteaching

ICT facilities are effective tools for Micro-teaching. They provide both synchronous and asynchronous learning tools to enhance effective learning. This is because they create room for repeated observations, practice and correction especially when they have to do with demonstrations. Ambili (2012), emphasized the need for innovative technology devices for micro-teaching. The study of Roza (2021) on the use of zoom as a synchronous learning tool for micro-teaching showed that the use of zoom was effective in teaching. Another study by Afrijou & Nur (2022) on the use of zoom in micro-teaching found that it;

- Ensures that standards are maintained,
- The interaction between the teacher and learners are maintained,
- It is simple and practical and
- Challenges from zoom are easily handled.

The emergence of Covid-19 brought about dangerous and complex challenges to the society, which brought attendant management and mitigate challenges to government of different countries. The pandemic brought about social isolations resulting in the change of how every human activity is carried out including education. The convectional face-to-face classes were suspended giving way for ICT mediated learning. ICT mediated teaching-learning became the ley way to handle this challenge (Joias & Lorenzo, 2021). The question then is, how far is the online /ICT in mediated learning being used in our school system? The purpose of this discussion is to expose the relevance of the use of zoom application as an ICT-mediated approach in the conduct of Micro-teaching.

Benefits of using Zoom application for Microteaching

Some of the reason for advocacy for the use of zoom in microteaching cannot be overemphasized. These benefits as highlighted are;

1. It offers access to the teacher and learner to carry out their learning activity irrespective of location and distance.
2. It creates room for flexibility for both the teacher and the learner such that they can share communication at their own time and convenience.
3. It provides access to non-learning resources.
4. It creates opportunities for learning and re-learning
5. It makes room to incorporate other online facilities
6. It makes room for regular practice until the skill is mastered

With these and more benefits of the ICT and specifically, the Zoom application in mind, its use in micro-teaching should be a well come innovation as it promises to provide a robust opportunity for effective acquisition of teaching skills thereby equipping the trainee teachers with the needed skill for the technology driven learning environment of our time.

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Strategies for using Zoom application for Microteaching

The essence of the application of zoom is to enhance the effective conduct of microteaching in terms of bridging the gap of time, location, distance, regular practice, teaching skills acquisition and such challenges. It also makes room for both synchronous and asynchronous modes such that the students can consistently watch to practice and correctly learn the skill. To be able to achieve this will therefore require applying the right steps. The required steps are;

Pre-class Activity

1. Knowledge of zoom application and how the features work
2. Schedule your class
3. Create personal meeting ID
4. Chose appropriate teaching method you want to use
5. Plan class activity; This will require arranging your class activities as in your normal convectional microteaching process such as grouping the students, stating the rules of conducts and others
6. Plan and create the agenda of the session
7. Discuss online etiquette

During Class Activity

1. Start the meeting session
2. Use your zoom features correctly
3. Use the application features to coordinate and manage the class
4. Use the white board and other needed instructional material
5. Screen sharing
6. Record session; using the zoom application to present how the session can be recorded for the students any time for practice and mastery of the skills

Post Class Activity

1. Discuss observations for corrections
2. Discuss challenges encountered during the session
3. Make corrections for subsequent sessions
4. Make the recording available for the students for asynchronous learning mode when needed (https://harvard.service_now.com>it...,2022).

Apart from using the Zoom in the micro-teaching sessions, it can also be used by the instructor to prepare the proceedings of the session and send to the trainee teacher to watch and practice at their own convenience. As such it has benefit for both real time (synchronous) and latter time (asynchronous) practice of micro-teaching.

Challenges

Though there are enormous benefits for using zoom in microteaching, some challenges are there which can be surmounted if concerted efforts are made. Some of these challenges as pointed out by Roza, (2021):

1. Difficulty in accessing the internet due to limited internet connection. This is one challenge of using the ICT in Nigeria. Due to internet signals, it makes it difficult for individuals to use the facilities anytime they want. This can be overcome if the government has the political will to change the narrative
2. Lack of ICT skills on the part of the teacher and student is another serious challenge. Many today in the education system are still afraid of change, afraid of technology or losing their job because of technology. The truth of the matter is that technology has come to stay and only those who are willing to run with it will remain relevant. Learning the skill is the only way out. The learning should be a gradual process and focus on those that are relevant to your area of job.
3. Lack of willingness to embrace change and innovation by education providers. Change is the only thing that is permanent in life and so all education providers must embrace the change technology has brought if we must produce graduates who can fit into the 21st century labour market both locally and globally
4. Financial implication of acquiring the needed facilities on the part of education stakeholders, the teachers and students. This is another area of concern as the cost of acquiring the ICT facilities and maintaining them is on the high side. The fact though still remains that where there is the willingness and determination, one can start from somewhere.
5. Time-factor; considering the volume of the learning content in the curriculum, the ability to plan lesson with technology facilities seems to be time taking as the lecture method seems to be a time economic teaching method.

Conclusion

Zoom as an innovative technology has proved to be very effective in carrying out teaching learning activities. Its use is simple with easy to use features. It is suitable for both synchronous and asynchronous mode of teaching and learning modes. It affords the user the privilege for accessibility to learning material, use of multiple media, learning at one's convenience, regular practice and much more. Specifically, the use of Zoom for Microteaching will create room for effective teaching skills acquisition as it will afford the learners the opportunity to practice until they are able to master the skill. Using it requires downloading the application, planning the teaching session for the microteaching exercise; pre-teaching activities, during teaching activities and post-teaching activities, and carrying out regular practice amongst others. Though there are challenges, so it is with every human endeavor, if we make concerted efforts those challenges are easily surmountable. Other nations are embracing technology, running with it and making waves in their education sector, Nigeria should not be left out if we must remain relevant in the committee of nations.

Suggestions

- Based on the discourse, the paper suggests that;
- Teacher trainers should be encouraged to use zoom application in microteaching sessions
 - Teacher trainers should be willing to embrace the change technology has brought and run with it. It's about mind set and determination to do the needful.

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- Teacher trainers should be given opportunities to attend workshops, seminars and conferences for training and retraining to be abreast with the use of the zoom app for teaching
- Facilities for online teaching and learning be provided by university authority and relevant stakeholders for effective teaching and learning
- Such facilities should be maintained for its optimal use, not for decoration of our classrooms
- Support staff such as technical staff should be provided to facilitate the use of the zoom and other multimedia facilities.

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