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Inclusive pedagogy: Embracing diversity in a virtual class

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Abstract
This study analysed literature on inclusive pedagogy and its application in a virtual classroom. One of the major consequences of the Covid 19 Pandemic was a sudden paradigm shift from traditional modes of delivering instruction to modern technologically compliant modes such as e- learning and multimodal instruction. The issue of concern is whether or not the different categories of learners have their pedagogical needs adequately met in a virtual classroom. The researcher carried out a literature review analysis using search engines such as Google Scholar, Ebsco and others. For the past few decades there has been great emphasis on inclusive education. However, the preponderance of literature available focuses on special needs learners or learners with some disability. The major theories that inform the study are Howard Gardner's theory of Multiple Intelligences, Fleming and Mills' VARK theory and The Universal Design for Learning. The findings from readings and practice revealed that in a virtual class the students may be placed into 4 major categories. Each of these categories has unique characteristics. It is only when educators understand each category of learners then they are able to develop inclusive pedagogic strategies to optimize learning for each category. This study used an inclusive pedagogy conceptual frame work cycle. This conceptual framework comprises of 3 key phases; Cognitive preparedness, curriculum preparedness and classroom practice understanding the learner. As the cyclic process continues the quality of inclusion becomes better refined and no learner is left behind. The study recommends that educators strive to know their learners, deliberately plan for their unique and diverse needs then finally educators need to engage the learners according to their uniqueness utilizing variety of pedagogical strategies of both lesson delivery and assessment of learning. These may include blended learning, multimodal instruction using both synchronous and asynchronous sessions, self-assessments, peer assessments as well as teacher assessments.

Keywords: Inclusive pedagogy, blended learning, synchronous learning session, asynchronous learning session

1. Introduction

Wherever you go, whatever the setting, academic classes have one thing in common, diversity. Realizing that diversity is universal and that it exists in almost every class is the first step to embracing diversity in every class (Lin, & Bates, 2014; Cassidy, 2004) [24, 4]. This diversity ranges from cultural background, socio-economic status, personality, cognitive abilities, aptitudes and many other differences (Lin, & Bates, 2014) [24]. Regardless of the type of diversity, it simply means as educators, we must be ready to embrace and celebrate diversity even in a virtual class. Although these learners are in one class, the one size fits all approach may not yield the best results. However, sometimes educators seem quite oblivious to this universal fact. The Covid 19 pandemic brought innumerable changes in the academic world. Of marked significance is the shift from the traditional face to face classroom to the virtual classroom comprising of a community of online learners.

This means a classroom without walls or boundaries. The fact that the learners are not confined to one room means an increase in cultural, language and learning style diversity. Indeed there is greater diversity in the virtual classroom than in the traditional face to face classroom. It is very similar to a flower bed, with pansies, petunias and poinsettias, exuding different fragrances, blooming different colours at different times. How does an educator cope with such diversity? This calls for application of Inclusive Pedagogy. Inclusive pedagogy is also referred to as the inclusive pedagogical approach (Florian 2015) [17]. Both educators and learners need to embrace the new normal that we live in a multicultural global village. Inclusive pedagogy focuses on a paradigm shift from the traditional pedagogical thinking of using a one size fits all to non- conventional approaches that accommodate diversity of learners. This is achieved by conscientizing both teachers and learners of the need to develop an inclusive learning community in their classroom. It is only by developing the right positive attitude and acceptance of individual differences as special uniqueness that the stigma associated class distinctions is dissolved (Grimes & Shaeffer, 2016; Florian, 2015) [17, 12].

1.1 Statement of Problem

Over the last few decades several studies have been carried out on inclusive education. However, the preponderance of available studies has been focusing on special needs education or education of the persons with disabilities (Meenakshi, Anke de Boer & Sip, 2015; Ainscow, 2020; Sailor, 2017) [29, 1, 35]. Provision of education needs to go beyond observable disabilities but should be based on equity of resources and opportunities instead of just being restricted to physical disabilities or vulnerabilities leading to marginalization of some individuals. In this technological age, offering instruction on a virtual platforms inclusive pedagogy needs to accommodate learners of diverse backgrounds, learning styles, cognitive abilities and technical competencies. Thus inclusive pedagogy in this case should be based on social justice principles so that education is a means to individual autonomy that empowers the learner with skills and competencies for competitiveness in the world of work (Florian & Rouse, 2014; Walton, 2011) [45].

1.2 Research Questions

This study is guided by the following research questions

1. What are the different categories of students found in a virtual classroom?
2. How can the educator create an enabling environment and a curriculum that optimizes learning for each unique category?
3. What are some of the best practices for handling diversity in a virtual teaching and learning environment?

2. Literature Review

This study is mainly based on secondary data, literature review from various search engines. Such include Google Scholar, Ebsco and others. The preponderance of literature available focuses on inclusive education for learners with disabilities. However, the focus of this study is not just for such vulnerable populations but specifically focuses on different learners who may be found in a virtual classroom. While inclusion in mainstream sometimes affect some learners with physical disabilities with a possibility of stigmatization and discrimination; on the other hand, in a virtual classroom some of these physical issues may not be as pronounced. However, there are other issues that may impede learning if not properly addressed or handled. The focus of this study is how to optimize learning through inclusion in a virtual classroom.

There are several benefits associated with inclusive pedagogy. There are psychological and sociological benefits for all learners when inclusive pedagogy is properly practiced. Studies indicate that students in inclusive pedagogy classrooms encourage and support each other (UNESCO, 2016), feel that they have somebody to speak to when they are worried or frustrated. Such social support contributes to high academic achievement for all students. Evidence from the literature strongly suggests that inclusive teaching practices raise the achievement of all children in the classroom (EASNIE, 2018; Sailor, 2015) [10]. Even the educators get a sense of accomplishment as they see their graduates complete their studies and fit well the different careers and contribute meaningfully to society. Consequently, inclusive pedagogy can be described as synonymous with quality teaching (Save the Children & EENET, 2018) and the UNESCO-IBE (2016).

2.1 Theoretical Frameworks

This study is informed by 3 major theories. Howard Gardner's Theory of Multiple intelligence, VARK theory by Flemming & Miller and Universal learning Design. As emphasized by Howard Gardner, himself, (Gardner, 2010), Multiple intelligence Theory is not an educational goal but a tool that may be used to improve teaching and assessments in the classroom (Davis, Christodoulou, Seider and Gardner, 2011) [8].

2.1.1 Howard Gardner's theory of Multiple Intelligences

Howard Gardner's theory of multiple intelligences has challenged the historical view of intelligence as a fixed quantity since he first published *Frames of Mind* in 1983. Gardner prefers to describe cognitive ability as a set of eight *intelligences.* Once merely a theoretical perspective, Gardner's view of intelligence can be seen in a new light with the advances in brain research in the field of neuroscience. An understanding of the relationship between the body. Hence, any physical challenge in the human body has a great potential to influence cognitive competencies to some extent. Consequently an understanding of this relationship helps the educator to be ready to adapt the classroom setting accordingly. There is need to modify strategies for teaching and assessment of learning so as to accommodate diverse learners. This way we can be in the right path to embrace inclusive policies such as the Education for All (EFA) and achieve the Sustainable development Goals (SDGs) and the goals of No-Child-Left-Behind in the classroom (Phillips, 2010) [34]. Gardner's Multiple Intelligence Theory also borrows foundational concepts about the need to create an ideal environment for learning from Jerome Bruner's cognitive constructivist approach (Morgan, 2021) [32]. In other words once learners are placed in the best environments that support their learning styles, they can always construct new knowledge.

2.1.2 The VARK Theory

The VARK Model of understanding individual differences was developed by Fleming and Mills (1992) [15]. The acronym VARK represents 4 dominant learning styles whereby; V

stands for Visual, A stands for Aural, R stands for Read/write, and K stands for Kinaesthetic. According to Fleming and Mills, these 4 learning styles represent the 4 dominant modalities used in the learning process by most learners. Although an individual could use more than one learning style, the style that is frequently used becomes the dominant learning style. Understanding the application of the VARK theory and other theories of individual differences in the classroom helps educators to develop a repertoire of instructional strategies designed to meet the diverse learners in a virtual class (Lin & Bates, 2014) [24].

2.1.3 The Universal Design for Learning (UDL)

Universal Design for Learning (UDL), is a framework for designing instruction in such a flexible way to accommodate diverse needs of different learners (Sailor, 2015). UDL supports constructivist learning principles. Universal Design for Learning focuses on strategies and methods that encourage development of expert learners though personal engagement and motivation. Based on the 3 core principles of UDL educators may transforms one-size-fits-all instruction into diverse, multiple, and accessible learning opportunities that embrace student variation (Dalton, 2017). The 3 basic principles of Universal Design for learning outlined by Dalton, 2017 below;

- Multiple Means of Representation: This includes options for perceptions, language and comprehension.
- Multiple Means of Action & Expression: This includes options for physical action, expression and communication.
- Multiple Means of Engagement: This includes. Options for 7) Provide options for recruiting interest, sustain efforts and self-regulation.

Appropriate application of the UDL is associated with increased learner achievement (EASNIE, 2018; Sailor, 2015; Schuelka, 2018) [10, 38].

2.2 Implementing Inclusive pedagogy in a virtual classroom

There are three major steps involved for successful implementation of inclusive pedagogy conceptual framework in a virtual classroom.

1. Cognitive preparation
2. Curriculum preparation
3. Classroom practice

The main goal of Inclusive Pedagogy is to optimize educational outcomes for all students, particularly those who are technically, culturally, linguistically, and cognitively diverse (Teemant & Pinnegar). This may best be accomplished in 3 steps of the Inclusive Pedagogy Conceptual Framework. The Inclusive Pedagogy Conceptual framework consists of 3 key processes represented in a cycle. These are 1. Cognitive preparation, 2. Curriculum preparation and 3. Classroom practice. This conceptual framework has been illustrated as a cycle to denote that the process should be on-going and progressively improve with time.

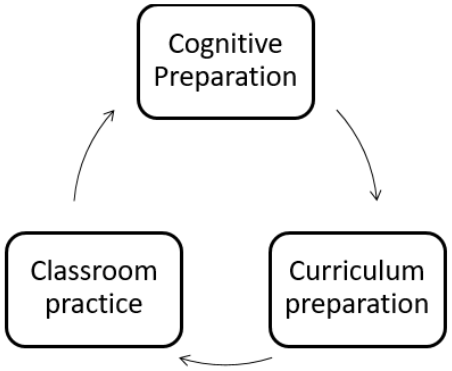

Fig 1: Inclusive pedagogy conceptual framework

3. Research Methodology

This research study is a qualitative approach following a case study design. The case of implementation of inclusive pedagogy in a virtual class was examined. The researcher carried out a literature review analysis using search engines such as Google Scholar, Ebsco and others. From the bulk of the literature examined, it revealed that for the past few decades there has been great emphasis on inclusive education. However, the preponderance of literature available focuses on special needs learners or learners with some disability. The major theories that inform the study are Howard Gardner's theory of Multiple Intelligences, Fleming and Mills' VARK theory and The Universal Design for Learning. As indicated before; since most studies carried out before focused mainly on inclusion of learners with disabilities. Scholarly studies on theories on different learning styles inclusive pedagogy focusing on current pedagogical approaches such as hybrid and multimodal forms of instruction, synchronous and asynchronous learning were accessed, filtered and screened for precisely focusing on equitable provision of education especially in virtual learning environments.. The three research questions correspond to the phases of the Inclusive pedagogy conceptual frame work were used to guide the literature search.

4. Results and Discussion of Findings

The findings of this study are presented as guided by the research questions. These findings are based on wide reading from the relevant literature. As indicated before; most studies carried out before focused mainly on inclusion of learners with disabilities. However, the literature was filtered and screened for precisely focusing on equitable provision of education for all regardless of contexts or limitations. The research questions correspond to the phases of the Inclusive pedagogy conceptual frame work developed by the researcher. These research questions are outlined below.

1. What are the different categories of students found in a virtual classroom?
2. How can the educator create a conducive environment that optimizes learning for each unique category?
3. What are some of the best practices for handling diversity in a virtual teaching and learning environment?

4.1 Research Question One

What are the different categories of students found in a virtual classroom?

This question is best answered by both the educator and the learner. A careful analysis of the different learners give both the educator and the learner the cognitive preparation to handle inclusion as illustrated in the phase One of the inclusive Pedagogy conceptual frame work cycle

Phase One: Cognitive Preparedness

Inclusive pedagogy begins by understanding the uniqueness of each learner. Both the learner and the educator need cognitive preparation- i.e. to know and understand the learner. This is achieved by responding to the question; "Who is this child?" The first step in inclusive pedagogy is to respond to the question "Who is this child?" (Lyn and Bates, 2014; Teemant & Pinnegar) [49]. Finding the answer to this question places educators in position to know how to plan to work with each learner. Each learner is unique and educators need to always remember to acknowledge the uniqueness of each learner. Both the VARK model and the Theory of Multiple intelligences are very useful in understanding the uniqueness of each learner. Teemant and Pinnegar assert that effective educators need to know unique characteristics of each learner so as to appropriately develop strategies responsive to students' needs and support them in reaching their potential to contribute to society and progress in their learning and schooling (Teemant & Pennegar, 2020). When educators get to know their learners individually as well as a group this helps them to develop a positive attitude and the right mind set of what type of learning activities and teaching methods to prepare for each lesson.

On the other hand each learner needs to develop self-awareness, understanding their personal abilities and aptitudes. This will help each learner to develop metacognitive skills acquiring new knowledge or developing new skills and competencies. Metacognition is a regulatory System that helps a learner understand their thinking process, know their limits, and develop self-regulatory strategies (Jaleel, Premachandran, 2016) [26]. As each learner develops self - awareness they also get to know each other with class mates in the same class. When the teacher suggests group work tasks it becomes easy for the leaners to choose who to partner with; knowing *"birds of a feather flock together"*.

Teaching a general course (at tertiary level) during this Covid 19 pandemic era exposes both teacher and learners to a wide range of diversity. Within the same virtual class may be people of different temperaments, occupations, nationalities, color, language, culture, faiths, age groups and different gender. In addition, their learning styles and computer literacy levels also vary. Hence the variables to deal with are almost as varied as their names. However, engaging each of them in the community of learners, whether synchronously or asynchronously is very rewarding for both teacher and learner. It becomes imperative to explore diverse approaches to deliver instruction as well as assess the students. Giving consideration for varied learning styles and multiple intelligences helps more students than focussing on fewer categories, lest those students weak in other areas feel frustrated, neglected and consequently demotivated (Morgan, 2021) [32]. Although there are many categories of diversity of learners in the virtual classroom, the author will focus on just four

1. The technically challenged learner & the technically competent learner
2. The procrastinator & the organized learner
3. The solitary learner & the gregarious learner
4. The ethnocentric learner & the culturally relativistic learner

A. The technically challenged learner & the technically competent learner

Studies seem to indicate that the technological age may also be influencing the learning styles of younger students and emerging generations of learners. Generally, the Millennial Generation tends to more technologically compliant and advanced than their Generation X counterparts. (Romanelli, Bird & Ryan, 2009). Studies by Cook et al examined the effectiveness of different students' adapting to Web-based learning modules also confirmed similar results. So in general, the older learners are usually among the most technically challenged. The technically challenged learner may have the following characteristics:

a. Unlike the technically competent learner, the technically challenged learner has minimal computer literacy.
b. He/she is slow or hesitant to try new technology
c. He/she almost always has excuses about Wifi or internet connections.
d. He/she prefers traditional face to face methods of instruction.

The technically competent learners are quite the opposite. They are well versed in digitalized learning and are always willing to try new technologies.

Usually in a virtual classroom, there are both technically competent learners and those learners who have minimal technical competence or no experience in using information technology for learning. Technological competence enhances delivery of instruction and forms an effective interactive interface between lecturer and learners and among learners. However if one or some of the learner are technically challenged the teacher has to exercise extra patience and move along with both groups of learners so that the competent learners do not feel dragged behind and on the other hand the technically incompetent may not feel frustrated from fast speed and end up dropping out.

Using blended learning approach help the technically less competent learners to transition to full technical competence. This is because blended learning adopts some of the emerging learning technologies such as podcasting, social media, e-portfolios, blogs, wikis, and internet based audio and video communication to enhance capacity of learning and accommodate the diversity of learners found in a virtual class (Hussain, Shahzad & Ali, 2019) [22]. The benefits associated with the blended learning approach are well articulated in Singh and Reed (2001) [37] definition of "blended learning as incorporation of strategies that focus on optimizing achievement of learning objectives by applying the [right] learning technologies to match the [right] personal learning style to transfer the [right] skills to the [right] person at the [right] time" (p.2).

B. The procrastinator vs the organized learner

All learning, whether face to face or virtual, demands commitment to a systematic well organized schedule. However, this is very important for virtual learning where the bulk of the learning materials have to be accessed online and there is need to work synchronously with other learners as

well as with the educator. This means avoiding procrastination. Learning in the 21st century has become personalized. Each learner needs to develop a schedule that they will systematically follow. This means procrastination is a big draw back in the virtual academic pedagogy. There is great need to be organized.

The Procrastinator learner is characterized by the following traits:

1. He/she does not follow a specific schedule
2. He/she is a last minute person.
3. He/she always has excuses for late submission of assignments.
4. Generally their academic work is haphazardly organized.

This may not work well in virtual or online learning as there might be hiccups with availability of internet or electricity power if one is a last minute person. However, since the aim of the vision 2030 of sustainable development goals is "to leave no one behind in the digital transformation journey "(Lincaru, 2021) [25], the prudent educator has to be tactful in his pedagogical strategies so as to avoid leaving any procrastinator learners lagging behind. If possible, the educator may need to structure the work in bite size packages clearly arranged according to due dates and regularly send reminders before the due dates.

C. The solitary learner & the gregarious learner

In the traditional classroom it is very easy to set up groups and have the learners meet and physically discuss concepts. Although there is the possibility of learners to get into break out rooms and discuss, this may not be as easy since some learners could be located in different time zones and so to synchronize may be a challenge. This makes the virtual class seem to appear as comprising of solitary learners. The solitary learner is usually able to work well and faster when alone. Solitary learners are describes as introverts, who derive their energy from solitude (Gulnaz, Farooq & Ali, 2018) [11]. The general characteristics of a solitary learner are;

1. The solitary learner is generally self-motivated to learn
2. They derive their energy from quiet solitude environments.
3. He/she is reserved and likes to work alone

Gregarious learners are usually extroverts, just the opposite of solitary learners. According to Rebecca, (2003), in Gunaz, Farooq & Ali, (2018), gregarious learners are generally extroverts who gain their greatest learning energy through interacting with others. Hence group discussions, group projects and group assessments are the best instructional methods for gregarious learners. Unlike the gregarious learner, the solitary learner accomplishes much faster when alone than with others. We usually have both the solitary learner and the gregarious learners in a virtual classroom environment. Although coordination of group discussions is complicated in virtual learning, there is something desirable about both groups. Gregariousness in learning usually results in more ideas being generated and discussed from different perspectives during group discussions. Hence we need individualized assignments and presentations as well as group discussions and group presentations so as to develop teamwork skills. Creating a virtual class that allows personalized learning is believed to allow students to retain new content for a longer period as each will use their metacognitive skills to master the key concepts of the lesson (Morgan, 2021) [32] Hence, the effective educator maintains balance in the selection of learning activities that cater for both the solitary learner and the gregarious learner.

In addition, a flipped classroom approach may prove very effective in providing individualized instruction via pre-recorded videos that may be accessed at convenient time. Further, the flipped classroom videos may be played and replayed to consolidate instruction, especially for the slow learners. With Flipped classrooms, students can learn at their different paces (Morgan, 2014) [31].

D. The ethnocentric learner & the culturally relativistic learner

Since virtual learners may be comprised of learners from diverse cultures it is of paramount importance for each learner to develop cultural sensitivities and by all means avoid ethnocentric attitudes. The ethnocentric learner is characterized by the following;

1. He/she believes his/her culture is superior and the best.
2. He/she has prejudices about people of their cultures.
3. He/she tends to make derogatory comments or remarks about others.

It is very important for the educator to help each learner to develop sensitivity to cultural differences in a virtual class and appreciate uniqueness of each learner. Adopting Sedlovskaya's (2020) [36] Four (4) Cs framework: curiosity, candour, courtesy, and courage can really be helpful in helping learners to open up for group discussions as this reduces the vulnerability of each. Educators may indeed enhance a sense of acceptability and belonging as they assure students of their support, trust reciprocity and the "we" spirit. In order to optimize student achievement in an inclusive, academically diverse classroom, the classroom itself must function as a community of learners that is designed to promote the active engagement of every student in experiencing the fun and joy of learning (Hardman, 2015) [18]. An adequate understanding of uniqueness of each learner's needs leads to a focus on equity based inclusive framework. The equity-based inclusive framework seeks to identify and enhance the learner's capabilities (Sailor, 2015). Thus instead of focusing on the learner's limitations it enables both educators and learners to replace the "disability" construct with a human capabilities framework that endeavours to build on individual strengths rather than focus on their limitations (Burrello et al., 2013) [3]. The equity based inclusive framework assumes that both educators, parents and learners are on the same page of collaboratively focusing on possibilities for each learner to optimize learning. Inclusive pedagogy values student diversity, even in a virtual classroom (UNICEF, 2015a).

4.3 Research Question Two

How can the educator create an enabling environment and a curriculum that optimizes learning for each unique category?

The response to research question two is covered in phase two and three of the Inclusive Pedagogy Conceptual Framework Cycle.

Phase Two: Curriculum Preparation

Phase two involves preparation of the appropriate curriculum that matches the needs of the learners. Usually the curriculum and syllabi are handed down from the Ministry of Education.

Then the nest task for effective educator is to interpret the syllabus and contextualize the learning experiences so that the learner still acquires the desired skills and competencies in their specific context. Although the syllabus may be designed for learners in both urban and rural contexts, the techno savvy learner and the technophobic learner; at the end of the syllabus, the basic skills and competencies will be learnt by all. The praxis of inclusive pedagogy is best illustrated in the "Universal Design for Learning (UDL) Model". According to Floreta (2021), Universal Design for learning provides a set of principles to start thinking about the implementation of inclusive education practices successfully by generating a curriculum and learning environment that promote flexibility in teaching and learning, using digital media as an ally. Ensuring equity and quality in inclusive education benefits not only the individuals concerned, but has the potential to dramatically improve the lives of all humankind. According to Wells, (2019) [46] "if we lose the opportunity to educate the most capable students, we diminish not only their individual opportunities, but also those of the country." Definitely, for a virtual class to be effective it should be inclusive. Inclusivity in education means that all children - no matter who they are - can learn together in the same school. This entails reaching out to all learners and removing all barriers that could limit participation and achievement. (IIEP/UNESCO).

In other words, the educator engages in deliberate lesson planning, including appropriate learning activities and varied teaching so as to accommodate diverse learners. Universal Design for Learning is a flexible approach to planning the curriculum so that learning is personalized according to the individual needs of learners (Sailor, 2015, UNICEF, 2015b). Such child centred that ensures that the educator plans for differentiated learning so as to best meet individual needs (Sailor, 2015). Assuming the educator has gone through phase one (understanding the learner) he/she can plan the lesson in anticipation based on the known student needs and competencies. Based on differentiation strategy, the educator can modify pedagogical processes involving varied learning activities and assessment modes. Other differential strategies that enhance inclusive pedagogy include develop self-paced learning, Develop tools that allow learners to carry out self-assessments, give and receive feed-back to and from learners at different times (Meyer, Rose and Gordon, 2013) [30].

4.4 Research Question Three

What are some best practices for handling diversity in a virtual teaching and learning environment?

The best practices to ensure effective inclusive diversity in a virtual class are based on the three afore mentioned phases. These are 1. Cognitive preparation; Understanding the learner, 2. Curriculum preparation-developing strategies tailored to optimize learning in each unique learning environment and 3. Classroom practice- appropriately implementing strategies that optimize learning experiences for each learner.

Phase Three: Classroom Practice

Phase three is where the rubber meets the road. This is when the strategies developed and outlined in the curriculum are practically implemented. Except for extreme cases of special needs, the traditional approach of assuming that learners with special needs should be separated and be educated in special schools with specialized teacher has been revisited as the new approach is in favour of inclusive pedagogy (Sailor & Burrello, 2013; Walton, 2011) [45, 3]. As such every educator needs to be proactively engaged in professional development so as to embrace the new approach of mainstreaming and meeting the different learners (Grimes & Shaeffer, 2016) [12]; diverse needs in the same classroom while optimizing learning.

Strategies that enhanced effective virtual learning while maintaining diversity

In view of the nature of the uniqueness of a virtual class which has become the new normal, both the educator and the learners need to embrace diversity**.** Acknowledging that students learn differently and mature at differing paces has significant implications for educators. Schools should therefore refrain from strict instruction. Instead, they need to be creative as well as accommodative so as to create an environment that allows children to flourish (Gardner, in Morgan, 2021) [32]. Inclusive education is the most effective way to give all children a fair chance to go to school, learn and develop the skills they need to thrive. Inclusive education means all children in the same classrooms, in the same schools. It means real learning opportunities for groups who might have traditionally been excluded – not only children with disabilities, but speakers of minority languages too. Inclusive systems value the unique contributions students of all backgrounds bring to the classroom and allow diverse groups to grow side by side in conducive learning environments (Hurtado, Alvarez et al 2015) [19] to the benefit of all. Inclusive pedagogy allows students of diverse backgrounds to learn and grow side by side, to the benefit of all (https://www.unicef.org/education/inclusive-education). A paradigm shift on the part of pedagogical strategies to adopt inclusive pedagogy strategies such as flipped classroom, multiple assessments and blended approaches to learning tend to maximize learning as they are associated with added advantages.

Flipped classrooms

The Flipped Classroom model, is a new pedagogical approach. It blends technology with the traditional face-to-face teaching is inverted and provides instruction in two learning environments, the home and the school (Strayer, 2012) [39]. This model provides a different teaching-learning process and effectively employs technology. Theoretical knowledge is taught to students by means of videos out-of-class study time and various activities and implementations are conducted in class study time in this model (Bergmann and Sams, 2012; Strayer, 2012) [2, 39]. In the flipped classroom, students receive technologically developed tutorial materials that they use at home prior to being exposed to the assignment model at school (Davis, Dean& Ball, 2013).

According to studies, blended learning is associated with some notable advantages based on the overall successfully completing a course or withdrawal rates. This is attributed to the fact that the blended learning modality merges the best of both worlds- face to face and online, thus it optimizes the teaching and learning process. Blended learning is more effective when it involves both synchronous and asynchronous modes of learning. This blending of both synchronous and asynchronous learning is called bichronous learning. Studies comparing flipped classrooms, blended learning and traditional face to face methods indicated that

there are several benefits associated with blended learning as it takes the best from both worlds (Talan, and Gulsecen, 2019) [40]. Learning tends to be maximized as students who prefer partly individualized learning will get this in their comfort zone, yet will need to do some face to face interaction with fellow students and teachers part of the time.

Research by Yamagata-Lynch (2014) [49] indicates that synchronous online learning helps students develop a stronger sense of belonging as they connect and network with their peers and instructor and stay engaged with course activities. This becomes a very effective way of breaking barriers and enhances embracing diversity. While synchronous learning has this advantage, asynchronous learning also has its positive side. Asynchronous learning allows those who are in different time zones or who, due to work commitments or other reasons may not be able to attend synchronously with other learners at some of the times. Hence, this eclectic approach of adopting bichronous online learning. This approach tends to optimize the benefit for more learners (Martin, Polly and Ritzhaupt, 2020) [28] as it blends both asynchronous and synchronous online learning. In this case, students can participate in lectures anytime, anywhere during the asynchronous parts of the course but then participate in real-time activities for the synchronous sessions (Martin and Oyarzun, 2020) [28]. The adaptability of educational program rendered by adopting bichronous online learning has great benefits to both learners and educators as it allows them to enjoy the best of both worlds while embracing diversity.

Blended learning in all its shades makes learning flexible and accommodative, and results in reduced seating time. This approach has added benefits to both the learners and teachers, but more so learners of differing technological competencies. The technologically competent will not need to be bogged down at the slower pace of the less competent and have more time on their hands to engage in other activities of significance (Dziuban, Graham, Moskal, *et al, 2018* [9]. This enhances unity and efficiency in teaching and learning.

Some of the basic principles to enhance embracing of diversity in a virtual class are summarized below;

1. View each learner as a unique individual who deserves respect. Avoid the one size fits all approach as it may not yield the best results. Acquaint yourself with each learner; know their names and a bit of background, eg occupation. This helps to be socially and culturally inclusive.
2. Break down assignments into short weekly packages with clearly stated due dates. In addition, always send reminders for assignments due dates.
3. Include variety of teaching strategies and methods of assessment of learning such as games, case studies, research projects, presentation, discussions; this caters for the diversity of learners with differing learning styles. In addition, use of blended learning approach including bichronous learning sessions accommodates learners diverse needs and in different geographical locations and time zones.
4. Be flexible with assignments and examination times of submission as some learners may experience challenges with access to internet
5. Be culturally sensitive and adopt multiculturalism approach. This will enhance cultural diversity as the virtual class comprises of learners from different races, cultures and creeds. Encourage cooperation and networking instead of competition among learners. This enhances a sense of belonging among learners through development of a learning community.
6. Inspire hope. Visualize a hopeful future for each learner. See possibilities even in learners that seem unpromising. Each individual may be facing a unique challenge. Interact optimistically with each learner, even when giving feedback for a poorly done assignment. Let each see some light at the end of the dark tunnel.
7. Be a role model in practically living what you teach. Provide timeous feed -back. By being exemplary, caring, accommodating, patient but firm and principled, you will have a positive impact as you train learners to be self-disciplined and organized and embrace diversity.

5. Conclusion

In conclusion, as we live in this world which has become a global village, the virtual classroom with its diversity of learners from different cultures is the new normal. Diversity has always been part of every learning community. Educators need to be deliberately proactive and pro-inclusive so as to engage all learners without leaving any one behind. As alluded to earlier, inclusivity in education endeavours to remove barriers that hinder individuals' ability to have successful learning experiences. Universal Design for Learning provides a flexible framework that ensures diverse learners' needs are optimally met (Sailor, 2015; Floretta, 2021) [16]. This will create a diverse community of learners who network with each other without fear of discrimination or segregation. Inclusive pedagogy conceptual framework allows understanding the learners, plan flexibly for the different categories of learners and ultimately ensures practical virtual classroom implementation. The study recommends that educators embrace diversity in the virtual classroom by creating inclusive pedagogical environments conducive for optimizing learning for all the learners.

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