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FLIPPED CLASSROOM MODEL – A BETTER LEARNER-CENTERED INSTRUCTION IN PRE-PRIMARY AND PRIMARY SCHOOL DURING COVID-19 PANDEMIC

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Abstract

Coronavirus affects the education system in the world, schools, colleges and universities were closed to control the spread of coronavirus. School closure brings difficulties for learners, teachers and parents. Flipped classroom is a solution to continue the education system. However, the lack of network infrastructures computers and internet access is challenging learning during the period in many countries. This paper was aims to show flipped classroom model as a better learner centered instruction in pre-primary and primary school during COVID-19 pandemic. Flipped classroom generally is the creating if active learning environment wherever it is implemented. It engages learners in range of actions and enables them to take advance from not knowing, not understanding, to having skills and understanding. It as well boasts healthy interaction between members, in a mutually beneficial manner. Model of teaching guides the instructors to design educational activities, environment, and patterns of these methods. Learners centeredness being the vogue of the day in the field of education generally is believed that the shift from teacher centeredness to that of the learner centeredness, prepare the learner to cope with the demands of the ever-changing and challenging life socially, politically and economically.

Keywords: Flipped Classroom, Model, Learner-Centered Instruction, COVID-19 Pandemic.

Introduction

The covid-19 pandemic has created the largest disruption of education system in history, affecting nearly 1-6 million learners in more than 190 countries and continents. Closure of schools and other learning spaces have impacted a great-percent in low and lower income countries. The lockdown in response to covid-19 interrupted conventional schooling with nationwide school closures in most countries and educational communities made concerted efforts to maintain learning continuity. During this period, children and students had to rely on their continuing learning remotely through the internet, television or radio to close the gap in learning through the use of flipped classroom instruction.

Flipped Classroom

Flipped classroom (FC) in several aspects is a description of how most people go about solving problems of learning both at a personal and group dimensions. It is a learner centered method that enables the learner form learning culture. Flipped classroom actually advocates questioning and reflection so as to prompt a deeper level of analysis, to test assumptions, in order to explore possibilities. It is an instructional method and a type of blended learning that reverses the traditional learning environment by delivering instrumental content, often-on-line, outside the classroom.

In flipped classroom, pupils watch on-line lecturers and collaborate in discussions or carryout research at home while engaging in concepts in the classroom with the guidance of a director. It taps into the advantage made available by ICT where learning can now be easily accessed by learners. Just as the name implies, it flips the whole learning process. According to Fitzpatric (2012), Berret (2012) and Mazure (2009) flipping the classroom means that students gain first exposure to new materials outside the class, usually via reading or lecture videos, and then use class time to work through the topic, perhaps through problem-solving, discussions or debates. In essence, learning is directed in a way that learners are first exposed to learning outside the classroom through resources which they source on their own or is discussed in the classroom. This remains favourable to the intended paradigm shift of instruction from the teacher-centered to learner-centered (Duru, 2011).

Flipped classroom was defined by Arnold-Garza (2014) as teaching method that delivers lecture content and uses class time for practical application of activities. To Johnson, Adam, Estrada and Freeman (2014) flipped classroom involves a blended-learning method in which a self directed learning phase (individual phase) takes place using certain media resources before the classroom learning-phase. Akude (2010) explained that in flipped classroom factual knowledge is first gained by the learners on his own which later serves as a basis for the disseminating and implementing the previously gained knowledge. Educause (2012) noted that a feature of the flipped classroom model is the change in emphasis from instructor responsibility of the student acquisition of knowledge to increased student responsibility. Pupils in this model of instruction engaged in a more active role and ultimately take responsibility for their learning activities such as finding answers together to the questions they prepared before lesson, group working, problem solving, discussion and making an inference (Formica, 2010). This autonomy also means that pupils learning diversity can be supported. This can be explained by Walvord and Anderson (2009) who wrote that flipped classroom model works by inverting the Bloom taxonomy. According to Scherib, Fukuta and Gorden (2010), pupils prefer collaborative or interactive learning together with other pupils

or with the instructor to individual self-directed phase. Also, it is believed that online learning materials show the greatest effect in learning, addressing lower-order cognitive skills, such as learning and comprehension (Prunuske, Batzil, Howell and Milla, 2012). Flipped classroom is an approach that transfers learning responsibility from teacher to the student (Bergman, Overmyer & Nillie, 2011).
"Engagement represents the rang of action learners take to advance from not knowing, not understanding, having skills and achieving" (Reeve, 2013, p.580). Flipped classroom engages and focuses students' learning by combining active, student-centered learning with mastery that can be applied in the real world (Herreid and Schiller, 2013). According to Clark (2013), activities with real-world scenarios could be implemented by hands-on and project-based learning activities during class time to enhance students' understanding and comprehension of the content and to encourage them to verbalize their engagement with such activities.

Flipped classroom generally is the creating of active learning environment, wherever it is being implemented. The new age flipped classroom learning is about teacher working in collaboration to learn newer strategies for improved learning. It is also about viewing flipped learning from a broader perspective to see how it is helping us create a true learning eco-system. When we look at flipped classroom learning as a way of creating a learning ecosystem, we realize how effective it is. Flipped classroom connects people and provide them with a variety of content and technology. This increases the engagement of the learners as there is activity-based, practical learning in the classroom time.

Flipped classroom also boast healthy interaction between members, in a mutually beneficial manner, which is essential function of ecosystem. Blended learning interaction between members of informal learning are other characteristics of flipped classroom that takes one closer to developing a learning ecosystem. In a nutshell, a flipped classroom is an instructional strategy and a type of blended learning focused on pupils engagement and active learning, giving the instructor a better opportunity to deal with mixed level, learner difficulties and differentiated learning preference during classroom.

Models and Instructional Models
Models are useful tools to better understanding not only for learning process of the pupils, but us as educators. At a glance, model might provide more questions, but a careful study of the models can provide starting points to begin developing more appropriate educational experiences for our society's next generation. Model is often a challenge. Thus, this is essential for pre-service training programs. It facilitates linking of theory or models with the actual practice which empowers trainees to seek reasons for medications in their practices and their beliefs (Brooke, 2012). This review helps teachers to evolve as they witness teaching philosophies bringing convenient learning outcomes. Additionally, any teacher professional development program should include addressing the models of technology and interaction (Garba, 2018).

Models are seen as teaching methods that guide for designing educational activities, environments, and experiences. They help to satisfy methods of teaching and patterns for these methods. They help trainers and educators to guide and plan over process. Branch & Kopcha (2014) are of the view that instructional design is intended to be an interactive process

of planning outcomes, selecting effective strategies for teaching and learning, choosing relevant technologies, identifying educational media and measuring performance (P.77).
Instructional models are kinds of instructional ways or activities used to guide the facilitation of learning in each phase of instructional process. They are guidelines or skills of strategies on which the approaches to teaching by instructors are based. Its effectiveness are based on learning theories which describe the ways theories believe people learn new ideas and concepts. They often explain relationship between information we already know and new information we are trying to know. An instructional model can unite school leaders, teachers, and students with shared goals, a shared understanding of how to reach the goals, and a shared vocabulary for discussing progress. A poorly planned implementation process however can cause rifts that take years to heal. Consistency of instructional quality distinguishes higher from lower programming school systems. (Barber & Mourshed, 2007; Kulik, Kulik, Bangert-Drowns & Slavia, 1990; Pianta, Belsky, Houts, & Morison, 2007; Reynolds, Stringfields, & Schaffer, 2001). Instructional strategies or teaching methods depend on a number of factors such as the developmental level of learners, goals, intent, objectives of the teacher, content and environment including time, physical setting and resources.

An instructional design method provides guidelines to organize appropriate pedagogical scenarios to achieve instructional goals. Discoll & Carliner (2005) stated that "design is more than a process' that process and resulting product, represent a framework of thinking" (p.9). Instructional design model describe how to conduct the various steps which are instructional design processes. There are many variations; examples are lectures, case-study, journals, blogs, storytelling, peer feedback, quizz, performance, brainstorming, videotaping and review, etc. Teaching successfully across a variety of purposes, cultures, distance, and learning preferences necessitates a strategy for selecting instructional technology appropriate to the context and task at hand.

In traditional model of instruction, the teacher is typically the central focus of the lesson and the primary disseminator of information. It utilizes passive learning or the idea that students can learn what they need through listening and watch very precise instruction. Teachers act as the sole supplier of knowledge, but under the direct instruction models, teachers often utilize systematic, scripted lesson plans. Direct instruction program include exactly what the teacher should say and activities that pupils should complete for every minute of the lesson. Flipped classroom intentionally moves learning to a learner centered model in which the classroom is used in exploring topics deeply and make learning meaningful while students are introduced earlier to new topics outside of the classroom. Its content delivery takes different forms, often, video lessons prepared by the teachers, is used to deliver the lesson. It as well makes use of online collaborative discussion, digital research, and text reading. It also redefines in class lessons, activities accompanying flipped classroom which include activities learning or more traditional homework problems among other activities.

There are numerous models and the most commonly accepted are ADDIE instructional model, Dick and Carey, Assure Model, Backword design (understanding by design) Kemp design model, the Kirkpatric model, Gerlack-Ely Model and Tpack model. The teacher through modeling helps learners to know what is expected of them by providing them with a clear example of skills or strategies and this is achieved by;

1) Describing the skills and strategies

2) Clearly describing features of the strategies in performing the skills
3) Breaking the skills into learnable parts.
4) Describing/modeling using a variety of technologies.
5) Engaging pupils in learning through showing enthusiasm, keeping a steady pace, asking good questions and checking pupils understanding. The teacher can provide examples to show the pupils expectations and stop frequently, to get their inputs and questions.

Learner-centered Instruction

In our multicultural society, culturally responsive teaching reflects democracy at its highest level. It means doing whatever it takes to ensure that every child is achieving and ever moving towards realizing his/her potentials. Learner-centered instruction differs from the traditional teacher-centered instruction. Learning is cooperative, collaborative and community-oriented. Learners are encouraged to direct their own learning and to work with other students on research projects and assignment that are both culturally and socially relevant to them. Learners become self-confident, self-directed and proactive.

Learner centeredness is the vogue of the day in the field of education generally. The shift of emphases from teacher centeredness to that of the learner centeredness in instruction is due to what believed to be the failure of the teacher-centered instruction style to prepare the learner to cope with the demands of the ever-changing and challenging life socially, politically and economically.

Memorization, note learning and repetition which characterized the teacher centeredness , have come short to prepare the learner to survive the present challenging society, which requires an individual equipped with the strategies, skills, and other thinking abilities that entail him to take responsibility of his learning and cope with the ever-changing demands. "The meaning of knowing has shifted from being able to remember and repeat information to being able to find and use it (Doyle, 2008). The learners are not empty beings who are able as the teacher himself is and who can take responsibility of their own learning. This way, the paradigm started to shift away from an emphasis on teaching on an emphasis on learning which means a shift of power from the teacher to that on the learner (Al-Huneidi & Schreurs, 2013). The role of the instructor in the learning process is to encourage learners to do more discovery learning and to learn from each other. The instructor focuses on constructing authentic, real life situations that motivate learner involvement and participation (Weimer, 2002).

The learner-centered approach builds entirely on the learner (Barman, 2013). Education is seen from learners' perspective rather than that of the teacher while learner remains at the center of all educational activities. Barman further noted that in this paradigm shift, teachers mostly facilitate learners learning, ensuring development of their personality as self-reliance, critical and creative thinking. McCombs and Whisler (1997) define learner centered approach to instruction as "The perspective that couples a focus on individual learners (their heredity, experiences, perspective, backgrounds, talents, interest, capabilities and needs with focus on learning. Also, a useful definition of learner-centered instruction is seen as that which "gives the learner greater autonomy and control over choice of subject matter, should be noted that this definition brought into focus the core characteristics of a learner-centered method by

promoting the idea that learners should have more input into what is learner, how it is learned and when it is learned.

In learner-centered instruction, learning basically is shifted from the teacher to the learner as is the order of the day. Main changes are brought about when the shift takes place. These changes are visible in the process of instruction, the behaviour of the learner and the behaviour of the teacher. The changes includes thus:

a) Instruction changes from teacher and content driven to learner-centered and learning process driven.
b) The pupils' roles change from that of being a passive recipient of empty receptacle to that of an engaged and active agent in the learning process.
c) The instructor's role expands from that of a knowledge-laden teacher, who professes truths and disseminates factual information, to that of being a leader, mediator and facilitator.

Covid-19 Pandemic

The corona virus (Covid-19) is a pandemic disease that affects the education system of different income level countries (Wajdi et al, 2020). The United Nations Education, Scientific and Cultural Organization (UNESCO) has recognized that the coronavirus pandemic outbreak has impacted the education system in the world (UNESCO, 2020b). the World Health Organization (WHO, 2020a) on March 11, 2020, has officially announced that coronavirus (covid-19) is a pandemic after it covers 114 countries in 3 months and infects more than 1180,000 people in the world.

Covid-19 can be explained as an infectious disease caused by a newly-discovered coronovirus. Most people who fall sick with covid-19 experienced mild and moderate system and recover without special treatment. The virus that causes covid-19 is mainly transmitted through droplets generated within an infected person's cough, sneezes, or inhales. These droplets are heavy to hang in the air, and quickly fall on floors and surfaces. Covid-19 is characterized as a pandemic. This is due to its rapid increase in the number of cases outside China that has affected a growing number of countries.

Since the end of 2019 to the beginning of 2020, a new generation of coronavirus (covid-19) began to spread globally (Du Toit, 2020) up to mid April, 2020, the number of infected people worldwide has exceeded 2.3 million (COVID-19). Due to its extremely strong human-human transmission characters, many countries have taken positive and effective measures, including the blockade of cities, strict implementation of contact violation and strict medical system precautions. As a response to the medical control policy (WHO, 2020), including a reduction in population movement to reduce the probability of cross-infection. With the increasing serious pandemic, many schools worldwide have stopped their traditional teaching and closed down schools, some began to implement online class models for teaching (Quintana, 2020; 2020; Zubascu, 2020). Therefore, schools have accelerated their efforts to implement online learning system and digital goals in order to substitute traditional teaching with online teaching.

Massive efforts were made by schools since the outbreak of crisis in order to deal with the disruption and resume learning online. However, getting pupils to attend classes, whether its online or face-to-face does not guarantee that they benefit from the content being presented (Greener, 2020). This might resonate with Bandura's social cognitive theory. When pupils attend a class or lesson, whether it is in-class or online, does not necessarily mean that learning from what is presented is happening. Hence, some practices from flipped learning is believed to empower online teaching and learning especially the emphasis on benefiting from the live synchronous meeting between the instructors and learners during live sessions. In addition, the application of online teaching on large scale can be accompanied with reported issues including learners motivation and effectiveness.

Traditionally, flipped classroom learning being an offspring of blended learning aims to benefit pupils from what is presented and available online than the traditional face-to-face where pupils and teachers meet (Singh, 2003).

Furthermore, blended learning has virtually limitless design possibilities and applicability to various teaching context and strategies (Graham, 2013). Covid-19 crisis has drastically accelerated schools implementation of online (flipped) teaching. Various benefits are gained with on-line learning including flexibility in terms of work undertaken (Keengwe & Kidd, 2010), allowing pupils to take decisions about when and what to learn (Kemp & Grieve, 2014). In addition, research has indicated that online learning is pedagogically promising because it encourages deeper learning due to its self-paced and pupils-centered approach (Grieve, 2017). However, as fiscal pressure increase, and development assistance comes under strain, the financing of education could also face major challenges, exacerbating massive pre-covid-19 education funding gaps. For low income countries and lower-middle-income countries, for instance, that gap had reached a staggering point and could increase the more. One the other hand, Covid-19 has stimulated innovation within the education sector. We have seen innovative approaches in support of education and training continuity: from radio and television to take-home packages (flipped classroom). Distance learning solutions were developed thanks to quick responses by governments and partners all over the world supporting education, continuity, including the Global Education coalition convened by UNESCO. Also, the essential role of teachers and other key partners have an ongoing duty of care to education personal.

Conclusion & Recommendations

The evidence from this paper shows that flipped classroom was a good option for learning during the COVID-19 pandemic. Therefore, this calls for attention to teacher-trainers and curriculum developers for training faculties. There is no doubt that learners need this approach but it is also well known that they need to be motivated, strengthened, promote peer-communication, reduce disruptive behaviour, build on pupils-teacher relationship, promote discovery/active and interactive learning and responsibility for promoting one's learning. In order to achieve this, learners need to be properly guided to understand the concept of flipped classroom instruction and as well be informed about their roles and responsibilities.

Also, pupils need to be properly guided and informed on the dangers of COVID-19 pandemic and its negative implication to learning and thus, be helped to learn while the government and parents should be helped to protect and coordinate for impacts to be made.

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