# Assessing Early Childhood Development Teachers' Perceptions on the Use of the Flipped Classroom Method in the Teaching and Learning Process in Zimbabwe.

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## ABSTRACT

Globally, the (COVID-19) epidemic brought about a crisis in schooling that had never been seen before. Due to this situation, all face-to-face interactions within educational institutions had to be suspended in order to stop the virus's transmission and lessen its effects. Traditional pedagogical techniques of instruction were automatically suspended as a result of the ongoing lockdown limitations. The adaptation of new online teaching and learning methodologies. One method of teaching that is quickly gaining popularity in schools all over the world is the flipped classroom model, which involves having students participate in hands-on activities in the classroom while also watching instructional videos or hearing lectures electronically. To enhance learning outcomes for students, a relatively innovative approach to teaching and learning has been implemented. There is, however, little research on how Early Childhood Development (ECD) teachers see the flipped classroom approach. The study's aim was to close this gap by examining ECD instructors' perspectives in order to comprehend how the flipped classroom approach helps the learning of ECD students in centers. The concerns-based adoption model, a fundamental qualitative design, served as the study's foundation. To learn more about how this technique is used by teachers and school officials, in-depth interviews and focus groups were conducted. Data analysis employed theme inductive methodology. Despite some difficulties, the results showed that most teachers thought the flipped classroom concept was quite beneficial. The findings also showed that teachers changed their roles, putting the students at the center of the learning process. By providing decision-makers and other interested parties with qualitative evidence to support the use of the flipped classroom model in ECD settings, this study helps to bring about social change. The study suggests that the flipped classroom can be used effectively at the ECD level if a stakeholder approach is used to accommodate the learners' various demands. Future studies can concentrate on challenges associated with the use of the flipped classroom model in the teaching and learning process at the level of Early Childhood Development.

**Key words:** Early Childhood Development, flipped classroom model, pedagogical methods, Covid-19 pandemic.

## INTRODUCTION

Due to its inclusion of the use of technology to convert class work into homework, the flipped classroom approach has grown in popularity in many educational institutions throughout the world (Fautch, 2015). The primary idea behind the flipped classroom approach is to use web videos to supplement the teacher's courses and free up class time for active learning and problem-solving activities. The approach relocates the primary instructional setting from within the classroom to outside. The flipped classroom approach, as its name implies, flips the order of classwork and homework (Muir, 2016). The method allows students to learn in individual rather than group settings, which has a number of advantages and results in higher-quality training (Hamdan, McKnight, McKnight, and Arfstrom, 2004).According to Dolozier and Rhodes (2016), the educational activities are created to encourage critical thinking, in-depth study, experimentation, and

projects. It appears that the burden has changed, giving students more time for studying (Jensel et al., 2015). In order to ascertain early childhood development teachers' opinions on the flipped classroom model in the teaching and learning process during the Covid 19 pandemic, the current study is conducting a survey.

**Theoretical Framework**

The constructivist theory, which is supportive of the classroom model, served as the study's guiding principle (Findlay-Thompson & Mombourquette, 2014). The four criteria of constructivist learning theory are described by McLean, Attardi, Faden, and Goldsmidt (2016) as follows: knowledge is constructed by the learner; connections are made between previous and existing knowledge; the learning process is aided by social interaction; and application of abstract concepts made through solving real-world problems. These four requirements serve as a foundation for creating flipped classrooms for modern learning. Constructivism theories have several different facets that align with the flipped classroom model, including the learner-centered approach, the nature of the learning environment, the emphasis on group work where there is cooperative and collaborative learning, hands-on learning, activity-based learning, motivation, feedback, giving students an opportunity to reflect, connecting school life with real life, and use of ICT (Fulton, 2012). It is important to view the ECD teacher's perceptions though the lenses of the Constructivists theories. Constructivists' theories assume that the process of perception is a highly active process of extracting sensory stimulus, their evaluations, interpretations and backward organization of sensory stimulus (Demuth, 2013). Perception is the end product of the interaction between stimulus, expectations and knowledge of participants. Motivation and emotions may also play an important role in perceiving. Perceptions are thus influenced by a wide range of individual factors that can lead to inadequate interpretation ( Eysennck, Kein, 2008). Therefore based on the Constructivist epistemology, ECD teachers' perceptions might be influenced by different factors leading to wrong interpretation of prevailing situation on flipped classroom methodology. This gave the current study's theoretical framework, which made it easier to find the answers to the study's research questions.

**The Flipped Classroom**

Using the flipped classroom pedagogical concept, classwork and homework are switched around. (Ramirez, Hinojosa, & Rodriguez, 2014). The fact that training is delivered outside of the classroom, most frequently through video, is what unites them all (Moran and Milson, 2015). According to Bergmann & Sams (2012), it is a different instructional model that is attracting educators' attention. They claim that this pedagogical strategy converts education from a classroom for group learning to one for solitary study. The strategy is different from the conventional paradigm of education in that it reverses the process of teaching and turns learning into a collaborative setting that encourages active learning. The strategy has the capacity to upend the world of an educator. This method involves the teacher assisting students as they creatively connect with the material and apply principles. Focus is placed on a condensed pre-recorded lecture at home (for homework), which provides students with immediate access to information almost anywhere at any time. The teacher is then able to concentrate on the application of learning through projects and activities that are typically considered "homework" during class time. The instructor then serves as the students' mentor, coach, and guide during class time when employed successfully. The teacher has more time to connect with students and give more individualized education. The teacher and students can maximize their time and effort with flipped models. Essentially, this model gives educators more time to support their learners in active learning by reallocating time spent teaching and learning.

According to The Learning Network there are four pillars of a flipped classroom; a flexible learning environment, learning culture, intentional content and professional educator.

- **Flexible Learning Environment:** Providing fluid timelines for learner work and comprehension. Teachers should adjust to the pace of their learners in the class.

- **Learning Culture:** A rich environment that allows learners to delve further into topics and provides them with opportunities for self-reflection and hands-on activities.
- **Intentional Content:** Teachers decide ahead of time what direct instruction to pair with in-class activities. Learners should feel challenged but able to understand the material on their own.
- **Professional Educator:** Teachers monitor learners during lessons and offer feedback to ensure no gaps in learner knowledge.

In recent years, the concept of the flipped classroom has gained popularity in the field of education. This innovative approach to teaching and learning removes direct instruction from the classroom, allowing students to watch recorded lectures as homework and creating more opportunities for active learning during class time (Bergmann and Sams, 2012).

It is important to note that video lectures are not always necessary for a flipped classroom. The main idea is to shift the focus away from direct instruction and provide active learning opportunities for students in the classroom (Bergmann & Waddell, 2012). By doing so, instructors can move away from being the center of attention in the classroom and focus more on facilitating student learning.

Teacher-centered lessons are an efficient way to impart knowledge to learners (Kashada & Su 2017). However, flipping the classroom changes the traditional classroom to one that is more engaging for students (Munsan & Pierce, 2015). By creating more opportunities for active learning, students are able to engage in higher order thinking, and to take control of their own learning.

Pelliccione (2017) explains that the flipped classroom eliminates passive learning from in-class time, allowing instructors to engage students in higher order thinking. By removing direct instruction from the classroom, instructors can work more closely with individual students who may be struggling with the material. In a flipped classroom, learners cannot be passive and must take an active role in their learning (Johary, 2015). This can create a more engaging learning environment where students are more invested in their own education.

Bergmann and Sams (2012, p.111) attest that "when learning is in the hands of the learners and not in the hands of the teacher, real learning occurs." One of the main reasons for flipping the classroom is to increase interaction between teachers and learners. Jensel, Kummer & Godoy (2015) assert that the flipped classroom allows teachers to act as facilitators for learners (Bergmann & Sams, 2012). Learners also build better relationships with their peers through cooperation and collaboration in class (Bergmann & Sams, 2012). By not delivering content during class time, teachers have more time to work with struggling learners and to differentiate instruction (Olakanmi, 2017). In a flipped classroom, teachers can handle issues more effectively because they are not busy delivering a lecture to the entire class (Bergmann & Sams, 2012).

Recorded lectures benefit struggling learners because they can re-watch portions of lessons that they found challenging (Bergmann & Sams, 2012; Petrovici & Nemesu, 2015). Learners can also watch lessons at their own pace and rewind or pause the video as needed (Osgerby, 2013). Flipping the classroom also makes learning more accessible for absent learners, as video lessons are readily available (Rachmawait, Setvaningrum & Retnawati, 2019).

Bergmann and Sams (2012) suggest that flipping the classroom increases parental involvement in their child's learning. Parents can watch video lessons and better understand their child's education. Increased transparency generates more discussions about learning outcomes than classroom behaviors. Blended or hybrid learning are other terms that can be associated with the flipped classroom. Blended or hybrid learning simply involves changing the way face-to-face interaction is handled in class by utilizing some component of web-based learning outside of class (Strayer, 2012).

Overall, the flipped classroom is a valuable approach to teaching and learning that has the potential to revolutionize education. By removing direct instruction from the classroom and creating more opportunities for active learning, students are able to engage in higher order thinking and take control of their own learning. The benefits of the flipped classroom are numerous, including increased teacher-student interaction, better relationships between learners, and increased parental involvement in learning. As such, the flipped classroom is a promising approach to teaching and learning that has the potential to transform education.

**Bloom's Taxonomy and the Flipped Classroom Model**

Fulton (2012) suggested that in traditional learning, technology is used to assist lower-level learning, such as remembering and understanding content during class. Higher-level learning, on the other hand, is traditionally practiced outside of class for homework and projects after in-class lectures and lessons. However, when the flipped classroom model is used, the pyramid can be flipped upside down. By using the revised taxonomy, learners can work independently on lower-level cognitive tasks before entering the classroom (in-person or virtually) and engage with the teacher and their classmates during class activities.

Jonathan Bergmann and Aaron Sams are often considered the founders of the flipped classroom (Jomaludin & Osman, 2014), although the approach had existed for years before they popularized it. Bergmann and Sams (2012) even mentioned that many others before them had flipped their classrooms. According to Herreid (2013), college instructors have been flipping classes for many years. The flipped classroom has been widely used in other contexts as well, such as medical education (Maharaj & Primus, 2016), nursing education (Hermanns, Post, & Deal, 2015), and organic chemistry education (Fautch, 2015). Kostary, Sampson, Giannakos & Pellliccione (2017) discussed the same flipped classroom approach and pointed out that it allowed more time to apply concepts. By moving the lecture outside of the classroom, which opens up in-class time to apply what has been learned, teachers can achieve this. Strayer (2012) pointed out that teachers have often required students to read material prior to class sessions in order to engage with in-class learning activities. Over the past few years, advances in audio and video technology have made flipping even easier (Fulton, 2012).

The history of the flipped classroom model and teachers' perceptions of using that model to support learners saw teachers at West Point assigning video materials to students to complete at home and using class time to boost instruction (Nouri, 2016). Evidence shows that previous authors pioneered what is now called the flipped classroom. Bergman and Sams (2012) highlight that two high school teachers used the flipped classroom model in 2007 after observing that students were missing instruction to participate in sports activities. The teachers started recording their instruction and made it available to students, who could watch the recorded video several times. Other authors explored teachers' perceptions about the flipped classroom. The work of those authors was used as the background for the present study. The first of these studies was a quasi-experimental investigation conducted by Unal and Unal (2017) in which they collected data from 16 public school teachers enrolled in a graduate course. Their data collection included the administration of pretests, post-tests, and a descriptive survey, all of which were intended to help them determine how using the flipped classroom model influenced student performance, how students perceived the flipped classroom model, and how satisfied teachers were after implementing the model in their classrooms. Results indicated that students in flipped classrooms had positive attitudes toward the model and had higher achievement scores following the trial period. Teacher satisfaction was also improved on average after they implemented the model. This evidence helped demonstrate the potential value of the model as both a pedagogical tool and a means of increasing teacher engagement and thereby provides initial justification for the current study. The flipped classroom has been implemented in various educational contexts, including K-12 education (Kashada, Li, & Su, 2017) and higher education (O'Flaherty & Phillips, 2015). The impact of the flipped classroom approach has been explored in many studies. For example, He et al. (2016) found that flipped instruction improved student exam performance and perceptions of learning. Yarbro et al. (2015) identified

four pillars of flipped learning, including flexible environments, learning culture, intentional content, and professional educators. Flipped learning has also been found to be effective in improving student examination performance in pharmacogenomics courses (Munson & Pierce, 2015), teaching creative and critical thinking skills (Rahman & Manaf, 2017), and teaching computational thinking through programming (Flórez et al., 2017).

Given the potential impact of the flipped classroom model on student learning outcomes and teacher engagement, it is important to further investigate its effectiveness and explore best practices for implementation. By examining previous research and conducting new studies, educators can gain a better understanding of the flipped classroom model and how it can be used to enhance student learning and engagement.

The study conducted by Gough et al. (2017) employed qualitative research methods to investigate the perceptions of 44 teachers regarding the flipped classroom model. The study aimed to explore the benefits of the flipped classroom model and its implementation in various grade levels and content areas. The findings revealed that teachers acknowledged the flipped classroom model as possessing three primary benefits: (a) providing opportunities for student collaboration, active learning, and higher-order thinking; (b) being beneficial for absent and struggling students; and (c) increasing parental involvement in learning processes. However, teachers also identified access to technology as a common barrier to implementing the model.

This study intends to examine the perceptions of early childhood development (ECD) teachers on the flipped classroom model in the teaching and learning process. Through this study, we aim to fill the gap in literature by exploring the flipped classroom's potential utility in ECD settings.

Other research studies have also supported the idea that the flipped classroom model can assist students who need more in-person attention. Leo and Puzio (2016) found that students in flipped classrooms demonstrated improved educational outcomes compared to other students in traditional classroom settings. Similarly, Bhagat et al. (2016) found that the flipped classroom model improved motivation, attention, perceived relevance, confidence, and satisfaction of students who struggled to achieve average scores. Furthermore, Gough et al. (2017) reported that teachers perceived the flipped classroom as a model that generates more time for individualized instruction, challenges students, and increases their interaction with teachers. Likewise, Rachmawati et al. (2019) found that teachers viewed the flipped classroom as a model that motivates students to learn and increases critical thinking and problem-solving skills. These studies support the flipped classroom model as an established and globally accepted approach.

**Benefits of the Flipped Classroom**

The flipped classroom provides a number of advantages. These include the model's general applicability across contexts, learner groups, and subject areas, as well as its suitability for addressing particular pedagogical challenges like helping persistently absent or struggling students and fostering student collaboration (Chen, 2016, Olakanmi, 2017, Unal&Unal, 2017).

**Performance**

The flipped classroom boosts learners' performance improvements during a given period compared to traditional classroom environments across educational contexts and demographic and regional groups (Unal & Unal, 2017).

**Support of Absent Students**

Flipping the classroom may help absent students. The concept was developed in an effort to help frequently

absent students keep up with what they were supposed to know (Bergmann & Sams, 2012). Recent research reveals that teachers think the flipped classroom improved the academic results of absent students (Gough et al., 2017). When a student knows they will miss class, the teacher may offer them access to the necessary videos so they can catch up at home. Due to the increased flexibility of direct instruction made possible by the use of video tools, the student still has the chance to make up lost ground even if the absence was unplanned.

## Supports Struggling Learners

For the same reasons that it is useful for students who are regularly absent, the approach can benefit those who struggle to learn since it gives them the time they need to fully understand a subject or concept (Gough et al., 2017). Flipped classes are generally seen more favorably by low-achieving students than by high-achieving pupils. They gain more from the model's application because they are the ones for whom more one-on-one time with the teacher and more time to review important lecture material has the greatest potential to benefit (Bhagat et al., 2016; Nouri, 2016).

## Learner Collaboration

Cooperative learning, according to Hermanns (2015), takes place when students collaborate in a group to accomplish their learning objectives through discussion and peer evaluation. The social components of primary and secondary education depend critically on student collaboration. The flipped learning paradigm facilitates collaboration among students by providing them with a lot more flipped learning chances in higher education. According to Gomez-Lanier's (2018) research, students had favorable opinions of teamwork in the flipped classroom paradigm. According to data from Osgerby (2013), students' attitudes toward the flipped classroom system showed that they thought the model improved their ability to collaborate with their classmates. Teachers in secondary school settings held the same perspective and asserted that the approach assisted pupils in forming fruitful interpersonal connections (Gough et al. 2017). According to separate research, this is due to the model's increased face-to-face interaction time, during which the students are expected to rely on one another's knowledge, judgment, and skills in order to accomplish shared objectives (Gomez-Lanier, 2018).

Additionally, there is evidence to support the idea that flipped learning improves performance in part because of this higher level of collaboration. Al Zahrani (2015) observed that when students collaborate, they increase their communication and critical thinking abilities. Similar to this, the author of a study that compared flipped classrooms in which students worked alone and in which they collaborated came to the conclusion that the collaboration setting promoted learning and improved the effectiveness of in-class activities (Leo & Puzio, 2016).

## Parental Involvement

Parental participation, according to Karakus and Savas (2012), is the way parents allocate resources, such as time, money, and attention to their children within a particular field of activity, and it has a substantial impact on student academic attainment. Parental engagement might take the form of sending them to school, helping them with their homework, or providing them with various types of support and encouragement. In general, parents have a significant impact on their children's academic progress (Rahman & Manaf, 2017). Parents' involvement in their children's education is crucial for academic growth as well as homework, according to Barger et al. (2019). Parents' involvement in their children's education, according to Kostaris et al. (2017), promotes student engagement.

Although early results, the flipped learning paradigm has the potential to boost parental involvement. According to Gough et al. (2017), instructors thought that the flipped classroom increased parent participation in learner-centered conversations. Parents of challenged children may need to provide more

assistance because some of them are easily sidetracked. Parents are given the opportunity to fulfill this basic supportive role by moving direct instruction to the home. Parental involvement in flipped learning has some restrictions. While some parents may be unable at home during homework hours owing to employment or other commitments, others may be unable to assist their children due to language issues (Jomaludin & Osman, 2014).

## Instructional Considerations

The flipped learning approach enables professors to interact with students in a number of ways and to get much more involved in their problem-solving. In one study, teachers in flipped classrooms reported that the modality increased student-teacher interaction by putting it at the forefront of all classroom time, motivated students to learn, and provided more opportunities for students to engage in active and higher-order thinking. Similar to this, Chen (2016) discovered that the flipped classroom model allowed students more time to practice their skills and more opportunities to obtain assistance from their teachers, enhancing the efficiency of skill-based activities.

## Personalized Learning

Additionally, flipping classrooms allows teachers to more fully customize learning for each student (Gough et al., 2017). According to Bergmann and Sams (2012), the model facilitates education that is tailored to the individual needs of students by enhancing one-on-one teacher-student engagement and enabling teachers to individually develop lessons and activities that address those requirements.

## Flipped Learning and Inclusion

When all students receive instruction in the same setting and those who require special considerations are provided, education can be said to be inclusive (Al Hattami, 2019). Challenged pupils are seated in the least restrictive environment (LRE) when classrooms are inclusive. They are not required to relocate to particular locations and carry out distinct tasks. Instead, they learn alongside other pupils in a general education setting. There is significant reason to believe that the flipped learning paradigm has potential for inclusive classrooms where students with disabilities and students without disabilities are combined, even though Bergmann and Sams (2012) only used it to a general education environment. There are very limited studies conducted on the flipped classroom in inclusive learning but the findings of the model's efficacy and support for personalization and struggling students are encouraging. This is an area that demands further exploration especially with differentiation, self-pacing learning and immediate feedback. All of these are features of flipped learning that may be useful to students with disabilities.

## Differentiation

Offering a variety of focused, refined learning exercises or resources is referred to as differentiation. It comprises structuring educational options to accommodate varied learners' talents and requirements. Teachers differentiate instruction by taking into account the fundamental needs of each student (Holton, Farkas, & Warschauer, 2016). Since undifferentiated resources are frequently inaccessible to students who are struggling to learn, Hermanns, Post, and Deal (2015) emphasized the significance of differentiation for supporting these students. Flipped classrooms appear to be the best settings for practicing differentiated education.

Bergmann and Sams (2012) argued that flipped learning allows students who are struggling to receive more help and teachers using the flipped learning model have more in-class time to differentiate the lessons they offer. For instance, they can more freely employ one-on-one or small-group instruction to provide students the support they need to understand a concept or skill. Similarly, in the flipped classroom, the teacher may offer tiered activities with multiple options for completion designed for different students, presenting the same concept or idea but with differing degrees of challenge (Althatami,2012).

## Self-Pacing

The flipped classroom gives more flexibility for students to control how, when and in what manner they tackle each learning challenge. Bergmann and Sams (2012) pointed out that the model allows students who, for instance, struggle to pay attention to re-watch instructional videos as many times as they need to and in whatever environment works best for them. This is an example of self-pacing which allows students to determine how quickly they move through, and move on from each component of a lesson. Teachers record the instruction and make it available to students. Challenged students can rewind the video several times to master the materials whereas students who learn quickly can watch the instructional video and move to more complex concepts (Al-Hattami, 2019).

## Immediate Feedback

Another crucial aspect of successful teaching is feedback. Kim, Kim, Khera, & Getman, (2014) define feedback as the building block of assessment and an essential component of effective teaching. Feedback is derived from interactions between teachers and students and helps teachers adjust future lessons so that they better support student learning. It also helps students confirm their understanding of a concept and build confidence in their own abilities. Feedback is so important because it "enables good habits to be reinforced and faulty ones to be corrected"(Raman & Manaf,2017 pg???). Kostaris, etal (2017)identified two primary types of feedback namely, destructive and constructive. Destructive feedback hurts students and hinders their learning as when a student receives a comment on a paper that makes them believe they cannot do what was asked implying that the task is beyond their abilities. This type of feedback is often the result of insufficient attentiveness, effort, or time on the part of teachers. In contrast, constructive feedback empowers students and motivates them to learn. Paterson et al. (2020) indicated that feedback plays an important part in the learning process. Constructive feedback supports successful instruction (Al-Hattami, 2019). Receiving constructive feedback shortly after completing tasks is important for students in general and challenged students in particular as it helps to guide their learning process and keep them engaged both cognitively and emotionally

## Barriers to Implementing the Flipped Classroom

The flipped learning model is cost-effective, pedagogically progressive and allows teachers to focus on student interaction. For this reason, it is increasing in popularity. However, any attempted application of the model faces certain barriers including access to technology, technology malfunction, student resistance, lack of suitable instructional material or resources for creating it, and accessibility of necessary information.

### Access to Technology

Technology plays an important role in the education of students and difficulties with its accessibility can affect learners' performance. This is even more the case when one's learning model is dependent on at-home access to online videos. Teachers perceive access to technology as a major barrier to implementing the flipped classroom (Gough et al., 2017). Students who cannot afford a computer or a tablet will not have access to the at-home content that is so important for their education unless the school provides the necessary devices or other resources. This is an active and ongoing problem. In many parts of the country, poor families do not have access to the necessary equipment. Kashada et al. (2017) mention that unforeseen equipment problems can be an issue for the implementation of the flipped classroom. They also indicated that students may lack motivation in learning if the materials are not interesting. Bowers and Kumar (2017) indicated that another issue in the implementation of the flipped classroom is students' resistance to technology. This continues to be a major barrier to using the model well.

### Technology Malfunction

A related problem is that of a technology malfunction. A device prepared for video streaming or some

similar educational use may not work properly when it is needed. Chen (2016) found that students in the flipped classrooms were sometimes notable to load the instructional videos and therefore were unprepared for class the following day resulting in wasted time and leaving them behind on key material. Perhaps, the largest source of technology malfunction, however, is internet reliability and access. Students' home internet connections may fail while they are watching homework videos causing the same problem just referred to above.

## Instructional Material

It is not always easy for a teacher to find the material needed to translate an in-class lesson into a rich, instructive at-home video-guided experience. Chen (2016) found that teachers often could not find pre-made instructional videos covering the material they needed to teach and so were forced to make the videos themselves. Since the videos must be effective in the absence of an instructor, they are time-consuming to produce which eats into teacher preparation time and places an additional burden on them. Newman, (2016) reported a similar pattern among the teachers he studied.

To alleviate the situation, Raman & Manaf (2017) suggested that teachers' collaboration that may lead to job satisfaction and learners' achievement may come by when teachers share their material to make their job easier. Even when video creation is not an issue, the model can still be preparation intensive. In addition to the challenge of locating quality pre-made instructional videos, teachers report that it is also time-consuming and difficult to prepare the materials necessary for active, engaged in-class activities such as worksheets and other supports, especially because these materials needed to be well-aligned with the instructional videos and must promote interaction (Chen, 2016).

Beyond these problems with sourcing or producing instructional material, the use of at-home videos presents some potential challenges. Some students may lack engagement with the material while working independently at home in the absence of the support and encouragement of the classroom environment. In addition, students may struggle to manage their time while watching the video, meaning it may not be an effective method of information presentation. Herman (2015), in a study related to college undergraduate students noted poor time management as a critical factor and realized that some students were not dedicated and tended to procrastinate.

Accessibility of Information and Accommodation

These final two difficulties with instructional material are greatly exacerbated for students who already struggle to engage with educational content even in supportive classroom sessions. Teachers who implement the flipped classroom can, therefore, find it especially challenging to ensure that at-home instructional material is accessible for students with disabilities (Smith & Basham, 2014). For this reason, it is important that teachers ensure that accommodations are made for students with disabilities so that they can use and understand the material provided to them. In the absence of such accommodation, the model is simply ineffective for those students (Basham et al., 2016).

## The problem

The problem addressed in this qualitative research is that we do not know what ECD teachers' perceptions are about the flipped classroom in Early Childhood Development settings. There is a significant and notable lack of research addressing the efficacy of the flipped classroom model in ECD settings. In this study, we aimed to help remedy that lack of research by collecting in-depth, well-structured interview data cataloging ECD teachers' perceptions about how the model functions in ECD settings. Limited empirical work exists supporting the claim that the flipped classroom model was an effective strategy for improving young children's learning (Delozier & Rhodes, 2016, Unal& Unal, 2017). As mentioned earlier, some studies

(primarily conducted in the United States) do provide evidence that the flipped classroom model could help improve children's learning(Chen, 2016; Leo & Puzio, 2016; Unal & Unal, 2017). However, much of the literature attesting to the model's efficacy for improving educational outcomes dealt exclusively with college and high school students at the expense of early childhood development settings.(Cummins-Sebree & White, 2014; Munson & Pierce, 2015; Newman et al., 2016)

Although theoretical and design considerations support the view that struggling learners were likely to gain the most benefit from the flipped classroom model (Bergmann & Sams, 2012), literature addressing the use of the model in Early Childhood Development settings is sparse (Altemueller & Lindquist, 2017). The challenges involved in implementing the flipped classroom with young learners have not been well-explored (Smith &Basham, 2014). The shortage of research related to the use of that instructional model for Early Childhood Development learners justified this study.

These research gaps had potential consequences. At the very least, they restricted educators' ability to make well-informed decisions about the use of the model and how they might best assist teachers and students in trying to create safe, healthy, and stimulating effective ECD learning environments. At present, educators are implementing the flipped classroom model without fully understanding the potential value and potential detriments of doing so. The information generated by the present study about what ECD teachers experience in using the flipped classroom and their perceptions of the model's efficacy and outcomes might be invaluable to these individuals and enable them to reach better-supported and more confident conclusions about what course of action to pursue and how best to allocate public resources.

# METHODOLOGY

### Main Research Question

How do ECD practitioners implement the flipped classroom method in the teaching and learning process?

### Sub-research Questions

1. What are the benefits of the flipped classroom approach in teaching and learning process?
2. What are the possible barriers to the implementation of the flipped classroom approach in the teaching and learning process?
3. How can ECD practitioners effectively implement the flipped classroom approach in the teaching and learning process?

### Research Approach

The nature of research questions demanded qualitative inquiry for which qualitative approach was used. The research questions sought the views of teachers for teaching using the flipped classroom setting. The study was located in the interpretive research paradigm. According to Schmidt & Ralph (2016), the interpretivist paradigm focuses lenses on the way human beings attempt to make sense of the world. The thrust is to understand fundamental meanings attached to social phenomena by interpreting participants' views and understanding their environment. The interpretation of ECD teachers' perceptions of the flipped classroom model differs from one school to the other. Schools as miniature communities also interpret and implement the flipped classroom method of teaching differently. Twelve ECD teachers were interviewed to get their ideas and concerns about the teaching-learning process in a flipped classroom. Semi- structured interviews were conducted to gather data. An interview guide was developed.

# FINDINGS AND DISCUSSION.

### Discussion

The expansion of technology in the education sector has seen the in cooperation of different digital

resources that cannot be carried out aside from pedagogical strategies and methodologies that place learners at the center of the process of making them central characters of it. Proposals such as the flipped classroom approach are highly effective alternatives due to the benefits they bring to the teaching and learning process. It is therefore critical for ECD teachers not only to be familiar with these proposals, but also to experience first-hand the strengths and concerns of improvement that need to be considered for their implementation. For this reason, this study focused on the perceptions of ECD teachers on the implementation of the Flipped classroom method in the teaching and learning process at the formative stages.

In terms of the analysis of ECD teachers' perceptions of the Flipped Classroom methodology, generally, a high positive perceptions was noted. The positive perceptions coincide with studies carried out by Berman and Sams, 2012, Bhagat, Chang and Chang, 2016 and Al-Hattami, 2019. Most ECD teachers perceived the pedagogical importance of Flipped classroom than general communication critical basing their expressions on its relevance to the educational process in the contemporary context. The model was also perceived as having great relevance in the promotion of feedback, autonomous learning and group work. However the ECD teachers perceived the model of instruction having lower levels of communication which they linked with difficulties in understanding information due to unclear content and instructions.

The idea of re-watching videos had positive perceptions since failure since failure of reviewing teaching and learning materials is fundamental. Re-watching videos goes hand in hand with learners' acquisition of knowledge, thereby increasing learners' level of commitment to concepts and subjects taught (Clark, 2015). The capacity for learners' autonomous learning and self-regulation was yet another perceived idea. However, the level of digital competence was perceived as having a serious adverse impact on the implementation of the Flipped Classroom methodology. Younger teachers also expressed better technological mastery.

The interviews with teachers were audio recorded after seeking permission from the participants. Then all the audio recorded data was transcribed for the purpose of analysis. Interviews were analyzed through thematic analysis. The theoretical or conceptual framework supported by constructivist theory provided themes and sub-themes. Data was analyzed keeping those themes in view that emerged from the theory. At the first stage, open coding was done to reduce the chances of losing any additional information. Data was further analyzed under the themes and sub- themes provided by the theory. The major themes provided by the constructivist theory include: the student-centered approach, role of instructor, nature of the learner, learning environment, and group work where there is co-operative and collaborative learning. The data under these themes and sub-themes is presented below.

### Theme: The Student-Centered Approach

In the student-centered approach, there is a complete shift from the teacher to students. During the whole learning process, the teachers' role is passive and the learner's role is active. A learner is an independent person who is responsible for his own learning. The flipped classroom idea supports learner -centered approach towards learning. Active learning, supported by constructivist thoughts take place in student-centered flipped classrooms (Strayer, 2012). As per teachers' views through the lecture method, students might not take interest in their learning. For this reason, teacher 3 emphasized the need and importance of the student-centered approach. Teacher 6 also highlighted the effectiveness of student centered approach in the flipped classroom and commented, that *"Learners are actively involved in the teaching learning process in the flipped classroom"*. Another interesting thing Teacher 8 shared was that learners get very active, participate and share their views during class discussion and learn from each other.

### Theme: Role of Teacher

Teacher 10 said that in a flipped classroom, learners are engaged in active learning and explore concepts on their own (Johary, 2015). However, Teacher 7 suggested that the constructivist learning environment be

developed for the learners so that they can identify and develop their potential further. Regarding the teacher's role in a flipped classroom, Teacher 4 was of the view that a teacher acts as a guide and facilitates learning in the classroom or in their learning where learners need any help. She further said that in a flipped classroom, the teacher needs to provide CDs that contain related videos so that learners can better understand and discuss the content in class.

Teacher 2 said that continuous assessment needs to be done to identify learners' level of mastery. Teacher 7 appreciated the formative and summative assessment which were utilized during the implementation of the flipped classroom model and said that through assessment, they can best identify the needs of the learner. Teacher 11 also said that the teacher's role is not to overload the learners and give them the burden of homework. However, she shared her thought that if the flipped classroom concept is applied for the whole session for a larger period of time, then maybe different concerns can be raised regarding the coverage of content.

### Theme: Nature of the Learner

Basing on her experience on the flipped classroom, Teacher 5 explained that the teacher needs to understand and know about the nature of the learner who she/he is going to teach. In a constructivist flipped classroom, learners act as social, active and creative participants. (Raman, et al, 2014). Regarding the role of students in the flipped classroom, Teacher 3 said that the idea of video-watching as homework before the class session helped to challenge the learners to take responsibility of their own learning. She further suggested that flipped classroom model can be applied at all grade levels. The students can watch relevant content videos and by doing different activities and discussions in a flipped classroom they can learn more. They can participate more actively rather sitting passively in the classroom. Teacher 9 further highlighted the active nature of learners and explained,

*"Learner in flipped classroom best understand the concepts when they watch videos as homework. They better explain issues further when they have concrete media.*

When talking about the role of a learner, Teacher 6 further shared that, some schools also give the CDs related to content. However, they also give learners the burden of written homework that neither motivates them nor develops their creativity. She said that activity-based learning is an effective way because learners work in groups and develop interpersonal as well as intrapersonal skills. Specifically talking about the homework she said;

*"Teachers who gave an activity as a home work and also some written homework, are not able to develop in their learners creative thinking as they do all their home task with the help of parents"*

### Theme: Learning Environment

The constructivist school of thought pays special attention to creating a safe, stimulating and healthy active learning environment for young children. Learning in a constructivist classroom means socially dependent construction (Petrovici & Nemesu,2015). The role of a teacher is to form a learning environment which is more energizing, interactive and informative (Johnson &Renner, 2012). As per views of the teachers, learners can only learn in an environment where they can actually perform the task. Regarding the learning environment, all teachers were of the view that learners can only learn in an environment where they can actually participate and perform different tasks. Constructivists strongly believe that to effectively integrate Information and Communication technology (ICT) and for achieving students' participation and involvement in the classroom, motivation is a necessary component (Munson, 2015). Regarding this, Teacher 4 was of the view that it is necessary to intrinsically motivate learners towards their learning. She further explained that to implement flipped classroom model, it is necessary to motivate the learners and be given equal opportunities in all activities and subjects.

The teachers were asked to discuss the effectiveness of videos and CDs in teaching and learning and academic performance. Teacher 7 accepted the effectiveness of ICT use in ECD classrooms. She said that the use of ICT especially in flipped classroom model motivated learners and increased their academic performance. She further said that before implementing this model, parents complained about their daily load of written homework for learners. Most parents said that they did not have enough time to assist their children learn and read books. Teacher 10 said that by introducing this method, it overcame parents' major concerns regarding homework. She further shared;

*"Giving CDs to learners, to watch subject related videos, highly involved both learners and parents and had long lasting effects''.*

Feedback provided an opportunity learners, engaged them in group discussions and encouraged active participation in the learning process (Fulton, 2012). Teacher 11commented that immediate feedback helped in classroom assessment of their performance. She said that during activity inclass, timely feedback shows learners that they are on the right track. Feedback from peers and teachers has a great importance.

Constructivists assert that learning entails self-regulation and conceptual understanding through reflection (Nouri, 2016). Teacher 12 shared that when learners came into the classroom after watching videos at home, they discussed and expressed their knowledge about the topic and it really helped them in their learning. Highlighting the importance of reflection she said;

*"Relating and sharing of knowledge gives learners an opportunity to rethink and build new knowledge on an existing one, co-construct knowledge on their own".*

## Theme: Group Work

Apart from the effectiveness of hands-on activities, teachers and students also discussed the importance of group work. The constructivists believe that learning takes place when learners work in small group-based activities in which they learn best through social construction (Nouri, 2016).. During the interview, Teacher 9 said that she believed learners can learn better by listening and talking to each other as they share their experiences. She further explained that it is proved now after the successful implementation of the flipped classroom model that learners' academic performance, motivation and willingness increase when they work on different activities in groups.

The flipped classroom model highly encourages group work where co-operative and collaborative learning takes place. In co-operative learning, work is divided among the participants and each member has to complete their portion of work (Rahman, et al, 2014)while in collaborative learning, there is mutual engagement among the participants while performing group work (Yarbro & Arfstrom, 2015). Describing views regarding the effectiveness of cooperative learning, Teacher 2 explained that the purpose of group work was to develop responsibility in learners and make them independent. She also explained that learners become able to evaluate their own work as well as their peers work. Describing the role of teacher during group work, Teacher 6 suggested;

*"Teachers need to be keen observers when learners work in groups, that is, be physically and emotionally available all the time''.*

She highlighted that some learners do not participate and remain shy, and depend on their peers, hence, teachers should play active role and make sure that every all learners actively takes part in every activity or discussion, and does not hesitate in asking questions.

While sharing thoughts about collaborative learning, Teacher 5 expressed her views and said that learners learn best in sharing with peers as opposed to individuals. She further explained by giving the example that,

if an individual learner faced any difficulty, they may ask for a solution from a teacher but just memorize the content. However, when teachers involve learners in an activity and ask everyone to perform it, they learn from each other by identifying mistakes. She also said that actual cooperation takes place when learners collaborate with each other during their learning. Teacher 7 pointed out important things about group formation and said that groups should comprise of mixed ability learners so that they can help the slow learners as well. Also, there must not be more than five to six students in one group so that they get more opportunity to participate and not sit idle and start depending on others.

Findings supported the flipped classroom idea in which teachers highlighted that learners were actively involved in the teaching and learning process. It was found from data that learners remained active, excited and waited for the flipped lessons that helped in learning and improving their performance. Teachers attested that learners are motivated and enjoy the use of ICT in their flipped lessons. They also claimed that the flipped classroom model gave learners opportunity to reflect on their learning and connect school life with real life. This is similar to the research of Bergmann and Sams (2012) where they discussed that flipped classroom consists of activities that make connections with real life and helps in enhancing the effectiveness of the learning environment.

Teachers also suggested that the lecture method can be made effective if teachers involve learners in classroom discussion. Teachers opined that learners can learn and understand better in a learner-centered flipped classroom where they actively participate. Views of the teachers are akin to the findings that in the flipped classroom, learners take an active part by providing feedback and support to one another. It helps in decreasing failure rates and improving classroom grades (Jensel et al, 2015).

Activity-based learning in the flipped classroom was very much supported by most teachers because learners worked in their groups and developed interpersonal as well as intrapersonal skills. Results of the current research are consistent with Mason, Human and Cook's (2013) study which concluded that learners remain motivated, take interest and showed higher scores and achievement level in the flipped classroom than in traditional classroom. Teachers said that learners were satisfied with the flipped learning environment in the classroom because it had no burden of homework. Use of ICT gave them an opportunity to connect the concept with real life problems. They also enjoyed group work and learning activities. This technique provided an opportunity to shy learners to come forward, participate and perform different roles in groups.

Teachers also shared that the learner- centered approach of the flipped classroom is more effective than traditional one. They opined that learners feel more comfortable in the flipped classroom and every one shared their thoughts confidently. In collaborative learning, there was mutual struggle between students to solve a problem or perform an activity while in cooperative learning, every individual had her own responsibility in a group.

The study also indicated that teachers hold positive views about teaching in a flipped classroom. The teacher-centered approach provides a one way approach to teaching. In the flipped classroom, the teacher's role is only to facilitate learning. Teachers also admitted the effectiveness of the flipped classroom because it results in learners' higher academic achievement. They endorsed the flipped classroom as a mode which can be applied at all grade levels. Teachers pointed out that it will take much time and money to prepare CDs. However, it was admitted that once made, it can be used or installed in all the computers in the computer lab. Videos should be relevant to the Zimbabwean context. Teacher 10 also shared her concern that the over-crowded classrooms in our system can create different challenges in the implementation of the flipped classroom. Teacher 4 also suggested that the administration needs to play the most important role by providing all the necessities and financial help for effective utilization of the flipped classroom concept in Zimbabwe.

# CONCLUSIONS

The flipped classroom approach is a relatively new idea, having only been introduced in 2007, but it quickly spread across the globe. The current experimental investigation was designed and carried out with its effectiveness as a primary consideration. Results from its ramifications, contribution, and potential for further research were encouraging and would assist to enhance the state of ICT in Zimbabwe. Facilities are actually present; nonetheless, they must be used properly or implemented. This study is expected to lead to further flipped classroom deployment at all educational levels in Zimbabwe. That will contribute to the advancement and technological foundation of our educational system.

The results of the study may help school administrators decide whether to use the flipped classroom model for scientific instruction at their institutions. They can apply the flipped classroom concept in other institutions as well. For teachers, parents, and administrators, school officials can set up relevant workshops and training. The results of the current study have ramifications for parents as well because they can employ more online movies to increase their kids' knowledge and comprehension. The study also has implications for institutions of higher learning. They can put the flipped classroom approach into practice to improve student learning.

# RECOMMENDATIONS

This study will have consequences for thinkers and researchers in Zimbabwe since it will offer a fresh perspective on existing questions. In order to keep up with the technology-driven education system of the twenty-first century, it is a means to inject innovation and creativity into our teaching and learning processes. Plans and policies are available, but action must be taken immediately to put them into practice, if only at the individual level.Based on the discussion above, the following recommendations are made to future researchers, teachers, parents, school administrators, and decision-makers.

## Recommendations to Future Researchers

This basic qualitative study helped to explore ECD teachers' perceptions about using the flipped classroom model in inclusive settings. The concept of the flipped classroom remains unknown to various school in Zimbabwe and around the world. It is difficult to make a general statement about its success or failure. There is limited literature related to the flipped classroom model. More research is needed to make data available to the public about that instructional method. Future researchers may explore:

- Obstacles related to the expansion of the flipped classroom; for example, in Zimbabwe, some parents are so powerful that they can prevent any change from happening in education.
- Reasons why some teachers are reluctant to adopt the flipped classroom model and how to overcome the challenge.
- The role of school staff in the successful implementation of the flipped model.

## Recommendations to Teachers

This research enhanced our understanding of the flipped classroom. It also explored how that model could be used to support young learners. The first recommendation is that teachers should label lessons and not learners. Labeling the lesson eases its understanding but labeling learners may contribute to their failure. Some ECD children have different learning styles and developmental patterns, hence grasp concept at different rates. It would be a mistake to give up teaching them because, with proper support, they could develop skills to mitigate their learning difficulties. The second recommendation is that teachers, especially veteran teachers, should not fear using technology. Teachers may fall behind if they resist the introduction of a new concept dominated by technology. The flipped classroom uses technology extensively.

The third recommendation is to encourage teachers using the flipped classroom model to join various groups on social media. Those groups allow teachers to interact and share their ideas.

### Recommendations to Parents

Parents are important partners in ECD education. The flipped classroom model allows them to watch the instructional videos at home with their children. Learners' motivation may be boosted if they see their parents involved in their education. Learners spend most of their day with their teachers. The portion of the time they spend with their parents should be used to support and encourage them to learn.

### Recommendations to School Administrators

School administrators should organize professional development workshops regularly. These improve teachers' skills and equips them to meet their learners' needs. The flipped classroom is a rapidly expanding model. It uses techniques that change daily. Teachers and schools who do not adapt to the evolution of these techniques will be left behind.

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