



Teachers' Perspectives on the Development of 21st Century Skills in Early Childhood Development

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Abstract: *The study focusses on teachers' perspectives on the development of 21st century skills in Early Childhood Development (ECD). The study was motivated by mixed reactions by various teachers on the competency-based curriculum. A qualitative approach was adopted in order to get in-depth information from the teachers in their natural setting. A case study design was adopted drawing on five schools which were purposively sampled to obtain rich data. Semi-structured interviews were used to generate data. The study comprised ten Early Childhood Development teachers and five school heads who were purposively sampled. Data were analysed using thematic content analysis. The findings reveal that teachers have a good understanding of the 21st century skills. A few teachers, however, conflated the 21st century skills with learning areas. Findings further reveal challenges such as misconceptions on play pedagogies and lack of resources. The study recommends, strategies such as engaging in income generating ECD projects will capacitate schools to buy teaching and learning materials for teachers necessary in developing the 21st century skills. Another recommendation is the implementation of staff development for teachers and administrators on ECD curriculum.*

Keywords: Childhood, Development, Perspectives, Skills, Teaching

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1. Introduction

This study focusses on teachers' perceptions of the development of 21st Century skills in Early Childhood Development. The introduction of 21st century skills in the teaching and learning in ECD education has become topical and dynamic in many learning areas. It is now mandatory for every learner to acquire 21st century skills at an early stage, but it involves much investment for it to be successful. A skill is viewed as "the ability and capacity acquired through deliberate, systematic, and sustained effort to effectively carry out complex activities or job functions" (GoZ, 2015). In the light of this, 21st century skills are treated in this study as "life and career skills, learning and innovation skills, and knowledge, media and technology skills (Akanca, 2020). Such skills include learning and thinking skills, digital culture skills, as well as life and work skills (Ahmed, Alharbi & Elfeky, 2022). Various components of 21st Century education include problem solving,

critical thinking, collaboration, authentic learning, appropriate use of technologies and cross-disciplinary teaching, creativity, communication reasoning analysis, interpretation and synthesizing (Chu, Reynolds, Tavares, Notari & Lee, 2021). This research made an attempt to unravel the perceptions of teachers on the development of the highlighted 21st Century skills in Early Childhood Development.

2. Literature Review

2.1 What are 21st century skills in ECD?

Globally, there has been a shift, with much emphasis being placed on the importance of learning the 21st Century skills and practices. This involves development of cross-cutting skills that cut across disciplines. Learners are supposed to be involved in problem solving

and information literacy and collaboration, which are acquired through inquiry-oriented approaches to learning (Beswick & Fraser, 2019).

Due to the challenges that the world is facing, there is need for a new set of skills so as to be able to overcome the broader challenges that the world encounters. Such

skills are in a broader sense the 21st Century skills. Furthermore, such skills include effective communication, initiative and entrepreneurialism, with an ability to access and analyse information (Al Kandari & Al Qattan, 2020). Trilling and Fadel (2009) aptly summarised the concept of 21st Century skills through a diagram that showed four broad categories of the skills.

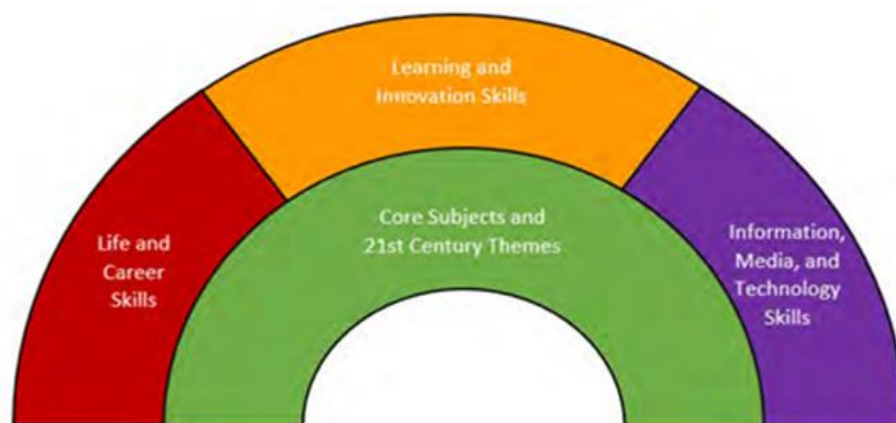


Figure 1: groups of 21st Century skills (adapted from Trilling and Fadel 2009)

Figure 1 above shows that in any curriculum, there are core subjects and these subjects or learning areas have cross-cutting themes which depict 21st Century skills. The teaching and learning of such areas should also be done through impartation of 21st Century skills. These learning areas form the basis of the other three groups which are life and career skills; learning and innovation skills; and information, media and technology skills. This explains why the 21st century skills were summarised as “life and career skills, learning and innovation skills, and knowledge, media and technology skills” (Akcanca, 2020). Garay and Quintana (2019) further added that 21st century skills are a range of skills that are essential for survival in the 21st Century. In this regard, it can be posited that technology is considered as a central 21st century skill due to its demand and global usage, thus a very essential skill to be imparted to learners, even from a very tender age such as ECD level.

Education sectors worldwide, particularly in developing countries are increasingly emphasising the importance of developing children’s 21st century skills required in the current and future digitalised world. Since learning begins in children birth (Dong & Mertala, 2021), events in early childhood play a critical role in shaping the educational outcome for duration of a child’s life. However, Nieveen and Plomp (2018) noted that the age between 3-6 is a very significant in the life of the learner. Families and schools should therefore provide environments that enable 21st Century skills to be nurtured in the lives of the growing children. It has been noted that the acquisition of 21st Century skills is possible from three from both outside and inside the school environment (Clevenger & Pfeiffer, 2022).

The 21st Century skills are getting increased emphasis worldwide. In the United States, Williams (2021) noted the growing significance of the thrust towards the development of these skills in learners at ECD level, and throughout the curriculum. Similar strides have also been witnessed in many countries in South America, especially Brazil and Argentina, which started setting pace for other Latin America and the Caribbean countries (Pedro, Miller & Bray, 2012). Likewise, an increasing shift towards the development of 21st Century skills has also gained wider momentum in Europe (Connolly, Scheepers, Coggins, Vermeire, van Tongeren, Heinemeyer, Fantke... *et al*, 2022). Asian countries have also not been spared by the wave. China (Wang, Lavonen & Tirri, 2018; Parker, Xu & Chi, 2022), Indonesia (Munastiwi, 2021), Kuwait (Fayiz, Palaiologou & Folorunsho, 2016) and Saudi Arabia (Alghamdi and Al-Al-Ghamdi, 2021) have both focused on development of 21st Century skills at kindergartens through provision of the appropriate conditions for the development of the child. This development entails physical, mental, emotional, spiritual and social growth in line with the needs and abilities of the child.

Zimbabwe has also made efforts towards the development of 21st Century skills in the ECD level, as well as across the curriculum. Whilst the skills appear to be a broad spectrum covering the primary and secondary school levels, it is important to highlight that the Curriculum Framework was explicit for each of the levels. For ECD, the framework provided for the development of the “acquisition of foundational skills for learning in the cognitive, psychomotor and affective domains, establishment of building blocks for socialisation; development of an initial appreciation of national heritage and identity; development of physical,

psychomotor and social competencies; demonstration of early signs towards lifelong learning and problem-solving aptitudes; acquisition of basic literacy and numeracy skills, including basic practical competences necessary for life and work” (GoZ, 2015:22). A closer look at the goals shows that the thrust towards the development of 21st Century skills is greatly embedded in the national curriculum for ECD learners with the view that learners will be able to respond to life challenges (Gumbi, 2019).

The technological developments have taken place have placed the world into a digital world. This influences countries to determine the skills required to keep pace with the changing and developing world. There is need for innovations and adjustment to these changes (Beers, 2011). 21st-century skills such as creativity critical thinking, problem-solving, communication, technology literacy, social skills, and collaborative can be achieved through the understanding of classical education in classrooms. (Partnership for 21st Century Learning; P21 Framework Definitions, 2015). Therefore, it is imperative that life skills be given more importance in education. The 21st Century skills development should move away from the theoretical, towards more technical knowledge or skills so as to raise individuals who can cope with changes which are more demanding and different from the past (Güngör and Gölo ğlu Demir, 2022). The teacher is a central and critical component in ensuring the success of the implementation of the transfer and development of 21st Century skills among the learners.

The Zimbabwe ECD curriculum framework (2015-2022) includes new learning areas such as Indigenous Language, Visual and Performing Arts (Expressive Arts), Physical Education, Mass Displays, Mathematics and Science, Family and Heritage Studies and Information and Communication Technology which incorporated the teaching of 21st century skills. However, teachers have different perceptions on the development of 21st century skills in ECD. Some teachers are afraid of change, some have technophobia, whilst some do not understand those 21st century skills. In some schools like in marginalised areas it becomes a challenge to teach some 21st century skills because it consists of lot digitalised gadgetry.

Broadly, the research aims to explore how do teachers view the development of 21st century skills in ECD. Specific questions include:

1. What 21st century skills are being promoted in ECD?
2. What challenges do teachers experience in developing 21st century skills in ECD?
3. How do teachers strategise to enhance the development of 21st century skills in ECD?

2.2 Theoretical framework

The study is informed by Vygotsky’s (1978) social-cultural theory which is a social constructivist theory that promotes the co-construction of knowledge where both the child and the teacher actively engaged collaboratively to construct knowledge (Swain, 2011; Shabani, 2016). Social constructivist theory can be adopted through peer-to-peer interaction. Vygotsky (1978) says that learning is situated within a particular culture and society (Gordon & Browne, 2017) which enables knowledge to become contextually defined and relevant. Hence through the use of 21st century skills children can be engaged in collaborative learning and do their schoolwork as a team. Vygotsky’s (1978) social cultural theoretical perspective seeks to explain the growth of an individual in terms of opportunities, guidance and support provided through the broader cultural context (Manzunzu, 2022).

Tudge and Scrimsher (2003) noted that Vygotsky was interested in what the child himself or herself brought to the interaction, what other children or learners brought, as well as how the broader cultural and historical setting shaped the interaction. This means that, knowledge is socially constructed through interaction with a more knowledgeable other. Hence through interaction learners will be able to scaffold each other on their own. Through the use of 21st century skills learners can be able to interact with other peers through collaboration and the use of digitalised gadgetry.

Vygotsky (1978) introduced the principle of the Zone of Proximal Development (ZPD) which is the distance between actual development level of development as determined by independent problem solving and the level of potential development as determined by independent problem solving under adult guidance or collaboration of more capable peers (Follari, 2017). This means that, the child’s learning journey begins with the knowledge gained in their day to day lives. The teacher through the use of 21st century can support the child to suit in the surrounded environment such that he or she can be able to do anything at an early stage. 21st century skills enable children to fit in the digital world and allow learners to be participative. In other words, the child can be very active in everything he or she do.

According to Vygotsky play is an essential element in early learning as it helps children to make sense of what they learn, because during play they are free from all the practical constrains of real life situations (Bruce, Meggit & Greener, 2010). In addition,

In play, a child is always above his average, above his daily behaviour, in play it is as though he were a head taller than himself. As in the focus of a magnifying glass, play contains all developmental tendencies in a condensed form, in play; it is as

though the child were trying to jump above the level of his normal behaviour (Vygotsky, 1967, p. 16 cited in Bodrova and Leong, 2015, p. 371).

This means that using 21st century skills children can be engaged in play and in the process, they develop critical thinking and creative skills through games.

Vygotsky's (1978) further states that language is an essential mediating tool. Mediation according to Vygotsky (1978) refers to the part played by other significant people in the learners' lives. The use of appropriate language helps learners to master the 21st century skills. Through the use of the first language children develop the skills at a faster pace as language is a thinking tool.

The idea of ZPD is to direct attention to the view that instruction should be focused on improving psychological functions to higher levels than repetition. Das (2020) noted that individual learners have individual zones of proximal development. Teaching each learner according to his/her ZPD is crucial because the tasks are made simpler for the learner and the learner's intellectual ability to deal with the task is considered. Teaching within the ZPD involves providing activities in the class that are of appropriate difficulty as measured by the mistakes that students make while trying to come through in a process that should be higher than zero for a student to learn.

Scaffolding is also very important in ECD. The teacher, parents, guardians and siblings play a very critical role. Vygotsky recommends the use of assisted instruction. It is important for teachers to give learners tasks to perform individually and then offer assistance to the learner. According to Vygotsky (1999), problem solving should be under the guidance of a competent adult or capable peer or from teachers. In the light of this, analysing the perspectives of teachers towards the development of 21st Century skills in ECD becomes critical since teachers are central in the process of scaffolding learners to develop the skills.

3. Methodology

The study adopted an interpretive qualitative approach. Interpretivism as a philosophy involves making meaning out of responses given by participants (McKim, 2017). Interpretivism allows for the discovery of patterns and seeks to gain an understanding of the meanings that people attach to events and enabled forward and backward linkages between induction and deduction (Morgan, 2014). In this study, a case study was adopted. Semi-structured interviews were used to collect data. Interviews enable the researcher to probe further and give the researcher an opportunity to follow up on any revealing leads given by participants. Some of the data was also collected through open ended questionnaires. Gunasinghe, Hamid, Khatibi, and Azam (2019) define a questionnaire as a document with questions prepared by the researcher to help them gather relevant information for a study. A questionnaire was used because it enhanced the participant to respond freely without fear of reprisal from the researcher, hence, minimising on researcher bias (Creswell & Creswell, 2022). Thus enhancing triangulation of data. Purposive sampling was employed because it allowed the researcher to have data rich participants. The study consisted of ten purposively sampled ECD teachers and five school heads. Data were presented in narratives. For the purpose of analysis, thematic content analysis was adopted... Three priority themes that answer the research questions in their respective order have been adopted for data presentation. These themes are:

1. 21st century skills to be promoted in ECD?
2. Challenges experienced by teachers in developing 21st century skills in ECD.
3. Strategies adopted to enhance the development of 21st century skills in ECD.

4. Results and Discussion

21st Century skills in ECD

From the study, it emerged that the teachers were developing various 21st century skills. However, it appeared the teachers were doing this without knowing the most skills they were developing as targeted for the 21st century. The teachers mostly developed skilled such as critical thinking, communication, problem solving, numeracy, language literacy and digital literacy

Teachers` identification of 21st century skills

Name of teacher	21 st Century skills					
	Critical thinking	Communication	numeracy	Digital literacy	Language literacy	Problem solving
Teacher 1	√	√	√	√	√	√
Teacher 2	√	X	√		√	√
Teacher 3	√	X	X	X	√	√
Teacher 4	√	√	√	√	X	√
Teacher 5	√	X	X	X	√	√
Teacher 6	√	√	X	√	√	√
Teacher 7	√	√	√	√	X	X
Teacher 8	x	√	√		√	√
Teacher 9	x	√	√	√	√	X
Teacher 10	√	X	√	X	√	√

Key

√- Identified the skill

X- Failed to identify the skill

From the table above, the most common 21st skill identified was problem solving followed by digital literacy with language literacy, numeracy and communication occupying the least positions. Language literacy and numeracy were not regarded by the teachers as skills, instead they conflated them with subjects. Teacher 3 said;

Language and numeracy are not skills but they are subjects offered in ECD. These are Science and Mathematics as well as English and Indigenous Language. It is in these subjects we get skills to be developed and all those mentioned are developed by these.

Teacher 5 also added, “in ECD we do not teach reading, writing and number work. This is according to policy”.

This was also supported by teacher 6 who said:

The competency-based curriculum is emphasising the development of 21st century skills in ECD. However, these are not clear as some of the so-called skills are subjects in themselves. Some

skills like communication are day to day activities that children do even at home and they cannot be taught at school.

From the submissions by the teachers, it is clear that the teachers could identify different 21st century skills developed in ECD. Teacher 1 and 7 showed that they could identify all the skills without challenges whereas Teachers 3, 5 and 6 could not understand some of the 21st century skills as they tended to confuse them with subjects. Their understanding resonates with the definition that a skill is the ability and capacity acquired through deliberate, systematic, and sustained effort to effectively carry out complex activities or job functions (GoZ, 2015; Garay & Quintana, 2019; Akcanca, 2020). Contrastingly, Teachers 5 and 6’s arguments also showed that they were misinterpreting the Statutory Instrument 106 of 2005 which stipulates that there should be no reading, no writing and number work in ECD classes A and B. However, this does not mean to say pre number or pre- reading skills should not be developed. These skills are part of the 21st skills to be developed. In fact, learners are supposed to be exposed to these basic skills including problem solving, information literacy

and collaboration through play based, inquiry-oriented approaches to learning (Nieveen & Plomp, 2018; Beswick and Fraser, 2019; Dong & Mertala, 2021).

On the issue of communication as a 21st century skill to be developed, the teachers seemed to suggest that communication is something that a learner can master without formal teaching. This sentiment concurs with Jalongo (1992) who described speaking as a neglected skill of the language, this also exposes the teachers' ignorance to the fact that there are various ways of communication such as speaking, reading, writing, drawing and choreography. For successful development of the 21st Century skills there must be co-construction of knowledge where both the child and the teacher actively engaged collaboratively to construct knowledge (Swain, 2011; Shabani, 2016). Vygotsky's (1978) further states that language as an essential mediating tool can be used in such teaching and learning collaborations.

Challenges experienced by teachers in developing 21st century skills in ECD

The study showed that teachers met challenges in the development of the 21st century skills among ECD learners. Challenges included misconceptions about play pedagogies, language of instruction, lack of agency on teachers and lack of teaching materials. The above cited problems lead to teachers view the development of 21st century skills as untenable.

Misconceptions about play pedagogy

The study showed that some teachers have misconceptions about play as a teaching and learning method in ECD. There is a misconception on play as a teaching method as they view it as a waste of time and does not have potential to develop the 21st century skills. Some school administrators do not see the pedagogical value of play yet it is the central pedagogical practice in ECD. To confirm the misconception, Head 1 said:

I have always visited the ECD classes and they will be busy playing. I wonder if they can develop any 21st century skill as expect by the competency-based curriculum.

Head 4 added,

These children are always playing. Drawing and colouring will not help us achieve the results we want to have. I wonder why the government is wasting resources on this programme.

The misconceptions provided by the school heads expose a pedagogical gap among important stakeholders such as administrators. The school heads' sentiments shows that they may force the teachers to abandon correct ECD pedagogies thereby compromising the development of the 21st century skills. The misconception about play pedagogy contradicts with Vygotsky's (1978) view that

play is an essential element in early learning as it helps children to make sense of what they learn. During play, children are free from all the practical constrains of real-life situations, therefore, can easily develop the required skills (Bruce, Meggit & Greeiner, 2010; Follari, 2014; Manzunzu, 2022). This means that as children engage in play and in the process, they develop skills such as critical thinking and creative skills through games, stories, song and dance and other cultural tools. In addition, coupled with lack of agency on the part of the teachers, they will end up viewing the development of 21st century skills as a waste of time of unattainable.

4.3.2 Misconceptions about language

In the study, it emerged that teachers have misconceptions about the use of English language as a medium of instruction in ECD classes 'A' and 'B'. This has put pressure on the teachers as they abandon other activities at the expense of teaching English. To corroborate this, Teacher 1 said,

In as much as we would want to develop all the 21st century skills in our learners, we are under pressure to teach English as it is the parents' measure of their children's learning. In fact, communication which is one skill to be developed is only viewed through English rhymes and not any other forms.

To support the view, Teacher 2 said,

We are under pressure to use English everytime. This has also forced us to abandon traditional games or rhymes that are usually done in Shona. My thinking is that the development of the 21st century skills can be easily achieved as we use the mother language.

The findings show that stakeholders such as school administrators are not happy when the children continue to be taught in the mother language. The study has shown that the teacher may lose respect with parents and school heads if he teaches children in the mother language, yet this gives the child an advantage in the mastery of the 21st century skills. Research conducted by Gudyanga et al (2015) revealed that eight six percent of parents preferred the use of English as the medium of instruction in ECD, while sixty-six-point seven percent of teachers preferred both English and Shona together. This finding contradicts Vygotsky (1978) who states that language is an essential thinking and mediating tool. These mediational tools include the mother language which in view is the most appropriate medium of instruction in ECD (Bruce, Meggit & Greeiner, 2010; Swain, 2011; Shabani, 2016).

Lack of teaching and learning materials

The study revealed that the schools do not have adequate teaching and learning materials that are needed in the development of the 21st century skills. Challenges with resourcing the ECD centres come with the view that some parents feel that it is the government's duty to resource the schools so they are reluctant to pay their levies. However, the government is not doing much to resource the ECD centres and leave the responsibility to parents (Director's Circular 48 of 2007). Even, when government provide funds through the Basic Education Assistance Module (BEAM) schools do not give preference to ECD learners during selection. To confirm the sentiments, Teacher 8 said,

There are no teaching and learning materials in the schools. We want to develop the 21st century skills so that the learners move with time but there are no resources. How can you teach about a computer when the school does not have one?

Teacher 9 concurred,

These schools are under- resourced. Parents are not paying levies may be because they are hard hit economically. However, the government is not doing enough to resource ECD as preference is given to upper levels. Even during BEAM selection, ECD learners are not considered. For us to fully develop the 21st century skills we need resources.

Teacher 10 supported,

We need resources for us to fully develop the 21st century skills in ECD. We are in the digital age but we don't have computers. We are theorising computers and how do you expect the ECD learner to master the skill. Remember, they learn better when we concretise matter.

The results showed that the teachers are grumbling with lack of resources in ECD. To them the lack of resources (teaching and learning materials) impedes their smooth discharge of duty as they seek to develop 21st century skills among ECD learners. Resources such as computers of any form that are key in developing digital skills among ECD learners are missing, hence, there is a lot of theorising which affects mastery of skill.

It takes time and conscious effort to implement changes in the education system for example in the provision of infrastructure most ECD classroom where renovated storerooms made to accommodate learners but they don't meet the expectations of a standard classroom. Learning materials are too expensive, learners crowd around textbooks and they cannot be used for the next year. Morrison (2011) argues that schools must be funded adequately from the national fiscal when launching a new educational curriculum so as to ensure that it is

sustainably implemented from the grassroots level which can then contribute to the national implementation goals.

Strategies adopted to enhance the development of 21st century skills in ECD

Nevertheless, no matter how challenging it can be developing 21st century skills among ECD learners is critical. It may be necessary for schools to engage in income generating activities to supplement their funds and resource the ECD section. Continuous staff development, advocacy and parental involvement are some strategies that enhance the development of 21st century skills in ECD.

Engaging in income generating projects

It emerged during the study that the school must be capacitated to engage in income generating ventures that will assist in the acquisition of teaching and learning materials that can be used in developing the 21st century skills in ECD. To corroborate the idea, Teacher 2 said,

We need teaching and learning materials. Schools should engage in projects so that they generate income and buy necessary resources otherwise waiting for levies will not help the situation.

Teacher 4 added,

We have started a poultry project with the assistance of CAMFED and we expect to buy some learning materials. However, the funds are too little and we need more support from the school. This will help us purchase bigger items like computers.

Teacher 7 also said,

Income generating projects are the way to go. If we generate our funds we can supplement on teaching and learning materials since we are usually neglected as ECD on resource provision.

School Head 1 wrote in the questionnaire, *as schools we need to do income generating projects if we want to resource ECD because money is a problem.*

From the findings, it can be deduced that the participants agree on the need to have income generating activities to bolster school funds and purchase teaching and learning materials to develop 21st century skills in ECD. Teachers' responses show that they see themselves as agencies of social change that can spearhead income generating projects in schools and advance the call to develop 21st century skills in ECD.

Staff development

The study revealed that continuous staff development was needed on areas such as ECD pedagogies and 21st century skills. To corroborate this view, Teacher 1 said in the interview,

We seem to be at crossroads with the school heads in terms of play pedagogies used in ECD. For us to find each other, we need to have continuous staff development workshops or training.

Teacher 2 also added,

staff development on ECD curriculum for school heads and other teachers is important. This will help us to have a common understanding on the pedagogies and language to be used in ECD. Thus, we enhance the development of 21st century skills.

In support of the view School head 5 wrote in the questionnaire,

We want staff development otherwise it is difficult to monitor whether the teachers are developing the 21st century skills in ECD.

From the findings, it emerged that there is need for continuous staff development. This will narrow the gap between the understandings of ECD teachers and school heads who are supposed to supervise them on the development of 21st century skills. If staff development is done, confusion in the schools will be minimised. The finding resonates with Beers (2011) who advances that there is need for innovations and adjustment to these changes through staff development. The 21st Century skills development should move away from the theoretical, towards more technical and practical approaches (Nieveen & Plomp, 2018; Dong & Mertala, 2021; Güngör & Gölo ğlu Demir, 2022). Thus, for effective development of the 21st century skills, there is need to staff develop teachers so that they smoothly embrace the paradigm shift in their pedagogies.

Advocacy

During the study, it emerged that there was low appreciation of ECD by relevant stakeholders in terms of funding and resource allocation. To support the view, Teacher 6 said in the interview,

There is low regard for ECD and resource allocation is given as a last preference. There is need for advocacy and conscientise school heads and government on the need to capacitate ECD classes with teaching and learning materials if we are to achieve the development of 21st century skills.

Teacher 7 added,

Advocacy is the way to go. The government seem to be half hearted in

funding ECD programmes. As teachers, we have to stand up for these voiceless learners.

To corroborate the view, School head 1 wrote in the questionnaire, *ECD teachers need to speak up for their learners. Otherwise with the pressure on scarce resources they are easily side-lined.*

From the findings, it has emerged that, there is need for teachers to take the role of advocacies for their ECD learners who do not have avenues to channel their concerns. The finding resonates with Connolly, Scheepers, Coggins, Vermeire, van Tongeren, Heinemeyer, Fantke... *et al*, (2022) who suggest that an increasing shift towards the development of 21st Century skills has also gained wider momentum in Europe and call for strong advocacies around the globe.

Parental involvement

The study revealed that parents are an important stakeholder if the development of 21st century skills is to be realised. To corroborate this position, in the interview, Teacher 4 said,

Parents are an important part in ECD programmes. They need to be involved in decision making so that they will not resist playing levies. The process of coming up with levies must be highly consultative and agreed upon by parents. This way, they will honour their obligation.

Teacher 5 added,

Parents must be engaged and be involved in the school's income generating projects. The parents may provide labour, technical assistance where they can and even make donations to capitalise the project.

In the questionnaire, School head 4 concurred with the view. He wrote, *parents should be seen taking a leading role in coming up with incoming generating projects at the school.*

From the parents' contributions, it can be established that as parents meet during functions like consultation days, prize giving days, meetings and other parental involvement activities like feeding programmes or projects, the ECD centre tend to benefit. The school benefits in a number of ways such as acquiring knowledge of good project management. Bodrova & Leong (2015) state that ECD centres, need to be empowered if they are to make meaningful contribution to the development of the 21st century skills in learners. Barnett & Frede (2010) revealed that to involve parents is to create opportunities to use the skills of all parents bearing in mind that even parents from lower educational levels have skills which can and must be used to support

each other. Kelly (2010) postulates that parents need information to be partners in their children's education and this is beneficial to all parties.

5. Conclusion and Recommendations

5.1 Conclusion

The study came up with different conclusions on the teachers' perspectives on the development of 21st century skills in ECD. The study concluded that the majority teachers have an understanding of various 21st century skills to be developed in ECD. The skills they identified included critical thinking, communication, problem solving, numeracy, language literacy and digital literacy. However, it was also noted that some conflated the 21st century skills with subject (learning areas). Thus, there is a thin lining between the 21st century skills and some learning areas. A few had challenges identifying the 21st century skills because they misinterpreted the ECD policy especially the Statutory Instrument 106 of 2005. From this finding, it therefore can be concluded that teachers can develop 21st century skills fairly well since they show a good understanding of them.

It emerged in the study that ECD teachers meet a number of challenges in the development of 21st century skills among their learners. Chief among the challenges is lack of teaching and learning resources. The schools lack materials such as textbooks and computers. These resources are key in developing all the identified skills. It is therefore concluded in this study that without these requisite teaching and learning materials in ECD, development of 21st century skills may not be fully achieved for now.

The study also revealed that ECD as a programme in schools is generally underfunded leading to resource constraint. The ECD parents are not honouring their obligation to pay levies for reasons best known to them. However, it was also suggested that it may be due to economic challenges affecting the country because of economic sanctions. Another proffered suggestion for underfunding is that government and schools are giving priority to upper classes when it comes to resource allocation. This may be to attitudes towards ECD as the children are seen as just playing. It is therefore concluded in this study that according to the teachers' perspectives, underfunding has hindered the development of 21st century skills in ECD.

Misconceptions on the play pedagogy militate against effective development of 21st century skills in ECD. It was proffered that school heads do not support play pedagogies as they view them as a waste of time. The school heads are for formal instruction as is done in upper levels. This goes against the ECD best practices and stipulations of Statutory Instrument 106 of 2005 which states that ECD learning must be play based. It is therefore concluded that the ECD teachers are under

pressure to abandon play pedagogies and this may affect the effective development of 21st century skills in ECD.

The study also revealed that misconceptions on the use of English as a medium of instruction are rife among stakeholders. This has affected the development of 21st century skills as the learners have to overcome two obstacles which are language and concept. The school heads, some teachers and parents look down upon the mother language. This has seen some teachers abandoning traditional games and stories that develop the 21st century skills. Thus, language of instruction, it can be concluded can act as a barrier in developing 21st century skills.

5.2 Recommendations

The ECD programme plays an important part in the development of the child. To enable teaching and learning to take part, hence, teachers were also seen as vehicles for the development of the 21st century skills therefore their views are of great importance. Recommendations based on findings suggest that:

1. To curb lack of teaching and learning resources, parents need to be well educated through constant meetings, workshops and holding field day showcasing income generating projects done at the school. The proceeds from income generating projects will be used to buy the teaching and learning materials.
2. There is need to have continuous staff development sessions for both school heads and teachers on areas such as ECD pedagogies with play taking centre stage. It is also critical to develop school administrators on the ECD curriculum so that they appreciate it better.

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