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Technology mediated bilingual participatory culture framework for delivery of education for students: in disrupted or war zones

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Abstract: *This paper aims to provides a perspective and framework for the utilization of technology mediated education as a tool for providing education to individuals whose education have been disrupted by civil war and unrest as a platform for participatory culture education through bilingualism. The study utilized an inductive content analysis through transformative paradigm to elicit critical points which would constitute as components of this conceptual article. The systematic review of literature was adopted through databases such as Google Scholar and ProQuest, this led to the development of categories and subcategories which were organized and identified through the utilization of thematic methods. The utilization of participatory culture through bilingualism will promote inclusive education and promote the acceptance of various forms of learning and various languages. A technology mediated bilingual participation culture policy will help students and learners in war affected zones.*

Keywords*: Disrupted; Bilingual; Technology; Participatory culture.*

Introduction

Technology mediated education has become a global tool which has been utilized in various contexts to provide learning to students through various means and platforms such as mobile phones, laptops, and tablets (Pushpanadham et al., 2023; Robillos, 2023). The technology has made education easily accessible to students and provided platforms for them to easily receive lectures, as well as submit assignments, have consultations with lectures or teachers, and furthermore submit assignments at their own convenient times. The covid 19 pandemic made the utilization of technology mediated education crucial, as all institutions of learning and even organizations utilized technology mediation platforms to conduct their activities. One of the uniqueness of technology mediated education is providing unique learning experiences for the students through the utilization of these technologies at their convenience. Even before the covid 19 pandemic there were other issues that affected learning and education such as war or global disputes.

The current global wars are affecting the learning experience and availability of learning for students especially in displaced communities. These wars are conducted or happening in various countries worldwide, these include Africa, Europe, Asia and the Middle East. Technological based practical modules such as game design modules can be taught through a Bilingual Participatory culture framework. Digital literacies are being learnt all over the world and are being utilized for education purposes (Patil, 2022) which has also enabled and increased the number of graduates globally (Adewale, 2023). But there has been an underutilization of this technology for education in war affected zones, as well as

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underutilization for learning with respect to displaced children or students. There have been discussions that language could be a barrier, and that could lead to low enrolments. The argument is war cannot be stopped or disputes cannot be stopped but education can continue or the learning experiences can still be provided to these students or children within these affected zones. Global education partners can look at Chinese and Asian Tigers (South Korea, Taiwan, Singapore) (Adewale, 2023) and South African educators (South Africa, Namibia and Botswana) who have implemented technology for education especially the province of Kwazulu Natal which has implemented bilingual modes of learning (Adewale, 2023).

Throughout the last decade the question has been how education can be provided or how can quality education be provided to displaced or students and children in war zones. And how can it be provided safely to these groups on individuals (UNICEF, 2021).

One way is the utilization of the Chinese policy of making all school students (all levels of schools) bilingual (Adewale, 2023). This is the utilization of the mother tongue for delivery and receipt of instruction has been commended as a positive one based on China policy. This policy speaks to our novel approach in this paper, where a platform can be created that will be bilingual and would also serve the needs of displaced kids or students, thereby ensuring they are not forced to learn new content in a different language but can keep up with their current language and can also be willing provided they decide to learn in other languages through technology.

There have been discussions that displaced students do not easily learn in other languages (Adewale, 2018;2022). Most online courses of lectures are delivered in the popular languages namely French, English and sometimes Portuguese, which is not the primary language of the students or learners, thereby forcing the learners to go and learn a new language. The learning of a new language is not an issue, but for displaced students who are stressed about being displaced this is a issues, as they could feel it as a loss of their native language or they could feel that it could be seen as a second displacement through a terminology called language displacement.

Language is a critical aspect of every individual as it reflects or brings out cultural traits, and also provides a sense of belonging for the individual, and it is passed to upcoming generation (Ademowo, 2012). Language can be seen as a form of relief for displaced individuals, where the sense of others speaking their local language or dialet provides a sense of relief to the individuals. Maseko et al., (2016) has indicated that students do well in their home language but fail in other modules. This was seen in the southern African landscape, excluding the province of KwaZulu-Natal where bilingualism has been adopted (Adewale, 2023).

Other African countries such as Botswana are also preparing to transform their countries to utilizing indigenous language policy while studies such as Chebanne et al., (2021) has shown that the utilization of indigenous language is critical for education and human rights.

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This also speaks to the framework we are proposing how can bilingualism be provided to displaced students so that they feel welcome and feel a sense of home. For language to be utilized there is need for participation for student activities within technology-controlled environment, here students can be put into groups where they can be taught in online sessions through bilingual means, which are familiar to them, therefore they can share experiences and do assignment activities together through the utilization of Participatory Culture Theory (PCT). Adewale (2023) argues that language barriers have influenced negatively the performance of students, and the power of indigenous language as a tool for providing education has been ignored. Adewale, (2018) discussed how during a visit to a school in Nigeria discovered that the lecturer had to switch to a local dialect to provide details or further explanation to the students.

For displaced students the role of culture is critical for them, and when cultural disconnection occurs it becomes a problem, the utilization of a different language becomes a critical problem for displaced students, as it brings in language displacement and affects their wellbeing. Other studies have advocated for the utilization of mother tongue to teach employability skills (Stander et al., 2022).

There is a need for a policy framework that promotes and supports the utilization of mother tongue through participatory culture theory within a technology mediated environment to provide instruction to students or kids in displaced environments (Adewale, 2023). The absence of these forms of policies hinder the proper utilization and adoption of a technology mediated Bilingual Participatory culture theory teaching approach for students in disrupted environments.

To redress these issues requires the adoption of policies that support the use of mother tongue, as well as policies that adoption bilingualist through technology in war or displace children and student zones. This can be implemented by the WHO and UNESCO or UN organization. The world needs a new perspective to ensure that displaced kids are protected from linguistic intimidation as well as the utilization of local language.

The second issue is how does education occur within these technology-mediated environments, for that to occur we propose the utilization of the participatory culture theory (PCT) as a tool to ensuring students learning within these medium.

Alalem (2023) has proven that the utilization of participatory approach ensures the actualization of the 11 core components that will ensure that students are learning and the skills needed are imbibed within the students these include play (experimentation), performance (identity adoption), simulation (constructing dynamic models), multi-tasking, distributed cognition (interacting with tools), collective intelligence (groupwork), decision (evaluating judgement), transmedia navigation (utilizing sources across modalities), networking (finding and sharing information) and negotiation (understanding and respecting multiple perspectives).

The participatory culture framework is aimed at encouraging participation with respect to core media literacies that can promote participatory culture in the digital age (Jenkins, 2009) . These 11 core media literacies include play (experimentation), performance (identity adoption), simulation (constructing dynamic models), multi-tasking, distributed cognition

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(interacting with tools), collective intelligence (groupwork), decision (evaluating judgement), transmedia navigation (utilizing sources across modalities), networking (finding and sharing information) and negotiation (understanding and respecting multiple perspectives). All these skills require social skills which can only be achieved through networking and collaboration, that is why the students were put into groups of 5 for the project and for the duration of the course. Now these are skills required to properly address the skills required for participatory culture the instructional model of inquiry was adopted which included digital composing, sharing, discussion and a reflection process. The utilization of an inquiry-based approach was deemed the best as it promoted community engagement and participation that is active amongst the students in the classroom.

If furthermore encouraged the students to investigate and interrogate issues that were of keen interest to them and relevant to their upbringing, as well as bringing a journey of discovery (Edelson et al., 2015; Pedaste et al., 2015, Alalem, 2023). The uniqueness of the framework is based on the notion that knowledge obtained from inquiry is packed into rhetorically captivating and engaging multimodal video, which is then shared and discussed inside the classroom, this promotes the change of the class into a collaborative, inclusive space for social activism and furthermore engages the students with the 11 core media literacies required for active engagement in the technological driven age. inquiry based models begin with an preliminary phase where the students prior knowledge with respect to African narratives in video games, and that is aimed a bringing in their prior knowledge and experiences to determine and identify critical issues to them. this is then followed by an investigative phase which takes place for a week where the students go and gather information for their groups, which enables them to understand the problem and answer it, then they final phase the students synthesize the acquired information in a cohesive format.

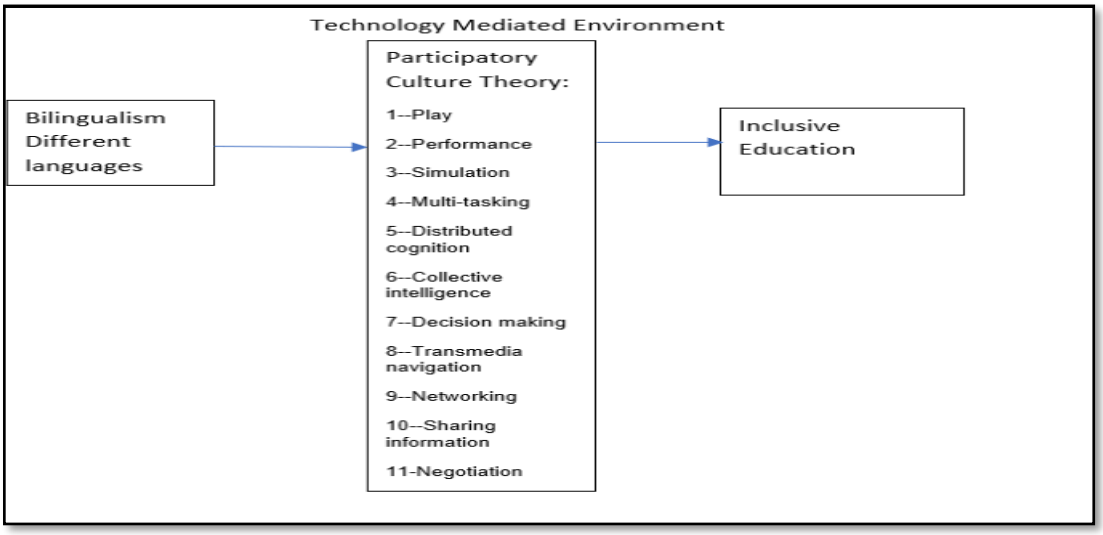

Figure 1: Technology Mediated Bilingual Participatory Culture Framework
Source: Researchers Design

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A conceptual model was created to understand the steps that need to be followed for the actualization and introduction of a technology mediated bilingual participatory culture framework. Bilingualism is a developed method of teaching where the utilization of 2 or more languages are utilized as the media of instruction (Ademowo, 2012; Adewale, 2023). The languages are either indigenous or foreign to the student.

This study (present study) intends to pragmatically propose procedures and ways of walking the talk, most times interpreters and policy makers are aware of the missing links in policy provided, but do not know how best to fix it. This leads to the conceptual paper which provides an operational approach by providing the steps needed to achieve technology mediated bilingual education through participatory culture theory for students in displaced or war affect zones.

The adoption of the participatory culture theory within a bilingual approach through technology mediated instruction can enhance equity, provide room for discussion on perspectives, foster protection of local language and promote access to inclusive education.

The adoption of bilingualism through participatory culture theory will provide the participants with the same skill sets through their various local language and as discussed will prepare them for the workforce, as well as give them the opportunity to learn more languages, but also be helpful to their communities when they return after displacement.

Method

This study utilized an inductive content analysis (Mckibben et al., 2022; Adewale, 2023) cum transformative paradigm (Adewale,2023). The conduction of descriptive and provision of new themes from dialogue rather than the utilization of codification of themes is referred to as Inductive content analysis (Mckibben et al., 2022; Adewale, 2023). The benefit of technique is the provision for the researcher to utilize techniques such as planning, execution, reporting, reproduction and critical evaluation of analyses conducted during a extensive exploration (Krippendorff, 2018).

The utilization of a transformative paradigm is aimed at identifying the deficiencies of global countries to see the education of displaced individuals as a priority to achieve suitable development goals, factors causing inequality, factors causing exclusions in learning provisions to males and females. Social justice and ways through which maximizing technology mediated education through bilingual will be explained through an educative transformative paradigm.

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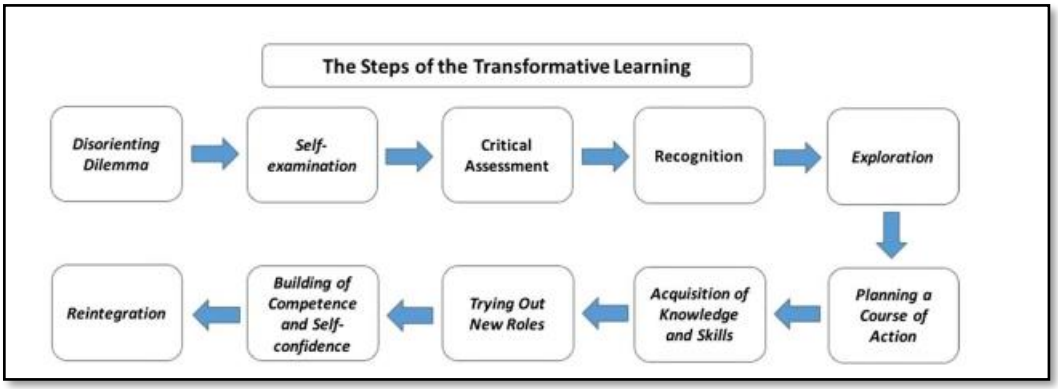

Figure 2: Transformative learning Paradigm Model (Yildirim et al.,2020)

The transformative learning paradigm starts with a Disorienting dilemma which can be attributed to an experience which does not meet the individuals perspectives such as war (Parson et al., 2020), Self-examination can be seen as an feeling of guilt, Critical Assessment provides the opportunity to evaluate a situation. Recognition is the main beginning of transformation where the individual realizes the need for social change (Randle, 2024). Exploration is the provision of new roles and opportunities to right social wrongs, planning a course of actions is the process of bringing a solution of address social wrongs (Randle, 2024; Sopapradit et al., 2024). Acquisition of knowledge skills focuses on the approach where skills and learning can be provided through a transformative approach to individuals (Sunaryo et al., 2021), Trying new roles can be seen through the utilization of the technology mediated approach to provide learning to several students (Sunaryo et al., 2021; Yildirim et al.,2020). Building self-confidence can be seen through the utilization of indigenous language which is provided through the unique bilingualism provided by the platform. Reintegration can be seen as the utilization of the approach to make the individual adapt to hir or new roles or medium (Yildirim et al., 2020).

This paper which is conceptual in nature is anchored through the lens of a transformative paradigm which leads to a Culturally relevant pedagogy (Hoollebrands et al., 2021; Adewale, 2023). The culturally relevant pedagogy focuses on being sensitive to cultural dynamics, and promotes the provision of pedagogy through the incorporation of the students' cultural experiences, understanding and values within the learning environment. And the Participatory culture framework which provides 11 tenants which are required for proper inclusive education through digital media (Alalen, 2023). The utilization of the combination of these 2 theories are critical to the provision of proper technology mediated education for displaced students, as it will be helpful to identify the language of instruction as a critical success factor for the provision of this unique form of education.

Results and Discussion

Thematic approach was utilized to determine the barriers to the utilization technology mediated learning for disrupted students and development of a conceptual model for adopting Bilingual Participatory Culture Framework for disrupted students' education.

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Barriers to the use of Bilingual technology mediated learning. The first challenge is the provision of funding for infrastructure which will be used to ensure regular or consistent internet services. The global leaders need to make sure there is proper internet for the displaced kids. The aftermath of these is that kids and students need to look for funds to be able to get regular internet services.

The second challenge is the accessibility of laptops and tablets that will be required for this form of education to be provided, some students might have laptops, but some might need government support with respect to purchasing laptops.

The third challenge is the political elite, where preference is given to foreign languages before local languages. Adewale, (2023) indicated that the elite utilize foreign languages as a weapon to keep themselves in power, where local individuals see their inability to speak foreign languages as a weakness for them to take pole positions in government. This issue has been well discussed where the pain of this is felt by all individuals who are then supressed and substituted for alien cultures (Potokri et al., 2019; Adewale, 2023).

The fourth issues are from the colonial masters, where they force the utilization of colonial languages as mediums for learning (Ademowo, 2012), a good example is the utilization of French in several war-torn African countries, where these countries have their own specific languages or local dialects which could be utilized as a medium for teaching.

Conceptual model for adopting technology mediated bilingual participatory culture framework in disrupted environments. Integrating bilingual participatory culture frameworks into learning approaches through technology mediated environments for disrupted students' education requires adequate planning and dedication. Building on the combination of the culture relevant pedagogy and the participatory culture theory (Hollebrands et al., 2021; Adewale, 2023; Alalen, 2023) the following models can be adopted for students with disrupted education.

Stage 1—Identification of language: The first process is the need to identify the language of the student or leaner, the importance of this is the knowledge of knowing the language of the learners enables the entire process to be implemented properly (Adewale, 2023; Wargadinata et al., 2020). The identification of the language enables the lecturers or tutors to investigate the tribal or cultural values that the student requires, as well as the traditions and norms that are relevant for the student.

Stage 2—Identification of tutors utilizing the language: There is a need to identify the appropriate tutors for the students, you do not want a tutor who is from the group that caused the displacement of the students, you want a tutor who can communicated in the students local language as well as teach the student or learner in his or her local language, that way the student or learner is relaxed and will to communicate to the lecturer Syahrin, (2021).

Stage 3- Identification of groups of students who can be taught utilizing the language: For the participatory culture to be effectively implemented the students have to be taught in groups, except when the student is the only one speaking a particular language, then the student will need to be taught alone. The benefit of the group teaching or group task

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activities is to ensure the tenants of the participatory culture theory are implemented to ensure the student gets the complete learning experience(Alalen, 2023).

Stage 4-curriculum adaptation to suit the language traditions: There is a need to ensure the curriculum speaks to the traditions of the students, you want to remove topics or examples that provide a setback for the students (Moorhouse et al., , 2023), you want to remove topics that are not welcomed in the student's tribe or locality. You want to adapt the learning curriculum to the student's environment, as well as the assessments.

Stage 5-Tutor capacity building and learning resources: There is a need for provision learning resources to the students in a acceptable manner and language, and the tutor needs to have the capacity to properly attend to the students or groups of students (Falloon, 2020). The utilization of the participatory culture theory encourages the utilization of various forms of media such as audio, text, video to encourage proper participation. The tutor needs to understand the unique needs of the students.

Stage 6- online community engagement: The importance of community engagement in an online format is to ensure proper participation from all students in the group, the uniqueness of this is the provision of perspectives and assurance of quality and respect for each other within the group (Jenkins, 2009).

Stage 7—discussions, collaboration, and negotiations on assignments: The role of these discussions is to portal perspectives and provide negotiations on the choice of group assignments to be done by each member of the group, furthermore there is a need to understand who takes what role in assignments, and the decision on who does what aspect of the assignment based on the local resources or skills or abilities of the individuals (Jenkins, 2009).

Stage 8—Assessment and monitoring based on the learners needs: Assessment is a key component in teaching and learning, the forms of assessment utilized is based on the needs of the students. Some learning tutors need to be aware of what approach is best for the assessment (student assessment), some students might not be able to utilize all forms of media and might be only able to utilize a particular form such as audio assessment, video assessment, writing assessment, sign language assessment (Derry et al.,2020). All forms of assessment need to be taken into consideration to ensure the student gets the best learning experience.

Stage 9—Continuous evaluation: To ensure the successful progress of the model, there is a need for constant evaluation, this evaluation will be utilized t determine if positive progress is being made with respect to the students' choice of media, and the lecturers' provision of content in the language of the students and the students preferred media. Vollenbroek et al., (2014) has indicated there is a need to investigate the achievement of predetermined goals. Adewale, (2023) indicated for this to be done, this could be done through unscheduled visit or joining the online classroom to view the lecturer or tutors' activities an engagement with the students or learners. The benefit of this for the transformative paradigm is to understand the limitations and also give room for modifications.

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Conclusion

In conclusion the method or approach to apply the utilization of technology mediated bilingual participatory culture framework to eradicate the loss of education for students in warzones or displaced environments will depend on the conditions and the local community needs. Therefore, there is a crucial need to consult with local authorities, non-governmental organizations (NGO), stakeholders before decisions can be made. In a nutshell the provision of education through the participatory culture theory through bilingualism with a technology mediated environment for student in war affected zones is likely to work if proper implementation, analysis and planning and regular improvements are utilized.

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