E-Learning Methodology: Technology and Livelihood Education Teachers' Affordances and Limitations

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Abstract:- This study aimed to explore the implementation of E-learning methodology based on the perspective of TLE teachers. This study employed a phenomenological research design which aims to determine the experiences and perceptions of the seven (7) participants. Three themes emerged from the experiences of TLE teachers in implementing the E-learning methodology. The three themes were flexibility and convenience, delayed communication and unavailability of technical support from teachers. Meanwhile, on the coping mechanism of teachers the themes generated were willing to take professional development, addressing technical problems at a different angle and utilizing more mechanisms towards efficient communication. Further, the following are the themes generated from the insights drawn from the experiences of the teachers which were realistic optimism, provision of authentic learning, and collaboration and cooperation. The results implied that school administrators design teachers' readiness program on E-learning methodology based on the empirical results of this study. Moreover, the results generated provided comprehensive data in conducting future research with similar or relevant scope. This will yield advantageous findings tailored to the organization and hierarchical context of the education sector.

Keywords:- *E-Learning Methodology, Technology and Livelihood Education, Challenges, Insights, Davao Occidental.*

I. INTRODUCTION

➤ *The Problem and its Setting*

In today's worldwide society, incorporating new technology into training programs effectively has become essential. When employed as instructional tools, information and communication technologies (ICT) can yield useful learning materials that give students the professional and personal skills they need to advance. As such, ICT tools not only raise the importance of education but also broaden its scope by creating new training areas for educational community members (Peñarrubia, Segura, Lizalde & Bustamante, 2021).

Personal computers were first intimately linked to e-learning, but this has since changed. Systems that enable learning networks, interaction, communication, and platform access from mobile devices now assist e-learning. To increase its reach and efficacy, it has been incorporated into online learning activities as well as instructional strategies and programs (Peñarrubia, Segura, Lizalde & Bustamante, 2021). Nowadays, e-learning is a teaching and learning approach that uses electronic media to increase access to high-quality education and represents all or a portion of an educational paradigm. It also includes important elements like the physical distance between instructors and students, independent learning, digital tool engagement, and institutional assistance.

The COVID-19 epidemic hastened the global adoption of e-learning and ICT in educational systems. In order to preserve their curricula in the face of lockdowns, educational administrations have to swiftly transition to e-learning. While this method of instruction has benefits like flexible scheduling, it also has drawbacks such gaps in digital literacy and problems with instructor and student access. In addition to the loss of face-to-face social connections, these difficulties have occasionally led to stress levels that are higher than those previously brought on by the pandemic (Peñarrubia, Segura, Lizalde & Bustamante, 2021).

The World Bank actively works with education ministries across several nations to promote educational technology that provide remote learning during COVID-19-related school closures in response to these changes in education. This support demonstrates how e-learning is widely acknowledged as a successful educational option (Worldbank, 2021). Nonetheless, in certain places, like the US, mistrust of online education endures. Non-traditional educational modalities have been regarded with suspicion since the late eighteenth century. Misconceptions regarding the rigor and engagement of e-learning continue to exist despite advancements in online training (Larreamendy-Joerns & Leinhardt, 2006; Noble, 2001; Ohler, 2005).

Although obstacles like the digital divide restrict its accessibility, COVID-19 in Japan demonstrated the importance of online learning for the future. Due to a lack of ICT infrastructure, particularly in rural regions, only a small percentage of Japanese schools were able to offer online

courses during school closures. Significant work is still required to bridge the gaps in ICT integration across socioeconomic and geographic boundaries, even though Prime Minister Yoshihide Suga's digitization strategy shows promise (Schwartz, 2020). In an effort to increase access to basic education, the Philippine Department of Education (DepEd) has also promoted blended learning, especially in rural regions. However, there are obstacles to e-learning deployment, particularly when it comes to reaching students from Last-Mile Schools (DepEd, 2021).

Although e-learning is becoming more popular in secondary education, little is known about how teachers see this approach. In e-learning environments, the majority of research has concentrated on student interactions and academic performance (Herring & Clevenger-Schmertzing, 2007; Journell, 2008; Larson, 2003). In order to close this gap, the current study is to investigate the use of e-learning from the viewpoint of TLE teachers, looking at both its advantages and disadvantages. This study aims to provide insightful suggestions that could aid in teachers' professional development and improve the efficacy of e-learning by comprehending their experiences and difficulties.

➢ *Research Questions*

The primary research questions of this study are the following:

- What are the experiences of Technology and Livelihood Education (TLE) Teachers in implementing the E-learning methodology?
- How do Technology and Livelihood Education (TLE) teachers cope with the limitations in implementing the E-learning methodology?
- What are educational management insights drawn from the study?

This study is significant as it offers an additional study that may indicate appropriate means of implementing E-learning methodology in TLE subjects.

➢ *Theoretical Lens*

The current study centers on Constructive Learning Theory and Computer-Supported Collaborative Learning (CSCL), emphasizing the significance of social interaction and technology in the learning process. According to CSCL, the utilization of computers enables collaborative learning by establishing connections between learners and providing guided instruction through technology (Zheng, 2016). Web 2.0 technologies facilitate collaborative learning and knowledge reconstruction through creative interactions, allowing teachers to monitor and interact with numerous groups, thereby enabling dynamic engagement (Leeuwen, Janssen, Erkens & Brekelmans, 2015). Students are more engaged and develop skills that are crucial for 21st-century learning, including critical thinking, communication, and problem-solving, in these environments (Jonassen & Kwon, 2001).

Constructive Learning Theory by Piaget (1960) and Vygotsky's Social Constructivism, which complement CSCL, emphasize learner-centered, interactive knowledge-building in which new information is connected to existing knowledge (Henson, 2003). Constructivism posits that the process of learning entails the development of meaning through correlation, comparison, and interpretation, which in turn promotes retention and problem-solving (Duffy & Jonassen, 1991). In social constructivism, the role of peers and teachers is essential, as knowledge is socially constructed through dialogue and shared experiences, establishing a "zone of proximal development" (Vygotsky, 1978). Therefore, interaction and cultural context are essential. Thus, both theories emphasize the importance of active participation and socio-cultural collaboration, which underscores the fact that learning is not merely an individual pursuit but also a technologically and socially mediated process (Fer & Cırık, 2007).
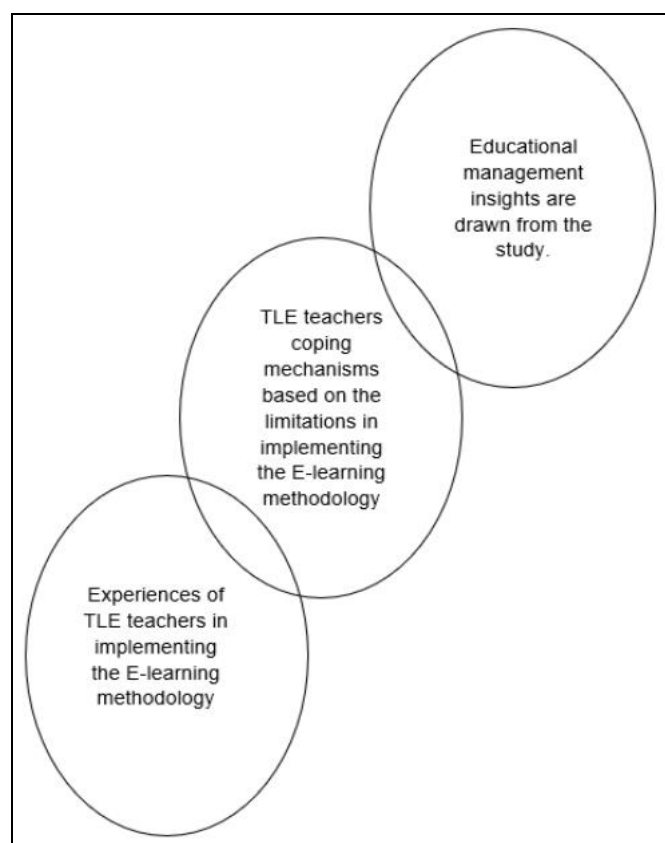

Fig 1 Conceptual Framework of the Study

II. METHOD

➢ *Design and Procedure*

In order to investigate and evaluate the experiences and perspectives of teachers within the school environment, this investigation will implement a qualitative, phenomenological research design. According to Creswell (2012), phenomenology attempts to capture the essence of shared lived experiences by employing interviews, documents, and observations to collect in-depth data. The data is analyzed for themes through repeated review, resulting in the formation of clusters of meaning that disclose universal insights about the

phenomenon. Phenomenology's philosophical foundations prioritize the extraction of unfiltered, pure data, frequently utilizing "bracketing" to reduce researcher bias by recording personal reflections (Maxwell, 2013).

Interviews will be an essential component, as they allow researchers to gain a deeper comprehension of the experiences of participants and to uncover rich insights through open-ended questions (Corbetta, 2003; Creswell, 2012). Triangulation is the process by which meaningful statements are extracted and clustered following data collection. This process results in a comprehensive description of the phenomenon's structural and experiential aspects. Phenomenological research provides a potent method for interpreting subjective experiences and uncovering motivations and assumptions within an educational context, despite the necessity of bracketing personal observations.

➢ *Research Participants*
Seven Malita District, Davao Occidental teachers participated in this study. Participants were selected using these criteria: (1) must work for at least five years, regardless of age, sex, marital status, or ethnicity; and (2) must use E-learning in their classes.

The researcher also used purposive sampling since participants were chosen based on the study's goals (Creswell, 2014). Also called judging, selective, or subjective sampling. To ensure authenticity, volunteers were carefully chosen (Marshall, 1996).

➢ *Research Instruments*
The purpose of the research interview is to explore the views, experiences, beliefs and/or motivations of individuals on specific matters. Qualitative methods, such as interviews, are believed to provide a deeper understanding of social phenomena than would be obtained from purely quantitative methods, such as interview questionnaires (Stewart et al., 2008).

➢ *Data Analysis*
Creswell's (2012) model will be employed to interpret the data acquired in this study through thematic analysis, which entails the identification of themes by grouping similar codes into significant ideas. Initially, the researcher will become acquainted with the data by immersing herself in it, perusing it repeatedly, and documenting her initial observations. A detailed, analytic approach is guaranteed by the creation of concise labels that encapsulate the semantic and conceptual essence of the data, which is a critical component of coding. The researcher will code each data item and subsequently organize the codes into pertinent themes, thereby establishing a coherent pattern that is consistent with the research question.

The researcher will proceed to evaluate the narrative strength and interrelationships of themes by reviewing and refining them in the subsequent stage. A descriptive presentation will be provided by thematic content analysis, which will define the "essence" of each theme to ensure clarity (Andersen, 2013). Environmental Triangulation will be implemented to improve the validity and depth of the results by verifying their consistency across various settings, timeframes, and environmental factors (David, 2015; Naeem & Saira, 2019). Lastly, the write-up will integrate the analytic narrative with data extracts to create a cohesive, compelling narrative that is grounded in the existing literature.

➢ *Analytical Framework*
This research employed a flexible framework analysis, allowing data collection and analysis to either occur simultaneously or sequentially. In the analysis stage, data were systematically organized around key issues and themes using a five-step process: familiarization, identifying a thematic framework, indexing, charting, and mapping, and interpretation (Ritchie & Spencer, 1994). Familiarization involved an in-depth review of transcripts, field notes, and recordings to grasp core ideas and recurrent themes. Due to the volume of data in qualitative research, only a selection was analyzed, influenced by methods like interviews, documents, and observations.

Thematic framework identification followed, where themes were drawn directly from the data and noted during familiarization. Indexing involved categorizing data sections according to these themes, supported by qualitative analysis tools for clarity. Finally, mapping and interpretation offered a structured view of key characteristics through charts, helping define concepts, create typologies, and map phenomena (Ritchie & Spencer, 1994). This last phase ensured that strategies and recommendations were grounded in participants' actual attitudes, beliefs, and values, enhancing the authenticity of the research conclusions.
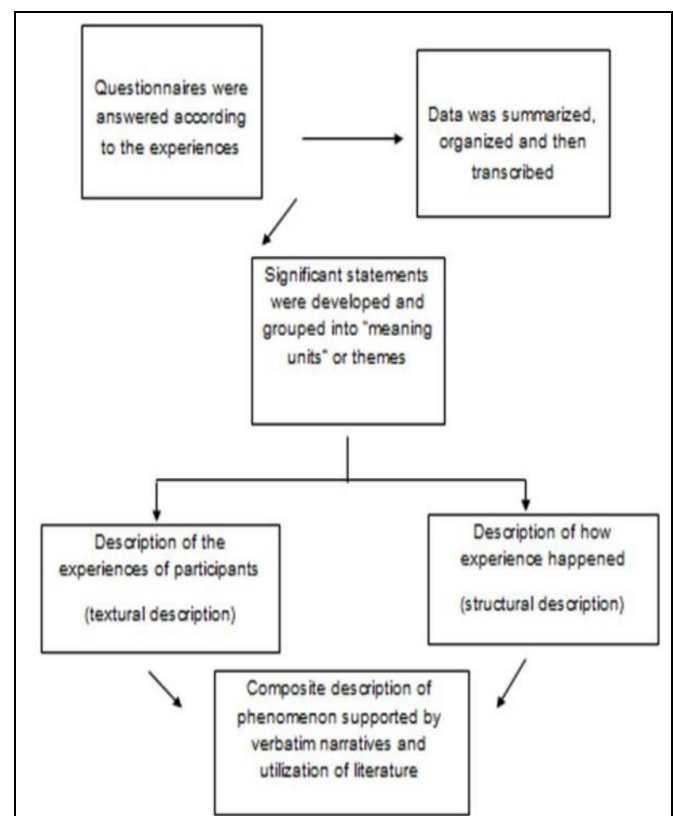

Fig 2 Analytical Framework of the Study

III. RESULTS AND DISCUSSIONS

➢ *Experiences of Technology and Livelihood Education (TLE) Teachers in Implementing the E-learning Methodology*

This pandemic has resulted in a significant surge forward in the educational system. In order to fulfill the expectations of the distance learning modality, each teacher encountered a unique set of modifications. The teachers' resilience and commitment to delivering the highest quality education to students were put to the test by this significant change.

These are the common experiences that teachers have as they navigate these transitions. The themes were produced by condensing the prevalent responses into a single entity. These themes were meticulously analyzed and developed in accordance with the accounts and reflections of the informants.

• *Flexibility and Convenience.*

The participants have widely acknowledged the flexibility of the E-learning methodology as a significant advantage. The flexible class participation time was the most significant factor that contributed to the positive experience of the participants. Learners can plan ahead and prepare themselves for online class interaction by scheduling the E-learning methodology, which involves a digital classroom. A number of the participants expressed the following:

"E-learning can be very flexible to both teachers and learners because students can be able to access learning materials on the availability of their resources and or when they are ready to access such." (P2)

"Dealing with E-learning can be very flexible because we can schedule online class on days that both learners and teachers are available, as teachers we should consider also the availability of our students because they also have many modules and performance tasks to accomplish." (P5)

"This E-learning is indeed very flexible because students can interact with each other anytime especially when they have group activity to make." (P7)

The convenience that students experienced from not being obligated to attend school and to schedule their work and studies at their own pace was emphasized by all participants in this study. This study identified one favorable experience: flexibility with regard to time. Students may access digital resources and electronic exams at any time when they are accessible.

"It allows students to access learning resources and view it at their own pace." (P1)

"One benefit of E-learning is that I don't have to worry about trying to find time to meet as a whole class since it can be anytime virtually." (P5)

"It gives the students' time to sit back and reflect on to their initial reactions to the discussion topics." (P6)

E-learning is a student-centered approach that promotes active learning, enhances peer-assisted strategies, and grants learners control over their learning pace, all of which are in alignment with enhanced pedagogy (Graham, 2005). Bourne et al. (2005) describe that e-learning employs online tools to facilitate self-paced learning, allowing students to participate in interactive exercises. High accessibility and flexibility are essential components of this approach, as students prioritize both social interaction and simple access to course materials (Utts et al., 2003). In blended environments, e-learning fosters deeper learning by encouraging students to assume greater responsibility for their learning through active and reflective practices (Subic & Maconachie, 2004).

• *Delayed Communication.*

Based on the figure above, three themes emerge from the responses of the participants which are flexibility and convenience, delayed communication and unavailability of technical support from teachers. These themes imply that the experiences of teachers in E-learning have both good outcomes and challenging features that may affect learning performance of the students.
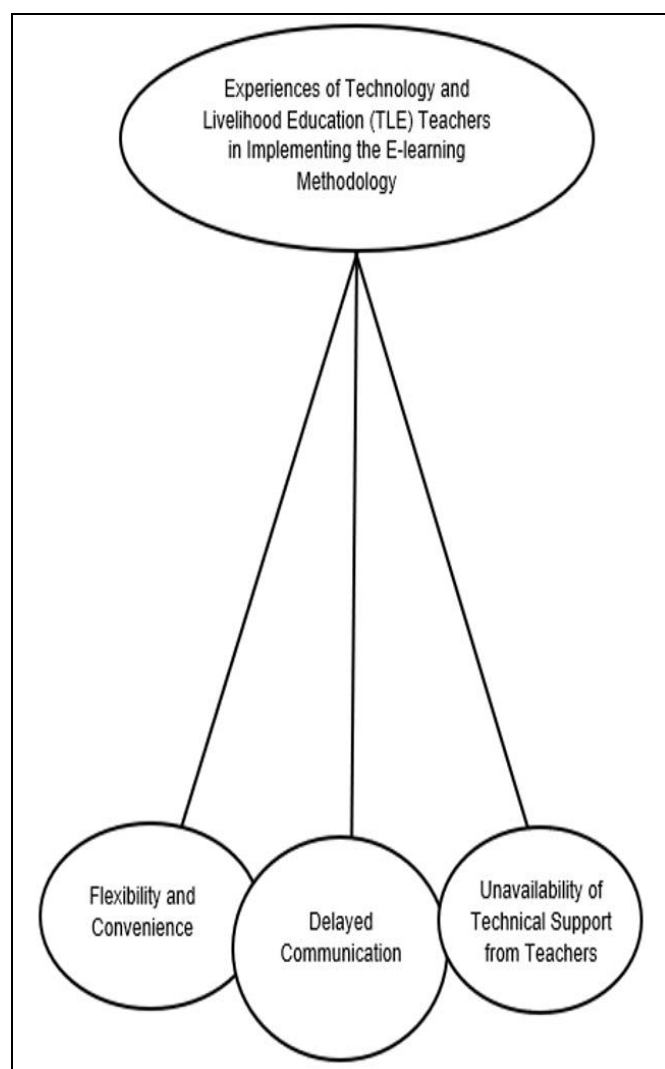

Fig 3 Experiences of Technology and Livelihood Education (TLE) Teachers in Implementing the E-learning Methodology.

➢ *TLE Teachers Coping Mechanisms Based on the Limitations in Implementing the E-Learning Methodology*

Within an organization, challenges can function as both opportunities and obstacles. Challenges are frequently perceived as impediments to the effective implementation of E-learning methodologies in the classrooms of TLE teachers. However, the adaptation to novel teaching methods is influenced by the fact that these challenges are a common occurrence in everyone's life.

Individuals are compelled to cultivate a resilient perspective in order to address the daily demands of education, as these challenges are inevitable (Canonizado, 2020). Teachers must adopt a positive attitude in order to effectively address and resolve the challenges that arise within their educational environment.

The central themes below were identified through the consolidation and analysis of the coping mechanisms that participants shared. The participants' reflections were used to distill these themes, which offer a glimpse into the common strategies they use to confront obstacles in their work.

- *Willing to Take Professional Development.*
  E-learning methodology adheres to the use of multi-media technology in classroom teaching. The participants are continuously familiarizing themselves with different online learning platforms in order to cope with the challenge alongside it. To equip themselves with the new normal education and to the latest trends and updates in the educational field, the participants attend continuous professional development such as webinar sessions, LAC sessions, graduate studies and self-learning. They expressed:

"I have to learn how to use computers and how to integrate it in class. I am not good with computers but I am trying to learn. Learning must continue especially now therefore teachers must attend available training and seminars for our own good and for the students as well." (P1)

"We should attend professional development for us teachers to keep updated." (P3)

"Taking seminars and workshop has long been introduced, but for me, this pandemic has strengthened the need of it." (P4)

"We should learn so we can help our students learn as well especially in guiding them how to manipulate it and troubleshoot when problems arise." (P7)

Professional development broadens the scope of instructors' knowledge and cultivates practical skills that are beneficial in the development of instructional plans. Teacher growth and professional development are fostered by continuous learning, which equips them with the necessary skills to adapt to changes in the educational environment. The quality of education is significantly enhanced by the contributions of teachers; therefore, it is imperative that teachers' capacity building be prioritized (Aslam, 2014).

"Attending trainings and seminars has a lot of benefit, although we face several challenges along the way we cannot deny that learning is essential to move towards change." (P5)

"I believe that we must be ready in all times, changes will happen anytime thus we have to immerse ourselves in professional development because we cannot offer what we don't have." (P6)

Over the past few decades, the teaching profession has undergone a significant transformation as a result of the rapid advancements in technology and the evolution of educational methodologies. The significance of continuous learning for educators is underscored by the fact that skills and techniques can become obsolete within five to ten years. Teachers are able to incorporate new strategies and methods that promote student development as a result of this continuous learning (EDU, 2018). Fostering a perspective that prioritizes continuous improvement, lifelong learning is therefore essential for societal advancement (Fischer, 2018).

Additionally, educators who prioritize continuous learning are better prepared to surmount obstacles, as they regard errors as valuable learning opportunities rather than failures. Teachers can more easily adjust to changes in student requirements and teaching practices by developing a habit of self-education. This mentality enables them to enhance their current abilities, develop new ones, and effectively address unforeseen student inquiries, thereby facilitating the transition to new situations when they occur (Jun, 2018).

- *Addressing Technical Problems at a Different Angle.*
  The educational landscape is currently being significantly influenced by technology. In response to the current pandemic, numerous educators are advocating for the integration of technology into the educational process. This includes the provision of hardware, such as tablets and computers, the enhancement of internet connectivity, and the implementation of initiatives that aim to enhance the computer literacy of educators. Teachers generally recognize the advantages of educational technologies; however, technical complications are inevitable in an online environment, according to experts. The participants expressed that they attempted to resolve the technical issues at the teacher's end in a manner that was familiar to them, as the majority of them are not technical experts. They have a propensity to identify alternatives in any given circumstance. In the manner in which they articulated:

"While having a class, my computer suddenly shut down and I needed to restart the device. To cope up with the problem, I sent SMS to my students informing them about the problem. It is best to back up computer with a phone device for continued communication." (P2)

"When I have difficulty in my E-learning class, like internet glitches and laptop problems, I informed my learners through messenger and provide them with recorded video of my learning instructions instead." (P3)

"When dealing with E-learning a contingency plan is a must." (P5)

Some of the participants shared that they asked the help from ICT experts to problems they don't know how to address. Seeking the help of others is also one of their alternatives in dealing with technical problems, for them who are better able to solve them than those experts in that field.

"There was a time when some of my students are having problem accessing my electronic assessment, may be because I clicked something in its settings, I asked the help of my colleagues to address the issue." (P6)

On the other hand, when technical problems arise on the students' side, like poor internet connection on the part of the learners or laptop that doesn't support heavy applications such as google meet; TLE teachers' plan strategies in order to deliver the required learning competencies for the day. They voiced:

"During google meet, I always remind the students to stay in touch with me and inform me what's happening in their line. I am flexible in that kind of situation by recording class sessions as a backup for those students who can't attend." (P1)

"When they are having difficulties in accessing E-assessment websites like quizziz.com, I asked them to screenshot or take a photo on it it so that I can visually know how to help them access it. I can also draw on the photo for easier instruction." (P3)

The significance of recognizing that both instructors and students are not alone in encountering technical difficulties is underscored by Coder (2019), the director of academic advising and student disability services at Pennsylvania State University. Additionally, Coder emphasizes the necessity of patience in dealing with these obstacles. Students' learning engagement is adversely affected by a substantial lack of computer literacy, despite their general tech-savvy (Ashford, A. 2015).

In an E-learning environment, the efficacy of technology in the classroom is predicated on the management style of the teachers (Allan, 2010). Teachers must comprehend the technological assistance their students require prior to initiating an E-learning course, as the digital infrastructure is currently overwhelmed as a result of the proliferation of online activities, such as streaming, video conferencing, and learning (Bauer, K. et al. 2018). In addition, it is imperative that educators acquire fundamental troubleshooting abilities and impart them to their students (Frean, 2018). Bradford et al. (2018) have found that providing students with instructions on how to access files during class can reduce anxiety and increase their level of engagement. In conclusion, it is imperative that educators educate students on the significance of internet speeds in order to facilitate successful video conversations. They should be reminded that excessive streaming or gaming can have a detrimental effect on the quality of their connection (Bradford et al., 2018).

- *Utilizing More Mechanisms towards Efficient Communication.*

To address the limitations of delayed communication on some students, especially in giving instructions and providing feedback in an E-learning classroom, Teachers opted to maximize resources by utilizing phone calls, SMS and even handwritten notes. Since most of the students have internet problems and gadgets limitations, communicating with them is a challenge but is possible to address. They shared:

"When I have difficulty in communicating with students who have no readily available internet connection I call them to deliver instructions and feedback. I really make sure to talk to them because they might have concerns that needed immediate answers." (P3)

"We need to build in more mechanisms for pupils to communicate with us." (P4)

In addition, teacher-participants who communicate learning instructions through PowerPoint and pdf format, bear in mind to convert their resources to compact formats for ease of download.

"When you're uploading files to share with students, be sure to use file types that minimize size. For example, you can convert your PowerPoints to a PDF format and even optimize a PDF to reduce the time it'll take students to download. File size is especially important when it comes to video. If you record lectures, consider reducing the quality of your video or using a free automatic transcription site to provide a transcript for students to read. This is important because students have limited internet thus, it you will provide ease on their part." (P2)

It is imperative to evaluate the requirements of parents and pupils in relation to COVID-19. This entails obtaining information regarding their preferable communication channels, the frequency of communication, and the support they believe is essential for safety and success. These discussions can provide valuable insights that can be used to customize communication and engagement tools to ensure that they are pertinent, appropriate, and in accordance with the expectations of parents and caregivers (UNICEF, 2020).

It is essential to maintain consistent and systematic communication with parents and pupils, not only as a response to necessity but also as a proactive measure. The establishment of transparent and consistent communication mechanisms fosters parental involvement and support for their children's academic pursuits. Although communication strategies are not limited to the COVID-19 context, the pandemic can be used as a starting point to improve these interactions. Additionally, schools must guarantee that all parents and students, including the most vulnerable, have access to critical information by ensuring that communication is developmentally appropriate and accessible to all, including those with disabilities (UNICEF, 2020).
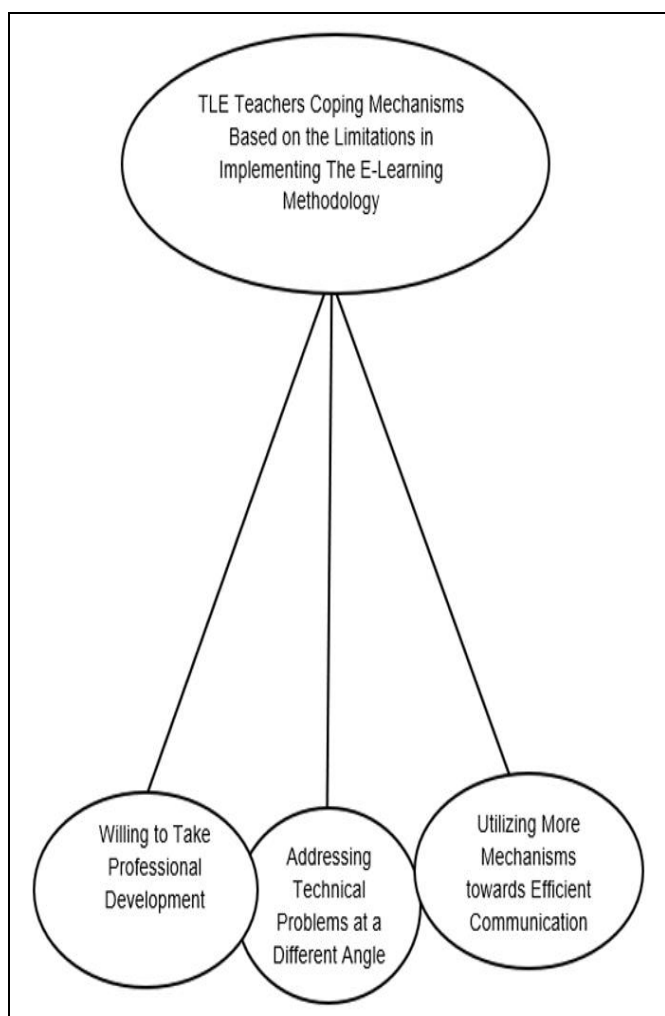
Fig 4 TLE Teachers Coping Mechanisms Based on the Limitations in Implementing The E-Learning Methodology.

Three themes are evident in the responses of the participants, which include a willingness to pursue professional development, a distinct approach to technical issues, and the implementation of additional mechanisms to facilitate communication. This is supported by the figure above. These themes suggest that TLE instructors are capable of adapting to the requirements of E-learning methodology. It also indicates that alternative strategies can be employed to meet the requirements of students and generate learning opportunities that are conducive to effective teaching and learning in distance education.

➤ *Educational Management Insights are Drawn from the Study*
Developing the capacity for individuals to learn effectively from their experiences is an important part of building the knowledge and skills in organizations to do good adaptive teaching and learning process in the new normal learning environment.

The participants shared their educational management insights, and it was narrowed down into one to generate the themes. These themes were carefully analyzed and formulated based on what came from informants' accounts and reflections. The subthemes are shown below:

- *Realistic Optimism.*
Optimism is more than positive thinking; it's a way to combat learned helplessness that is created when one approaches a challenge with a defeated mindset. Realistic optimism should be the educator's goal. Realistic optimists recognize reality constraints and aspire to probable outcomes. They see the path to success as full of twists and turns. Consequently, they are not risk averse. Teaching students about optimism can help them see unpleasant events as learning opportunities.

Positive outlook contributes to addressing the challenges of the new normal education according to the participants. Encouraging oneself and of course the colleagues to have a positive outlook, self-confidence gained from encouragement and motivation, healthy lifestyle, and stress reduction allows them to continue performing their duties and responsibilities despite the challenges of these trying times, without compromising other important tasks of teachers. As some of them stated:

"E-learning is difficult for everybody, the adjustment it entails is not easy, but if we all have positivism then nothing is impossible." (P1)

"We have to be resilient and positive in E-learning environment because there will always be challenges when dealing with online environment most especially that our country is not yet ready to provide us with strong service." (P2)

When teachers create a positive environment and well-being among themselves, it could foster improved academic performance and promote social and emotional progress among students even outside the classroom (Loveless, 2020).

"If we uplift this kind of optimism we can think of strategies and alternative ways to solve problems in E-learning." (P5)

"When teachers fosters positivism we can always find solution to a problem, as they say when there is a will there is a way." (P7)

- *Provision of Authentic Learning.*
The participants were of the opinion that instructors should not disregard the significance of active engagement and social interactions among the individuals they engage virtually, despite the fact that E-learning methodology is flexible, accessible, and convenient during this pandemic. Constructivists maintain that learning occurs when students engage in authentic learning activities, such as sharing real-life experiences and engaging in dialogue.

"I believe that E-learning has its advantage but since the students are geographically away from us they might develop a feeling of isolation, so teachers should provide them with opportunities to use technology to show their authentic experiences. Like, in TLE, let them experience how to do it not, just sit and watch how to. Let them also share these authentic experiences to class." (P2)

When students experienced isolation along with technical problems they have at home they will feel unmotivated to perform academically and then will lead to an undesirable outcome for the institutions offering these E-learning methodologies.

"If we don't make use the most of E-learning it might result to unfavorable learning outcomes. Teachers should provide realism to what they teach." (P3)

"I have read in one of the article in my post graduate studies that E-learning can be best used if we relate it to the world so that students will not lose their sense of identity in the process." (P6)

Students have the opportunity to participate in high-fidelity simulations or other forms of virtual reality experiences, play instructional games, and conduct exercises on the web. Students can develop resilient skills related to solving complex, ill-structured problems and construct their own meaning by engaging in collaborative experiences and transforming information into various forms, such as audio and video. In order to accomplish a challenging authentic endeavor, students must engage in interactions, such as sharing their thoughts, relating their ideas to past experiences, collaborating with their peers, actively constructing their own meaning, and incorporating the diverse perspectives of others (Woo, 2007).

- *Collaborate and Cooperate.*
  The interests, origins, and strengths of each teacher can be utilized to enhance a project when they collaborate. Teachers have the ability to assign responsibilities based on the demeanor and expertise of each team member when they collaborate. Teachers are able to confidently contribute their most dynamic skills toward school development, and this type of teamwork fosters a greater sense of trust and accountability. The participants indicated that collaboration facilitates the exchange of best practices. When assembling learning resources and ICT tools, they solicit advice and assistance from one another. In the holistic well-being and development of educators, collaboration offers a robust support system. It enables them to cultivate competence and develop confidence in the new normal. Teachers regard the assistance they receive from their colleagues as a beneficial method of maintaining communication. Additionally, they will provide quality service by providing valuable instruction when they feel valued and respected (Linton, 2017).

"If I think that the task is very difficult for me, I ask the assistance of those who are skilled at it. I approach them in a friendly manner and kindly ask help." (P2).

"I often ask for help from the young teachers about technology manipulation and integration in class because they are very equipped with it. I am learning from them, although it takes time but at least I can learn." (P6)

The participants contended that collaboration is distinct from cooperation. They perceived that collaboration involves collaborating with another individual to accomplish a single,

shared objective, whereas cooperation involves assisting another individual by fulfilling their requests. They stated that they must reciprocate when they seek the help of others, particularly when addressing technical issues. Of those who participated, one expressed:

"I am a master teacher but I have limited skill in terms of ICT. I do collaborate to others to learn how to do things and I also cooperate by helping them at what I do best- which is lesson planning." (P3)

Learning becomes more accessible and effective for students when instructors collaborate to exchange information, resources, ideas, and expertise. They are intentionally fostering healthy interdependence by establishing interpersonal relationships and ensuring that instructors are at ease providing and receiving assistance without compromising their accountability (Davis, 2019).

Here are some of the advantages that can be anticipated when teachers engage in co-planning and co-teaching in accordance with a shared vision: heightened academic endeavor, a more comprehensive comprehension of student data, more innovative lesson strategies, and reduced teacher isolation. The critical factor is to recognize, comprehend, and work assiduously to surmount the challenges and impediments that impede the development of high-quality teacher collaboration and cooperation (Davis, 2019).
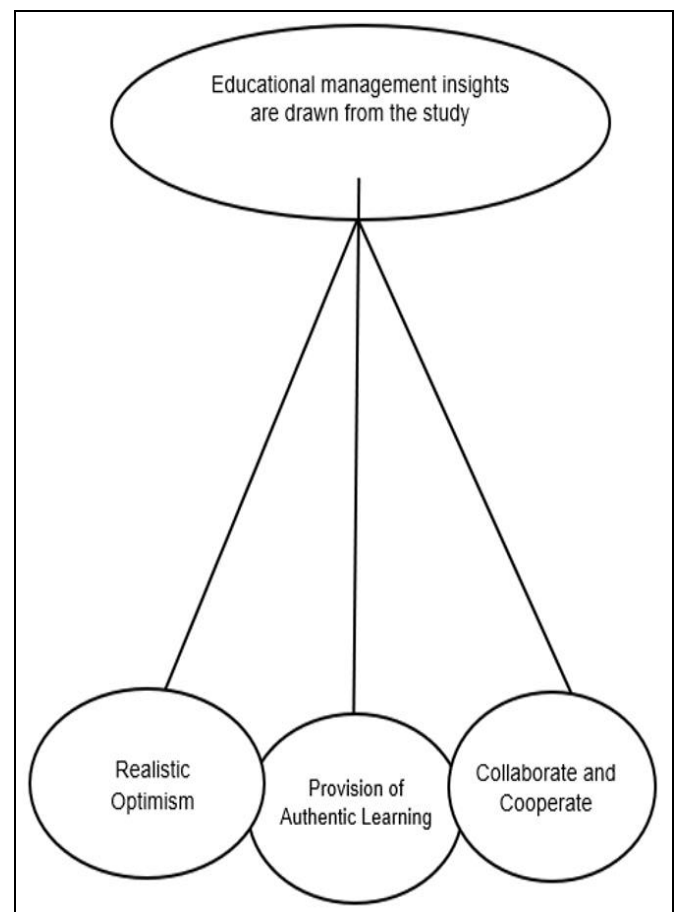

Fig 5 Educational Management Insights are
Drawn from the study

The responses of the participants reveal three themes: realistic optimism, provision of authentic learning, and collaboration and cooperation, as illustrated in the figure above. Based on their personal experiences and reflections, these themes suggest that TLE instructors optimize the use of E-learning in their classrooms. In an E-learning classroom, the expectations are met through the co-learning and co-constructing of students and teachers, as it facilitates meaningful social interaction that contributes to student development and learning.

IV. IMPLICATIONS AND FUTURE DIRECTIONS

➢ Implications

This study illuminates the challenges faced by educators as they adjust to the new normal environment. The data compiled has substantial implications for a variety of stakeholders in the field of education, such as administrators, teachers, and policymakers. The practical implications of this investigation are as follows:

Policymakers should collaborate more closely with school leaders and teacher educators to reform policies related to E-learning methodologies, ensuring that they are pertinent and offer sufficient support for both students and teachers. Additionally, they should promote the provision of dependable internet access to enhance the delivery of instruction.

It is the responsibility of school administrators to address the requirements of teachers and provide the requisite technical assistance and interventions. The school should establish a teacher preparedness program that emphasizes E-learning methodology in accordance with the empirical findings of this study.

Teachers should concentrate on the acquisition and development of the necessary skills and strategies to implement E-learning practices that are both effective and efficient. By doing so, they can deliver high-quality instruction that is pertinent to modern society and more effectively prepare students for the future.

➢ Future Directions

There are still several areas in this discipline that require further investigation. This study has the potential to further develop the contexts that are similar and distinct. It is advisable to consider the perspectives of educators in various educational levels, including junior, senior high, tertiary, and vocational, as well as in other subject areas. An additional recommendation is to implement a case study that emphasizes a particular instance of educators who implement E-learning methodologies. This will produce beneficial discoveries and implications that are specifically designed for the educational sector's hierarchical structure and organization.

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