

Adversity encountered by TLE teachers during blended learning using explicit instruction approach: Basis for teachers' capacity training

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Abstract

Technology and Livelihood Education is a skill-based subject in which the teacher must expose the students to real-world, hands-on, and realistic teaching learning experiences. However, teachers encountered challenges in teaching TLE during blended learning. The study investigated the challenges encountered by the TLE teachers during blended learning in using explicit instruction approach. This study utilized quantitative research design to determine the challenges encountered by grade six TLE teachers during blended learning in selected schools in District of Laguna. This study was carried out by fifty (50) grade six TLE teachers, and sampling procedure, survey instruments and statistical computations were applied. The result of the study showed a weak correlation between the academic performance of the students in the first grading period and the second grading period after grade six T. L.E. teachers encountered challenges during blended learning using explicit instruction approach. This result indicates that teachers are effective despite the constraints posed by blended learning, and that there may be additional factors influencing academic performance of the students than the challenges stated.

Keywords: Technology and Livelihood Education (TLE); Explicit Instruction Approach; Student's Academic Performance

1. Introduction

Technology and livelihood education is a skill-based subject in which the teacher must expose the students to real-world, hands-on, and realistic teaching learning experiences. However, teachers encountered challenges in teaching TLE during blended learning.

A recent analysis examines the challenges that educators and other service providers encountered in upholding these standards as well as the solutions they are creating to make sure students receive a quality education even when they are not in a classroom (Mabanglo, 2021). Institutions, managers, teachers, students, and even parents were unprepared and had to take part in distance learning. Schools have been forced into a learning flow that is challenging and constrained by the switch from direct instruction to more indirect methods.

The researchers of this study believe that the Covid-19 health crisis has made it more difficult to provide quality education in terms of access to school facilities and tools. TLE teachers and students who use blended learning have challenges with planning, presenting, and grading assignments as well as challenges with immediate feedback and conducting assessments.

The explicit instruction approach is a strategy for assisting students. Explicit or direct instruction is a teacher-led teaching strategy. The teacher instructs the students in a clear, step-by-step manner. This method

of instruction is most effective for the acquisition of abilities like TLE. The purpose of this study is to identify challenges with explicit instruction in the TLE subject and offer solutions. To better equip teachers to teach TLE, this study will examine the challenges TLE teachers faced on blended learning at selected schools in District of Laguna.

1.1. Background of the Study

Education is essential to everyone despite the issues, developments, and advances in the educational system. One of those issues is the COVID-19 pandemic and how it posed problems for the Philippine educational system at all educational levels in the public and private sectors. The pedagogy used by the teachers and the student's learning capacities are both strongly impacted by these challenges.

Legal Foundation for the teaching TLE according to the Philippine Constitution's Article II, Section 17, it is the state's policy to "give priority to education, science and technology, arts, culture, and sports in order to foster patriotism and nationalism, accelerate social progress, and promote total human liberation and development." RA 10647, an act strengthening the ladderized interface between technical-vocational education and training in higher education, is a law that strengthens this which was enacted on November 21, 2014.

The framework of TLE teaching in the K to 12 curricula made by the TLE experts of the department of education cited the following in relation to teaching approaches, methods and techniques – entrepreneurial, contextualized, integrative, experiential, authentic and constructivist learning. Since TLE is a skill subject, Explicit Instruction Approach is most appropriate. (Baldo, 2018).

The goal of this study is to determine the challenges encountered by the TLE teachers during blended learning in using explicit instruction approach. The study will be conducted in selected schools in District of Laguna. The respondents will be the Grade six TLE Teachers. These respondents will be surveyed face to face through questionnaires.

This investigation focuses in the explicit instruction approach. Such research exists, has accumulated over many years, and originates from a variety of research kinds and fields. After learning about the challenges associated using the explicit instruction approach during blended learning. The researchers proposed an intervention program for TLE teachers to effectively use explicit instruction approach in any classroom set up.

1.2. Statement of the Problem

This is an in-depth analysis of the challenges encountered by grade 6 TLE teachers during blended learning in selected schools in District of Laguna using explicit instruction approach. Specifically aims to answer the following questions:

1. What is the level of challenges encountered by grade 6 TLE teachers during blended learning using explicit instruction approach in terms of:
 - 1.1 critical content;
 - 1.2 guided practice; and
 - 1.3 independent practice?
2. What is the level of student's academic performance in terms of:
 - 2.1 first grading period;
 - 2.2 second grading period?
3. What is the difference between the academic performance of the students in the first grading period and the second grading period after grade 6 TLE teachers encountered challenges during blended learning using explicit instruction approach?

1.3. Objectives of the Study

The general objective of this study is to determine the challenges of grade 6 TLE teachers in District of Laguna that used explicit instruction approach during blended learning.

The study specifically seeks:

1. To determine the level of challenges encountered by grade 6 TLE teachers during blended learning using explicit instruction approach in terms of critical content, guided and independent practice;
2. To determine the level of student's academic performance in terms of first grading and second grading period;
3. To identify the difference between the academic performance of the students in the first grading period and the second grading period after grade six TLE teachers encountered challenges during blended learning using explicit instruction approach.

1.4. Significance of the Study

This study will benefit the following:

Teachers. This will be a great help for those who are teaching TLE in elementary school, especially those who encountered challenges using explicit instruction approaches. A lesson guide and learning material utilizing an explicit instruction approach would give them patterns on how to improve TLE teaching that may catch interest in learning it among the students.

Students. They may awaken student academic performance in TLE and enjoy learning using explicit instruction approach and develop series of instructional behavior that increase the likelihood for student achievement.

Parents. This can make parents aware of what their children are learning, they are more likely to help when they are requested by teachers to become more involved in their children's learning activities at home.

School Heads. It is a beneficial information that can help school administration support teaching TLE for the benefit of increasing mastery of learning competencies of students, and would have a basis for an intervention plan in the future.

Future Researchers. This research can serve as related study for future researchers that will venture on the same field of study.

1.5. Hypothesis

There is no significant difference between the academic performance of the students in the first grading period and the second grading period after grade 6 TLE teachers encountered challenges during blended learning using explicit instruction approach.

1.6. Scope and Limitations of the Study

This study covered the challenges encountered by grade 6 TLE teachers during blended learning in selected schools in District of Laguna using explicit instruction approach. This study was conducted in the first semester of the school year 2022- 2023. The data collection process involved fifty percent (50%) of the grade 6 TLE teachers in selected schools in district of Laguna. This study focused on the explicit instruction approach in teaching TLE during blended learning. This study was done through the utilization of the questionnaire. After learning about the challenges associated using the explicit instructional approach during blended learning. The researchers proposed an intervention program for TLE teachers to effectively use explicit instruction approach in any classroom setup.

1.7. Definition of Terms

To make the readers understand specific terms used in the study. The following terms were defined:

Academic Performance. The measurement of student achievement across various academic subjects.

Approach. An approach gives rise to methods, which are the ways of teaching that use activities or other teaching strategies to aid students in learning.

Blended Learning. Process where more traditional methods for training (in-class, instructor-led) are combined with eLearning content to create a more flexible user experience.

Critical Content. Lesson that portrays a clear progression of information that leads to deeper understanding of the content.

Distance learning. Online education is possible for students through distance learning. The internet is used to deliver lectures and educational materials. Instead of in a classroom, students work from home.

Explicit Instruction. The teacher leads the lesson and gives students clear, guided instructions from the front of the classroom. Explicit instruction, also known as direct instruction, is a teaching strategy that works best for the development of a specific skill rather than necessarily those that call for experimentation.

Guided Practice. The “we do” component of an explicitly taught lesson, involves the teacher working through problems with students at the same time, step-by-step, while checking that they execute each step correctly.

Independent Practice. The “you do” component of an explicitly taught lesson. Independent practice provides an opportunity for students to practice the skills or concepts from the lesson.

Pedagogy. Pedagogy is the method and technique of teaching, particularly as an academic discipline or conceptual idea.

TLE (Technology and Livelihood Education). The curriculum-required study areas students will study things like home schooling, sewing, cooking, and other skills to obtain necessities and the means to enhance them to have a better life.

2. Review of Related Literature

This chapter presents related literature and studies after detailed and rigorous search done by the researchers. This chapter provides the synthesis as well as the theoretical and conceptual frameworks of the research.

The global outbreak of the COVID-19 pandemic has spread throughout the world, affecting nearly all countries (Sintema, 2020). And has created unprecedented economic, social, and political challenges around the world. It has resulted in an educational crisis as well as a health crisis. Lockdowns and quarantines affected 87% of the world’s student population, and 1.52 billion students were unavailable from school and related educational institutions (UNESCO Learning Portal, 2020). The suddenness, uncertainty, and volatility of COVID-19 hurried the education system to address the changing learning environment.

Alternatively, research identifies certain deficiencies such as a lack of online teaching infrastructure, a lack of teacher exposure to online teaching, an information gap, a non-conducive environment for learning at home, equity, and academic excellence.

Although all teachers are expected to guide their student’s learning and provide opportunities for them to learn on their own if online learning continues until the end of the year, it will pose challenges for both teachers and students. The environment of online teaching is very different from that of a face-to-face classroom. It is challenging for teachers to get to know their students as individuals in the online classroom, which makes them doubt their ability to teach in the online classroom (Haverback, 2020).

Specifically, in the world of teaching, different teachers employ various strategies based on student’s abilities and capabilities. Since they are living in the twenty-first century, new forms of information, communication, and collaboration are widely used in teaching technology and livelihood education. Teaching

strategies are important in teaching because they contribute to the development and improvement of student's performance. (2019, Blanca)

As a result of this pandemic, each teacher should have other strategies for implementing his or her teaching through an online classroom. Teachers are unable to meet with students, so they must quickly adopt the new teaching method (Yao et al., 2020). Evidence of teaching practices is used to base the student's feedback.

The online environment can usually be controlled, but without effective feedback, learning becomes more challenging (Steele & Holbeck, 2018). Each teacher is encouraged to improve their skills in learning and teaching with technology.

Additionally, according to the result of the study of Doucet et al., (2020) teachers must develop innovative initiatives to help overcome the limitations of virtual teaching. Local teachers are actively collaborating with one another to improve online teaching methods. As educators, parents, and students share similar experiences, there are incomparable opportunities for collaboration, creative solutions, and a willingness to learn from others and try new tools. Many educational organizations are making their tools and solutions available for free to assist and support teaching and learning in a more interactive and engaging environment. Online learning has enabled teachers and students to teach and learn in interesting ways, in contrast to traditional classroom settings.

With so many platforms and online educational tools available, users both educators and learners face frequent challenges. Similarly, modular distance learning presents challenges for TLE teachers and learners in terms of teaching and assessment, such as limitations on providing immediate feedback and the need to account for different contexts when designing, implementing, and grading assessment tasks. The grading system is divided into two parts: written work is thirty percent (30%) and performance tasks are seventy percent (70%). (DepEd, 2021). It is used to track student's progress in meeting learning standards and developing 21st century skills, to encourage self-reflection and personal accountability among students, and to provide a foundation for student profiling.

Based on Pura and Galicia (2022), teachers teaching TLE using the modular distance learning approach should be given attention and enthusiasm to teach even with an emotion and setting the mind right, as well as coming face to face with challenging learners or students. Regarding the coping mechanisms of the participants who dealt with the challenges and demands of teachers with their student's evaluation, perk of collaboration, and their flexibility and resiliency are the composure and conviction, active collaboration with the school principal's which make things possible.

However, due to the emergence of the pandemic Covid-19, all educational activities were forced to be conducted online. According to Bibi and Jihan (2020), online learning has presented numerous challenges for instructors, while students have been caught off guard in the online learning environment. These challenges necessitate that instructor's step outside of their comfort zone and investigate more technological means of ensuring that their students understand the topic being taught. The same is true for students, who must face the challenges of studying from home. Different ways of thinking about teaching online and studying from home must be investigated.

The crucial question here is whether students can grasp the material meaningfully. This is especially true for skill-based subjects which would be impossible to provide via an online mode. While there have been numerous challenges for educators, schools, institutes, and the government regarding online education from various perspectives, the COVID-19 pandemic has created several opportunities for those who are unprepared and have long-term plans to implement an e-learning system.

Significantly, it has strengthened the bond between teachers and parents like never before. Homeschooling requires parents to financially and academically support their children's learning. For the first time, online platforms such as google classroom, zoom, virtual learning environments, social media and various group forums such as telegram, messenger, whatsapp, and weChat are being explored and tested for teaching and learning. Even after face-to-face teaching resumes, this can be explored further, and these

platforms can provide additional resources and coaching to the learners.

In this regard, Regional Memorandum No. 233, s. 2016 regarding the implementation of pedagogical approaches mandated by R.A 10533 states that the curriculum shall use constructivist, inquiry-based, reflective, collaborative, and integrative pedagogical approaches. This was designed to assist all teachers facilitating learner-centered instruction in making the curriculum relevant and strengthening the teaching and learning process, which would result in improved performance of all learners in any Department of Education assessment.

In connection with this, according to the study of Calanog, (2019), teachers were constantly exerting considerable effort in teaching TLE to make it more interesting and meaningful to each learner using appropriate pedagogical approaches in each lesson. However, it is unfortunate that, as of now, students in grades 7 and 8 taking exploratory courses in TLE are unsure of which courses they will take when they advance to the next year level. At their young age, they tend to choose the easiest option, or the courses offered by the school. Students rely solely on what they already know because they have not been exposed to various learning path.

A series of challenges were experienced by the teachers during modular learning due to the pandemic including the preparation, collection, and retrieval of modules, monitoring each student's learning, evaluating their submitted outputs, providing feedback on student's performance, especially on performance-based subject.

Moreover, Beinert et al., (2021) states that TLE teachers tend to have a mismatch between the curriculum guidelines and its teaching practices. During the face-to-face classes, teachers teaching TLE ensures the value of food nutrition and its limited time given to its students for their activity/performance task but there is also a misalignment between the student and teachers' perspectives. As a solution to improve its pedagogical implications and meet curriculum demands, there should be a focus on comprehensive nutrition.

Considering the findings, it is recommended that teachers who are guided by pedagogical approaches in teaching instill sequential and meaningful activities in their daily lesson log. Teachers should also participate in training, seminars, and workshops to become more familiar with the use of pedagogical approaches in the teaching and learning process.

To pique students' interest, teachers should create instructional materials that use pedagogical approaches as a guide to incorporate innovative teaching strategies (Calanog, 2019)

2.1. Blended learning

In today's generation, blended learning approach was modified in various researches and was made contextualized utilizing Facebook as platform. These studies assumed that all students had access to the internet using Facebook, but there were a handful of students who had difficulties in going online regularly. Blended learning is highly dependent in ICT resources. Integration of ICT into teaching and learning promotes better learning and retention, motivations, individualization, consistency, learner control, high-speed personalized responses, and collaboration. Besides, it arouses interest and increases achievement rate of the learners (R.A.10533). House Bill No. 53, state that one of the solutions to address the deteriorating quality of education is through the utilization of various ICT as a tool for learning and teaching.

Several studies have underscored the benefits of integrating ICT particularly in the education system (Benitez, 2018). Utilizing ICT significantly contributed to the acquisition and absorption of knowledge among the students by increasing their motivation and engagement in classroom activities, particularly a computer with internet connectivity provides the learner an opportunity to connect with other people and provides them ready access to wireless data and information.

Blended learning, where student's face-to-face education is blended with internet resources or online activities, has been gaining considerable attention in education reform circles. It has become entangled with

the ambiguous notion of personalized learning and is being positioned as the new way to individualize learning in competency-based education systems. (McRae, 2019).

Various literatures report that utilization of information and communication technologies (ICT) can bring beneficial effect in improving teaching and learning process (Ahmed, Arshad, & Tayyab, 2019); However, they also demonstrated little or lack of understanding to blended learning concepts.

Respondents also perceived blended learning as difficult to execute in classroom environment due to the absence of institutional policies on the use of blended learning, lack of ICT training/knowledge (e.g., technophobia), poor confidence to engage in blended learning approach, and limited access to computer laboratories. Hence, these were perceived to be hindrances in the implementation of blended learning. Interestingly, results of this study claimed that blended learning can mobilize the classroom environment due to its flexibility (e.g., Bhowmik, Meyer, & Phillips, 2019; Bouilheres, Le, McDonald, Nkhoma, & Jandug-Montera, 2020).

Similarly, a study conducted by Holmes and Prieto-Rodriguez (2018) where mix research method was employed to examine the perceptions of academic staff and students on various Learning Management System (LMS) in terms of effectiveness in teaching and learning, and the affordances it can bring, such as accessibility and interactivity. Findings revealed that the most effective element of LMS in course learning for teachers are: access to course materials; recorded face-to-face lectures; course blogs or wikis; and online discussion. These mean that the results for LMS effectiveness in terms of accessibility in teaching and learning revealed a statistically different response for academic staff and students. However, there is no significant difference in relation to LMS interactivity.

According to the study conducted in Saudi by Aldosemani, Shepherd & Bolliger (2018) revealed that majority of the faculty members have understood their roles in blended-based environment. It was found out that blended learning mitigates the delivery of teaching and learning access regardless of time and space (Aldosemani et al., 2018). Findings revealed a positive perception of academic staff towards the affordability that blended learning can bring in teaching and learning context. It emphasizes the view of blended learning as it delivers access to course materials regardless of time and space. It indicates significant valuation of personal space and convenience in accessing learning resources.

2.2. Technology and Livelihood Education (T L.E)

A curriculum refinement, now known as the 2010 Secondary Education Curriculum, was made in 2010 and implemented in the 2010-2011 school year. The curriculum adhered to the Understanding by Design (UbD) framework, which promotes a personalized approach to developing students' multiple intelligences through the provision of extracurricular activities. Students must take eight subjects as part of this curriculum, one of which is TLE, now known as career pathways in technology and livelihood education (CP-TLE).

Indeed, providing TLE is a response to a community need, given that the nature of this course would provide practical knowledge, vocational and technological efficiency skills, and problem solving in daily life. TLE is incorporated in the Makabayan subject and considered the laboratory of life or practice environment under the Basic Education Curriculum (BEC) of 2002. As a result, TLE became one of the school's sources of practice for students.

According to the results of the study of Villegas (2022), students believed their TLE teachers can create a comfortable, learning-friendly classroom where they feel welcome. Classroom management encompasses all teachers must do in the classroom to encourage student's academic participation and collaboration in classroom activities to create a positive learning environment. Another research also stated in its results that messenger chat bot was highly accepted as an assessment tool in learning delivery since students found the messenger as an interactive and fun way of taking quizzes and tests where they get positive feedback whenever they got a correct answer which helped to boost their confidence to finish test and quizzes

(Osorio, 2021). Furthermore, the different strategies in teaching TLE subjects are anchored to be learned by both the TLE teachers and future TLE teachers that might have a difficulty in delivering the TLE lessons. Recent changes to the secondary curriculum make teaching more difficult.

A teacher not only has the knowledge and skills to teach a subject, but is also familiar with the latest teaching approaches and trends (Padullo et al., 2021). Electronic modular instruction is one of those different strategies that TLE teachers could benefit from.

TLE subjects improve student achievement based on social constructivism and activity theory in an online platform. Free e-modules for secondary students, including alternative Delivery Mode (ADM), improved overall academic achievement. Drawn from the results of the study of Morales and De Vera (2021), getting a hands-on experience; creating projects; and practicing difficult areas are some of the strategies that are needed in the TLE subjects.

The study of Calanog (2019) analyzed the degree of proficiency of TLE teachers in his study in relation to their instructional performance as stipulated by TESDA regulation.

Similarly, it characterized the TLE instructor's personal and professional traits and competencies in the four areas of TLE: Home Economics, Industrial Arts, Information and Communications Technology, and Agri-Fishery Arts. It also assessed TLE instructor's skills in terms of topic knowledge within and across curricular teaching areas, tactics and techniques, classroom management, ICT integration, and assessment and evaluation. It has been discovered that mastery of information inside and beyond curriculum teaching areas is important. TLE teachers were judged to be extremely competent in terms of understanding of material inside and cross curricular teaching areas when it came to knowledge and content. According to Fuente and Bias (2020),

TLE teachers are more advanced in information and communication technology than other subject teachers. Their ability to motivate students to create and connect subjects received the highest rating. The level of competency of the new generation of teachers may be comparable to that of experienced teachers. TLE teachers are "experienced" in the majority of the competencies (Elli and Ricafort, 2020). Blanca (2019) claimed that teachers use various strategies, that suited to the skills and Competence of learners because technologies and new forms of strategies are used in TLE instructions as it would give an important part in honing and improving student's ability to perform.

In addition, Carreon (2018), revealed the use of Facebook as a tool for integrated blended learning in TLE, different approach was used in giving materials to students like audio-visual presentation, videos on the topic, modules that are posted on Facebook group. It has been found that the use of blended learning plays a vital role in the improvement of students' performance in TLE exploratory. Engaging students in different contextualized blended learning interventions and instruction signifies the improvement in TLE specialization where teachers adhere to aim improvements towards their performance tasks and own-paced supplementary learning delivery. It be accomplished by allowing the teachers to bring real-life challenges to the students. Assemble a group and lead them through the process of figuring out what's going on. To find out the solution, do a hands-on exercise to find an answer. This implies that skills should not be learned solely in the classroom. Regular practice, such as reading, writing, and math, is beneficial which is taught in the course of those activities on a regular basis (Hickman and Akdere, 2018).

2.3. Explicit Instruction Approach

In the quest to maximize student academic growth one of the best tools available to educators is the explicit instruction approach structure systematic and effective methods for teaching academic skills it is called explicit because it is an unambiguous and direct approach to teaching that includes both instructional design and delivery procedure (Archer and Hughes, 2011)

According to Hughes et. Al 2018, over the last twenty (20) years, the instructional approach known

as "explicit instruction" has been mentioned as an instructional method in the learning disabilities literature more frequently. Explicit instruction is not a single intervention, but rather a collection of several teaching behaviors or components used to design and deliver instruction. This multifaceted aspect most likely contributes to the variability of explicit instruction descriptions and definitions found in journals, books, and other published documents. We attempt to define and describe the term more precisely to increase the clarity and consistency of its use in both research and practice, as explicit instruction has become a prominent and frequently discussed topic in special education.

Explicit instruction is a teaching model that demonstrates to students what to do and how to do it. One goal of ideology is to narrow down the who, what, when, where, and why of a disciplinary field. Trained home economists are dedicated to the core ideology of home economics. The home economics knowledge base includes mechanisms for identifying locally relevant challenges faced by individuals, families, and communities. Home economics education programs must actively teach or provide explicit instruction about the ideology that underpins the home economics disciplinary field to identify challenges and locate solutions (who, what, when, where, and how). Ideology neglect results in the teaching of unrelated subjects or compartmentalized content, which may decrease connection to the core goals. (Daegan, 2021)

As a result, explicit instruction is made up of a collection of research-backed instructional elements that are used in tandem to design and deliver instruction in ways that provide students with the necessary support to successfully engage in an explicit lesson. A substantial amount of research has been published over the last several decades to support a direct and explicit approach to teaching. The opening of a lesson includes ensuring that students are ready to learn the new content, providing a brief preview of what is to be learned, and explaining why the content is important to learn. Explicit instruction and the instructional elements that comprise it are well supported by research that is based on how students learn.

2.4. Critical Content

According to the recommendation of the research by Amber 2018 entitled "Identifying Critical Content: Classroom Techniques to help students know what is important. In the context of teaching students brand new information, identifying critical content is one strategy you can't live without. As you become more skilled in this strategy, you will see remarkable changes in your students' abilities to process and understand new content because they are able to identify which content is critical and understand how learned content scaffolds in complexity.

A classroom of scholars identifies critical content within standards, but also studies, recognizes, and celebrates as knowledge grows increasingly more sophisticated. Whether that standard is part of the CCSS or your district or state standards, your students will benefit from your expertise at identifying and conveying critical content to them. Take a moment to picture what you are preparing your students for: success in their future careers. In the workplace, information in constant competition for mental real estate will bombard your students. The skill of distinguishing critical information from that which is not critical is essential to a successful career. This instructional strategy reaches beyond helping students know what is critical in your classroom; it prepares them for a lifetime of being able to identify critical information (Marzano, 2018).

The first step to helping your students know what is important is identify a lesson, or part of a lesson, as involving important content to which students should pay particular attention. This strategy is integral to helping your students understand new knowledge, make connections to prior learning, and ultimately retain new content. When implementing instructional strategies, teachers should identify and plan for the interdependence and cumulative effect among them. For example, once a teacher has identified the critical content, the next step is to preview the content with students, chunk that critical content, and ask students to process that content.

After students have processed the content, teachers will ask questions that require students to make

inferences, or elaborate, about content to further extend understanding. A teacher wanting to monitor whether students have internalized the critical content may ask them to record, represent, and reflect on this knowledge. The instructional strategies don't work in isolation, but a teacher with a broad instructional repertoire will skillfully blend the strategies in order to get overarching desired results. Although this guide will focus on identifying critical content, it will also highlight the natural connections between this and other strategies, such as previewing and recording and representing.

There are many strategies that you can employ to intentionally teach content to students. The important attribute of identifying critical content is the role it plays when teaching something for the first time. Whenever you prepare to teach brand new knowledge, concepts, or skills that are likely to be unfamiliar to all or almost all of your students, communicate to them why the new learning is important; how it connects to their prior learning or experiences; and when the new knowledge will be necessary or beneficial (Rutherford, 2018).

2.5. Guided Practice

Guided Practice, also known as the 'we do' component of an explicitly taught lesson, involves the teacher working through problems with students at the same time, step-by-step, while checking that they execute each step correctly. (Hollingsworth & Ybarra, 2018). Guided Practice provides an opportunity to work through several examples of the newly taught skill or concept together, as a class.

Similarly, Teachers should aim for a high success rate prior to releasing students who are ready to practice skills and tasks independently, to ensure that they will not practice errors. Checking for understanding as well as providing immediate, effective feedback is crucial during the Guided Practice component of the lesson. The teacher should provide several examples for all students to work through, following the 30-40-30 'rule': 30% of examples being accessible at a basic level (begin with these). 40% of examples aimed for at the grade or 'core' level. 30% of examples should be challenging. (After the students have successfully completed less difficult examples). During guided practice, instructors engage all students by asking questions to guide learning and understanding as students actively participate in solving problems. During this phase, instructors prompt and scaffold student learning as necessary.

Scaffolding is gradually eliminated as students demonstrate accuracy in using the material being taught. Positive and corrective feedback is provided during this phase, and instruction is adjusted to match student needs. Students should reach a high level of mastery (typically 85 percent accuracy or higher) before moving out of the guided practice phase. Although there are no specific guidelines concerning how much time should be devoted to each phase, the bulk of the instruction should occur within the guided practice phase. (Intensive Intervention, 2018)

Teachers ask questions for many instructional reasons, including keeping students' attention on the lesson, highlighting important points and ideas, promoting critical thinking, allowing students' to learn from each other's answers, and providing information about students' learning. Devising good appropriate questions and using students' responses to make effective instantaneous instructional decisions is very difficult.

Some strategies to improve questioning include planning and writing down the instructional questions that will be asked, allowing sufficient wait time for students to respond, listening carefully to what students say rather than listening for what is expected, varying the types of questions asked, making sure some of the questions are higher level, and asking follow-up questions. (Seifert and Sutton, 2019)

2.6. Independent Practice

Independent practice is also known as the “you do” component of an explicitly taught lesson. Independent practice provides an opportunity for students to practice the skills or concepts from the lesson. Its purpose is to increase students’ fluency, enabling for a more automatic recall of the skills that have been learnt as well as freeing up space in working memory so that higher-order tasks can be applied. Independent practice should be meaningful and directly link to the key concepts and learning intentions of the lesson. Students should be able to complete independent practice tasks with a minimum of teacher assistance. During this component of teaching however, teachers should still check for student understanding and provide effective feedback.

Teachers should ensure that independent practice tasks closely match to the learning intentions of the lesson. Tasks should not include skills or concepts that have not been previously taught. Independent practice tasks can be completed by students individually, in pairs or in small groups and is most beneficial when teachers ensure that it is structured. Teachers can use phrases such as: Class in a few minutes we will go over the answers to Problems 1 and 2. Students should know how to complete the tasks as well as understand the teacher’s expectations about their completion.

Additionally, after achieving a high level of mastery, students move to the independent practice phase where they autonomously demonstrate their new knowledge and skills. During independent practice, the instructor closely monitors students and provides immediate feedback as necessary. Countless independent practice activities can be used with students, and the primary focus of the independent practice activity should be related to the content of the modeling and guided practice. If students demonstrate difficulty at this stage, instructors evaluate and adjust their instruction to re-teach concepts as needed. (Intensive Intervention, 2021)

2.7. Theoretical Framework

2.7.1. Constructivist Theory

This study is anchored on the constructivist theory of Bruner. According to him in distant learning, teacher’s three tasks are as follows: first, they should encourage students to form hypotheses, make choices, and principles on their own. Second, put the material to be learned in a format that suits the learner’s current comprehension level. Third, set it up a spiral pattern such that the student keeps building on what they have learned so far. approaches and practices. This proved that the theory strongly adheres to modular instruction because of the passive giving of information through modular learning, and the students is the one who further the knowledge gained. Because of this, the teacher’s main duty is to foster a culture of cooperative problem solving where pupils take an active role in their own education.

2.7.2. Behaviorist Learning Theory

Another study is anchored on the explicit instruction approach is the Behaviorist Learning Theory by B.F Skinner. According to him, direct instruction breaks each learning task down into its smallest component and requires mastery of simpler skills before proceeding to more difficult skills. Students are grouped according to their achievement, teachers are provided with closely scripted lesson plans, students respond to the teacher orally and as a group, and the group does not move on until everyone understands the material.

2.7.3. Community of Inquiry Theoretical Framework in Blended Learning

The Community of Inquiry (CoI), a model of inquiry-based teaching and learning, is based on the work of John Dewey and constructive views of experiential learning. The CoI framework describes the necessary elements to create deep and meaningful learning. The original framework identifies the education experience as occurring at the convergence of three presences: cognitive, teaching and social. In our application of this model, presence is defined as a state of alert awareness, receptivity and contentedness to the social, cognitive, emotional and physical workings of both the individual and the group in the context of their learning environments.

2.8. Conceptual Framework

Figure 1. Research Paradigm of the Study

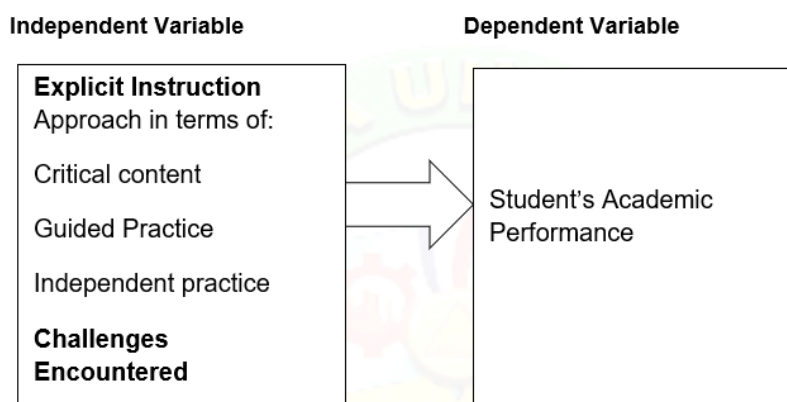


Figure 1 shows the relationship between the independent and dependent variable which refers to explicit instruction approach in terms of: critical content, guided and independent practice and challenges encountered, to the student's academic performance.

2.9. Synthesis

Technology and Livelihood Education (TLE) is an important subject, and teachers have an impact on whether students understand TLE concepts and topics. especially, during blended learning. Explicit instruction is one teaching strategy, particularly in skill-based subjects such as TLE even though explicit instruction plays an important role for teachers. This teaching method poses challenges for teachers who use it. To address the challenges, and make the teaching and learning process effective for both students and teachers, teachers must have knowledge and expertise in this matter. After learning about the challenges associated using the explicit instruction approach during blended learning. The researchers proposed an intervention program for TLE teachers to effectively use explicit instruction approach in any classroom setup.

3. Methodology

This chapter covers the research design and methodology, including sampling, population, establishing rigor during and after data collection, ethical consideration and data analysis.

3.1. Research design

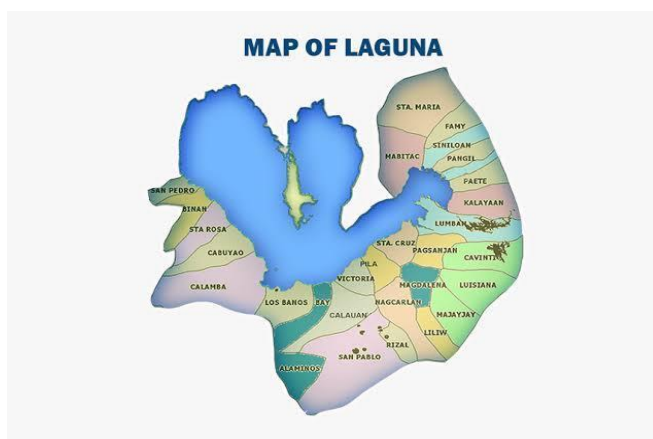
This study utilized quantitative research design in order to better understand a phenomenon and respond to the research questions. The fundamental idea behind quantitative research is that it is a systematic investigation of phenomena by gathering quantifiable data and performing statistical, mathematical, or computational techniques.

The researchers collected data with the use of survey questionnaire utilizing Likert scale. The quantitative approach provided a more thorough understanding of the challenges encountered by TLE teachers during blended learning using explicit instruction approach. It is designed to portray the probable conditions of a particular situation as it exists during the time of the study.

3.2. Research Locale

The study was conducted on selected schools in District of Laguna namely; Crisanto Guysayko Memorial Elementary School- Nagcarlan Laguna, Plaridel Elementary School- Nagcarlan Laguna, Calumpang Elementary School, San Antonio Elementary School Pila Laguna, San Antonio Elementary School Luisiana, Laguna, Victoria Elementary School and Francisco S. Brosas Elementary School.

Figure 2. Location of the Study Site



3.3. Population of Study

The respondents of the study were the grade 6 TLE teachers in selected schools in District of Laguna. This study was carried out by fifty (50) grade 6 TLE teachers. The study used purposive sampling in choosing the participants that includes: (1.) grade 6 TLE teachers, (2.) experience in blended learning, (3.) openness in sharing challenges encountered during blended learning.

3.4. Research Instrument

For the investigation and data collection, a face-to-face pre-survey questionnaire and Likert scale questionnaire was designed to determine the challenges encountered by TLE teachers during Blended learning. The questionnaire is in Likert scale form which covered the study's objectives, and designed via forms and distributed among teachers at the beginning of their 4th grading period in 2023. The questionnaire

was checked and validated by experts from the field.

3.5. Data Gathering Procedure

First, the researchers secured a permit to conduct a face-to-face survey among TLE teachers. The questionnaire was verified and validated by an expert. By the use of purposive sampling, fifty (50) teachers were chosen to be the respondents. The researchers also request a copy of grade 6 student's academic performance in quarter 1 and 2 SY: 2021-2022. The researchers administered the actual giving of the questionnaires. Each teacher was given 30 minutes to read and analyze the questions. The papers were collected afterwards, and tallied, tabulated and interpreted.

3.6. Treatment of Data

The researchers used the following treatment of data to determine the challenges encountered by grade 6 TLE teachers during blended learning in selected schools in District of Laguna. The quantitative data, (Frequency and Percentage Distribution) and the percentage frequency distribution were used to determine the relative frequency of the survey response and other data. (Standard Deviation) The researchers used standard deviation to measure the dispersion of a dataset relative to its mean and it is calculated as the square root of the variance. (Mean of Grouped Data) The mean of grouped data was used to determine whether the study is effective or not. (Regression Analysis) Statistically sorting out which variables did not have an effect.

4. Results and Discussion

This chapter includes the results of the statistical analyses leading to the interpretation of the data.

Table 1. Level of Challenges Encountered by Grade Six TLE Teachers During Blended Learning in Selected Schools in District of Laguna using Explicit Instruction Approach in Terms of:

Level of Challenges		
	Overall Mean	Verbal Interpretation
Critical Content	3.08	Moderate
Guided Practice	4.24	Very High
Independent Practice	3.76	High

*4.20 - 5.00 Very High, 3.40 - 4.19 High, 2.60 - 3.39 Moderate, 1.80 - 2.59 Mild, 1.00 - 1.79 Very Low

Table 1 shows the level of challenges encountered by grade six TLE teachers during blended learning in selected schools in District of Laguna using explicit instruction approach in terms of Critical Content. The overall score is 3.08, indicates that the level of challenges encountered by grade six TLE teachers during blended learning were verbally interpreted as moderate. While the level of challenges encountered by grade six TLE teachers during blended learning in selected schools in District of Laguna using explicit instruction approach in terms of Guided Practice, was on score of 4.24, which indicates that the level

of challenges encountered by grade six TLE teachers during blended learning were verbally interpreted as very high. And finally, the level of challenges encountered by grade six TLE teachers during blended learning in selected schools in District of Laguna using explicit instruction approach in terms of Independent Practice has an overall score of 3.76, which indicates that the level of challenges encountered by grade six TLE teachers during blended learning were verbally interpreted as high.

This agrees with the study of Greg Ashman 2021, Explicit instruction's true effectiveness comes from its ability to encourage teachers to examine the individual elements they are planning to teach and continually check for student understanding. The primary goal is to help learners acquire basic information and skills, particularly information that is new or complex in nature. When too much information is presented to students at once, it becomes increasingly more likely that student misconceptions will develop. By teaching small increments of material, providing time for guided practice and then checking for student understanding, teachers are able to limit the number of misconceptions that students develop.

Table 2. Level of the Student's Academic Performance in Terms of:

Grading	Mean	Descriptor
First Grading Period	84.15	Satisfactory
Second Grading Period	83.54	Satisfactory

**90 -100 Outstanding (Passed), 85 - 89 Very Satisfactory (Passed), 80 - 84 Satisfactory (Passed), 75 - 79 Fairly Satisfactory (Passed), 70 - 74 Fairly Satisfactory (Passed), Below 70 Did Not Meet Expectations (Failed)*

Table 2 above shows the level of student's academic performance in first and second grading period. It manifested that the respondents obtained an average score of 84.15, on first grading period which had a descriptor of satisfactory. On the other hand, second grading period obtained an average of 83.54, which is described also as satisfactory.

Table 3. Difference Between the Academic Performance of the Student in Terms of:

Grading Period	F	df1	df2	p-value	Analysis
1st	0.5	3	37	0.685	Insignificant
2nd	3	3	31	0.563	Insignificant

Table 3 shows the difference between the academic performance of the students in first grading

period and the second grading period after grade six T. L.E. teachers encountered challenges during blended learning using explicit instruction approach. The result, therefore is concluded that there is no significant difference between the academic performance of the students in the first grading period and the second grading period during blended learning using explicit instruction approach. The null hypothesis is accepted.

This result disagrees on the research by Almoneda (2022), that there are difficulties in blended learning using different approach that negatively impacts the academic performance of a student such as overload worksheets, asking for help, and distractions that disrupts student learning.

5. Summary, Conclusion and Recommendation

This chapter presents the synopsis of the entire content of the study. It includes the summary, conclusions, and recommendations.

5.1. Summary of Findings

Based on the data gathered, the findings revealed the following results:

The level of challenges encountered by grade six TLE teachers during blended learning in selected schools in District of Laguna using explicit instruction approach in terms of critical content were verbally interpreted as moderate. In terms of guided practice, it was verbally interpreted as very high. In terms of independent practice, it was verbally interpreted as high. This shows that there is a challenge in using explicit instruction approach.

The level of the student's academic performance in first and second grading period which had a descriptor of satisfactory, On the other hand, second grading period was also described as satisfactory. This shows that there is no significant difference on student's academic performance during blended learning and face to face setup.

5.2. Conclusions

In line with the findings, the study reached the following conclusion: Based on the result of this study, it indicates that there is no significant difference between the academic performance of the students in the first grading period and the second grading period. The result of the study showed a weak correlation between the academic performance of the students after grade six TLE teachers encountered challenges during blended learning using explicit instruction approach. The null hypothesis is accepted. This result also indicates that teachers are effective despite the constraints posed by blended learning, and that there may be additional factors influencing academic performance other from the challenges stated. This result also disagrees on the research by Almoneda (2022) that there are difficulties in blended learning using different approach that negatively impacts the academic performance of a student such as overload worksheets, asking for help, and distractions that disrupts student learning.

5.3. Recommendations

Based on the findings and the conclusion of this research, the following recommendation are hereby suggested:

1. TLE teachers may use different teaching strategies that may suit the diverse learning styles of the students.

2. Students may practice to apply their learning styles into what they preferred the most to improve their academic performance.
3. Parents may practice active participation in their child's education by nurturing an environment that promote academic growth and success.
4. School heads may suggest a plan that allows to teach TLE successfully for the benefit of increasing learning competencies of both teachers and students.
5. Future researchers may conduct researches related to the challenges encountered by TLE teachers during blended learning using explicit instruction approach considering other variables that are not included in this study.
6. Researchers may propose an intervention program to improve the teaching of grade six TLE teachers in selected schools in District of Laguna using explicit instruction approach.

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References

- Alam M. B. (2021). Self-learning modules(SLM's) in TLE; an analysis of the views and perceptions if TLE teachers EPRA International Journal of Multidisciplinary Research (IJMR) 104
- Albiladi W. S. & Alshareef K. K. (2019). Blended learning in English teaching and learning: A review of the current literature. Journal of Language Teaching and Research 10(2) 232-238.DOI: <http://dx.doi.org/10.17507/jltr.1002.03>
- Aldosemani T. Shepherd C. E. & Bolliger D. U. (2018). Perceptions of instructors teaching in Saudi blended learning environments. TechTrends 63(3) 341–352. DOI: <http://dx.doi.org/10.1007/s11528-018-0342-1>
- Alsong T. Alsong L. (2019) Facilitating Learning and Academic Performance of Students in TLE under K to 12 Curriculums
- An Y. Kaplan-Rakowski R. Yang J. Conan J. Kinard W. & Daugherty L. A. (2021). Examining K-12 teachers' feelings experiences and perspectives regarding online teaching during the early stage of the COVID-19 pandemic - educational technology research and development. SpringerLink. <https://link.springer.com/article/10.1007/s11423-021-10008-5>
- Ando K. Basilescu J. Deniega A. Gador K. Geraldo P. J.Gipulao W. E. M. ... & Minyamin A. (2022). Learning without Learning in the New Normal: College Education Students Lived Experiences in Blended Learning Modality. Psychology and Education: A Multidisciplinary Journal 2(6) 455-464. doi: 10.5281/zenodo.6791799
- Anzaldo G. D. (2021). Modular distance learning in the new normal education amidst Covid-19. International Journal of Scientific Advances 2(3) 233-266.
- Applying the community of Inquiry Framework. Center for Teaching Excellence. (2020 May 28). <https://cte.virginia.edu/resources/applying-community-inquiry-framework>

- Asio J. M. R. & Jimenez E. (2020). Effect of remediation activities on grade 5 pupils' academic performance in technology and livelihood education (TLE).
- Atmojo A. E. P. & Nugroho A. (2020). EFL Classes Must Go Online! Teaching Activities and Challenges during COVID-19 Pandemic in Indonesia. *Register Journal* 13(1) 49–76. <https://doi.org/10.18326/rgt.v13i1.49-76>
- Bagood J. B. (2020). Teaching-learning modality under the new normal. Philippine Information Agency.
- Bahinting M. A. Ardiente M. Endona J. Herapat M. A. Lambo D. Librea H. J. ... & Minyamin A. (2022). Stronger than the Internet Connectivity: A Phenomenology. *Psychology and Education: A Multidisciplinary Journal* 2(6) 465–476. doi:10.5281/zenodo.6791820
- Bautista Jr. (2021) School Support Received and the Challenges Encountered in Distance Learning Education by Filipino Teachers during the Covid-19 Pandemic Vol 20 No 6
- Beinert C. Palojoki P. Åbacka G. Hardy-Johnson P. Engeset D. Rudjord Hillesund E. ... & Nordgård Vik F. (2021). The mismatch between teaching practices and curriculum goals in Norwegian Home Economics classes: a missed opportunity. *Education Inquiry* 12(2) 183–201.
- Blanca A. (2022) Effective strategies in teaching technology and Livelihood Education to selected grade 9 students in Batangas National High School. *Ascendens Asia Journal of Multidisciplinary Research Abstracts*. <https://ojs.aaresearchindex.com/index.php/AJMR/article/view/8611>
- Byrne V. L. & Donlan A. E. (2020). Presenting a Validated MidSemester Evaluation of College Teaching to Improve Online Teaching. *Online Learning* 24(2). <https://doi.org/10.24059/olj.v24i2.2126>
- Cabello C. A. (2022). Higher Education Professors in Blended Learning Modality of Teaching: The Silent Tears of Heroes Towards Resiliency. *Journal of Positive School Psychology* 6(3) 6171–6183.
- Calanog M. C. B. (2019). Challenges in Teaching Exploratory Courses of Technology and Livelihood Education using Pedagogical Approaches. Batangas Philippines; www.ijresm.com.
- Carreon J. R. (2018). Facebook as Integrated Blended Learning Tool in Technology and 2 Livelihood Education Exploratory. *International Journal of Educational Technology* 5(2)19–25.
- Ciğerci F. M. (2020). Slowmotion Experiences of Pre-Service Teachers Via Distance Education During the Covid-19 Pandemic Disease. 9(1)
- Daegon J. (2021). I do we do you do home economics: Explicit instruction connecting ...Research gate. https://www.researchgate.net/publication/357283741_I_Do_We_Do_You_Do_Home_Economics_Explicit_Instruction_Connecting_Content_with_Ideology
- Darsih E. (2018). Learner-centered teaching: What makes it effective. *Indonesian EFL Journal* 4(1) 33–42.
- Dhawan S. (2020). Online learning: a panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems* 0(0)1–18.
- Doucet A. Netolicky D. Timmers K. Tusciano F. J. (2020). Thinking about pedagogy in an unfolding pandemic (An Independent Report on Approaches to Distance Learning during COVID-19 School Closure). *Work of Education International and UNESCO*. https://issuu.com/educationinternational/docs/2020_research_covid-19_eng
- Ellis M. C. A. & Ricafort J. D. (2020) Competencies of grade VI teachers in technology and Livelihood Education (TLE). Online Submission. <https://eric.ed.gov/?id=ED607222>
- Ellis M. C. A. & Ricafort J. D. (2020). Competencies of Grade VI Teachers in Technology and Livelihood Education (TLE). Online Submission 10(4) 25425–25434.
- Eratay E. (2018). [PDF] effectiveness of the direct instruction method in teaching leisure skills to young individuals with intellectual disabilities: Semantic scholar. undefined. <https://www.semanticscholar.org/paper/Effectiveness-of-the-Direct-Instruction-Method-in-Eratay/9f433c937cd85dfd04bc1da2e06a56f76eb239dd>
- Estribar J. & Pagaran C. R. (2022). Learning Engagement of Food and Beverage Services (FBS) Students' of Matanao National High School during COVID-19 Pandemic. Available at SSRN 4032996.
- Fatonia N. A. Nurkhyati E. Nurdiauwati E. Fidziah G. P. Adhag S. Irawanh A. P. ... & Azizik E. (2020). University students online learning system during Covid-19 pandemic: Advantages constraints and solutions. *Systematic reviews in pharmacy* 11(7) 570–576.
- Fletcher J. Lyon G. R. Fuchs L. & Barnes M. A. (2019). *Learning disabilities: from identification to intervention* (pg.99). New York: The Guilford Press.
- Ford J. (2019). What are the challenges in teaching tle? AnswersToAll. From <https://answer-to-all.com/technology/whatare-the-challenges-in-teaching-tle/>
- Fuente J. A. D. & Biñas L. C. (2020). Teachers' competence in information and communications technology (ICT) as an educational tool in teaching: An empirical analysis for program intervention. *Journal of Research in Education Science and Technology* 5(2)61–76.
- Hammond L. (2019). What is explicit instruction and how does it help children learn? *Phys.org*. from <https://phys.org/news/2019-04explicit-children.html>
- Haverback H. R. (2020). Middle Level Teachers Quarantine Teach and Increase Self-Efficacy Beliefs: Using Theory to Build Practice During COVID-19. 6 7. Information processing theory. ETSU Center for Teaching Excellence.
- Johnson N. Veletsianos G. & Seaman J. (2020). U.S. Faculty and Administrators' Experiences and Approaches in the Early Weeks of the COVID-19 Pandemic. *Online Learning* 24(2). <https://doi.org/10.24059/olj.v24i2.2285>
- Joia L. A. & Lorenzo M. (2021). Zoom in zoom out: The impact of the COVID-19 pandemic in the classroom. *MDPI*. <https://www.mdpi.com/2071-1050/13/5/2531/htm>

- Kenney J. & Newcombe E. (2011 January 31). Adopting a blended learning approach: Challenges encountered and lessons learned in an action research study. *Journal of Asynchronous Learning Networks*. <https://eric.ed.gov/?id=EJ918218>
- Legarde M. A. A. & Sumandal A. H. (2022). Students' Level Of Engagement In Learning Technology And Livelihood Education In The New Normal. *education* 6(3).
- Legarde M. A. A. & Sumandal A. H. (2022). Students' Level Of Engagement In Learning Technology And Livelihood Education In The New Normal. *education* 6(3).
- Mabanglo J. D. (2021). learning experiences during pandemic of grade one pupils at anabu II Elementary school; basis for continuity plan of action for implementing alternative learning activities by. Copyright© 2021 by I DREAM Research Journal 59.
- Mangubat N. Bucotot M. C. Salatan J. & Tolentino J. (2022). (PDF) the technology and livelihood education teachers in modular ... Research gate. Retrieved from https://www.researchgate.net/publication/363172993_The_Technology_and_Livelihood_Education_Teachers_in_Modular_Instruction_A_Qualitative_Inquiry
- McLeod S. (2019). Constructivism as a theory for teaching and learning. *Simply psychology*.
- Metsämuuronen J. & Räsänen P. (2018). Cognitive–Linguistic and Constructivist Mnemonic Triggers in Teaching Based on Jerome Bruner's Thinking. *Frontiers in psychology* 9 2543.
- Morales M. A. & De Vera A. M. (2021). Acquisition and Practice of Technical Skills Among Grade 10 TLE Students. *Southeast Asian Journal of Science and Technology* 6(1) 1-13.
- Murgatrot S. (2020). COVID-19 and Online learning Alberta Canada. Doi:10.13140/RG.2.2.31132.8512.
- Nasr N. (2020). Teachers as Students: Adapting to Online Methods of Instruction and Assessment in the Age of COVID-19. 4.
- Olleras J. L. Dagwayan M. Dejacto A. M. Mangay J. R. Ebarsabal M. Diaz D. J. ... & Minyamin A. (2022). The Life of the Laters: Students Procrastination in Accomplishing Academic Deadlines in Online Learning. *Psychology and Education: A Multidisciplinary Journal* 2(5) 444-454. doi:10.5281/zenodo.6791776
- Orhan G. & Beyhan Ö. (2020). Teachers' perceptions and teaching experiences on distance education through synchronous video conferencing during Covid-19 pandemic. *Social Sciences and Education Research Review* 7(1) 8-44
- Osorio J. C. M. (2021). an interactive pedagogical assessment tool using messenger chatbot in learning delivery.
- Padullo Z. M. Fuertes A. C. Casa-alan R. M. M. Garalda J. T. Quintana E. P. & Fuertes Jr D. G. (2021). Using E-Modules in Teaching Technology & Livelihood Education For The Revitalized Alternative Delivery Mode Program of Holy Spirit National High School. *Academic Journal of Digital Economics and Stability* 3 34-43.
- Pardjono P. Suyanto W. Sofyan H. & Wagiran W. (2018 July). What do Vocational Teachers Industries and Experts View about the Future Learning of Vocational Schools?. In *International Conference on Indonesian Technical Vocational Education and Association (APTEKINDO 2018)* (pp. 250-255). Atlantis Press.
- Perez Z. O. Minyamin A. V. Bagsit R. D. Gimena G. B. Dionaldo W. V. Padillo E. S. ... & Cabello C. A. (2022). Research Capability of Faculty Members in Higher Education Institution: Basis for Research Management Plan. *Journal of Positive School Psychology* 6(3) 6215-6226.
- Person Charles A. P. J. & Hughes R. (2018). Use explicit instruction: 20: High leverage practices for inclusive. Taylor & Francis. <https://www.taylorfrancis.com/chapters/edit/10.4324/9781315176093-20/use-explicit-instruction-charles-hughes-paul-riccominijared-morris?context=ubx>
- Polcarpio P. (2018). Teaching grammar using localized instructional materials among multilingual learners. <https://www.researchgate.net/publication/344164100>
- Principles of instruction - guided practice. Principles of Instruction - Guided Practice. (n.d.). <https://www.aisnsw.edu.au/teachers-and-staff/teaching-and-learning/literacy-and-numeracy/foundations-of-effective-instruction/principles-of-instruction/guided-practice#:~:text=Guided%20Practice%2C%20also%20known%20as%20they%20execute%20each%20step%20correctly>
- Principles of instruction - independent practice . Principles of Instruction - Independent Practice. (n.d.-a). <https://www.aisnsw.edu.au/teachers-and-staff/teaching-and-learning/literacy-and-numeracy/foundations-of-effective-instruction/principles-of-instruction/independent-practice>
- Pura H. F. & Galicia L. S. (2022). Understanding the Teachers' Lived Experience in Teaching Technology and Livelihood Education (TLE) Using Modular Distance Learning in Now Normal. www.ijmra.in. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Challenges+by+tle+teachers+during+pandemic&btnG=#d=gs_qa&bs&t=1665986143909&u=%23p%3DAUVYcKyARmIJ
- Ramel M. R. B. (2020). Students' readiness for online and distance education at the Nueva Vizcaya State University. *International Journal* 6(1) 51-87.
- Rasmitadila R. Aliyyah R. R. Rachmadtullah R. Samsudin A. Syaodih E. Nurtanto M. & Tambunan A. R. S. (2020). The Perceptions of Primary School Teachers of Online Learning during the COVID-19 Pandemic Period: A Case Study in Indonesia. *Journal of Ethnic and Cultural Studies* 7(2) 90. <https://doi.org/10.29333/ejecs/388>
- Riconalla P. G. Quiñanola K. K. Devila J. Zozobrado J. Estoque R. M. Capito N. ... & Minyamin A. (2022). The Lived Experiences Aged Instructors in Online Classes: Their Struggles and Coping Mechanisms. *Psychology and Education: A Multidisciplinary Journal* 3(1) 1-11. doi: 10.5281/zenodo.6810776
- Rivera R. (2019). Effects of Using Modules in the Performance of Grade 7 Technology and Livelihood Education (TLE) Students in Jose Lopez Manzano National High School in Tuy Batangas. *Ascendens Asia Journal of Multidisciplinary Research Abstracts* 3(2D).
- Rosales R.J. & Pagsuyoin J.C. (2021) *Journal of Public Health* Volume 44 Issue 3 Pages e463–e464

- Sintema E. J. (2020). Effect of COVID-19 on the performance of grade 12 students: Implications for STEM education. EURASIA Journal of Mathematics Science and Technology Education 16(7).<https://doi.org/10.29333/ejmste/7893>
- Skinner's theories. RSS. (2018). <https://www.structural-learning.com/post/skinners-theories#:~:text=The%20Behavioral%20Psychologist%20B.%20F.%20Skinner's%20the%20human%20behavior%20conditioning.>
- Steele J. & Holbeck R. (2018). Five Elements that Impact Quality Feedback in the Online Asynchronous Classroom. Journal of Educators Online 15(3). <https://doi.org/10.9743/jeo.2018.15.3.10>
- Suhendi A. (2018). Constructivist learning theory: The contribution to foreign language learning and teaching. KnE Social Sciences 87-95. DOI: 10.18502/kss.v3i4.1921
- Tayfun (2021) The Problems Faced by Teachers in Turkey During the COVID-19 Pandemic and Their Opinions. Volume 17 Number 1 2021 <https://files.eric.ed.gov/fulltext/EJ1286522.pdf>
- TOSUN N. MIHCI C. & BAYZAN Ş. (2021). Challenges encountered by in-service K12 teachers at the beginning of the covid-19 pandemic period: The case of Turkey. Participatory Educational Research. From <http://dx.doi.org/10.17275/per.21.95.8.4>
- Villegas C. H. (2022). Technology and Livelihood Education Teachers' Competence and Work Skills and Work Attitudes of Public High School Students. European Online Journal of Natural and Social Sciences 11(1) pp-86.
- Yao J. Rao J. & Xiong C. (2020). What Role Should Teachers Play in Online Teaching during the COVID-19 Pandemic? Evidence from China. Science Insights Education Frontiers 5(2) 517–524. <https://doi.org/10.15354/sief.20.ar035>
- Yunos J. M. Sern L. C. Hamdam N. H. & MunastiwiE. (2020). TVET teacher educator's criteria and roles for sustainable TVET teacher education program.