

**TWISTS AND TURNS IN PEDAGOGIES IN A CATHOLIC UNIVERSITY: BASIS  
FOR PEDAGOGICAL FRAMEWORK FOR E-IFLEX LEARNING**

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**ABSTRACT**

In the educational landscape, pedagogy is considered as one of the pillars of education for it shapes the teaching and learning process, ensuring that learners acquire the knowledge, skills, and values necessary for their personal and professional development. The study aimed to assess the utilization of various pedagogies, specifically instructional strategies as a basis in the development of a pedagogical framework. The study utilized a mixed method employing both quantitative and qualitative approaches among two hundred twenty-seven (227) respondents. The findings revealed that teachers practiced the following instructional strategies. However, there were pedagogical practices that were often practiced such as collaborative, reflective, and inquiry-based methods. There was a huge discrepancy as regards the instructional strategies utilized during limited face-to-face learning up to the present. There were strategies that were added, retained, and some were not applicable in the now normal. Teachers' pedagogical practices have a significant difference along the personal profile such as sex, department, field/ specialization, and number of years in teaching. Moreover, teachers' pedagogical practices have a significant difference along academic profile such as number of trainings attended related to instructional pedagogy, type of school from which bachelor's degree was obtained, subject taught, and type of education.

Lastly, it was revealed that teachers carefully prepared their instructions during the flexible learning through (1) full compliance to the curriculum, (2) instructional planning (3) Identification of learning objectives and learning outcomes, and (4) students' compliance to the class requirements and performance tasks. However, there were major shifts made by teachers to adopt in the flexible learning such as (1) creation of recorded video lectures, (2) technology integration in classroom, (3) utilization of differentiated teaching strategies, and (4) effectively reteaching the lesson. Learners have positive experiences with teachers' instructional strategies such as (1) achieving academic success, (2) providing feedback for class performance, (3) application

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of knowledge and skills and (4) building confidence through communication. However, learners have negative experiences with teachers' instructional strategies such as: (1) intermittent internet connectivity, (2) lack of consideration, (3) non-completion of requirements, and (4) overwhelming workload. Lastly, there were best instructional strategies utilized by teachers such as (1) active learning, (2) collaborative learning, and (3) technology integration.

**Keyword:** *Pedagogical Practices, Catholic University, Flexible Learning, Teachers, Students*

## INTRODUCTION

Teachers play a pivotal role in the educational process. Hence, teachers establish the tone and light in the teaching and learning process by employing a variety of pedagogies to promote active learning among learners. Thus, in order to achieve the intended targets and outcomes, implementers of pedagogies must carefully plan their instructions. In connection, pedagogy is crucial because it provides teachers with knowledge into the ideal procedures for a classroom environment. It enables them to comprehend how various learners learn in order to modify their lesson to meet these demands. Since the learners would find pedagogies engaging, this will enhance their teaching effectiveness in activating learners' knowledge and skills (Ali, Mondal & Das, 2018; Archambault, Leary, & Rice, 2022).

However, with the spread of COVID-19 which resulted to the closure of educational institutions worldwide (United Nations, 2020; UNESCO 2021). This closure has spurred the development of online learning environments within these schools, ensuring that learning is not disrupted. The coronavirus pandemic put the centers' abilities to deal with a crisis that required educational modification to cope with the challenges (Reimers, 2022; Courtney, Miller, & Gisondo, 2022). Moreover, to maintain the continuity of learning and to intensely promote learners' acquisition for the optimum of their abilities in the new normal of education, 21st century education is necessary. Thus, for both instructors and learners to succeed, they must be equipped with adequate information, skills, and competencies (Butola, 2021; De los Reyes, Blannin, Cahrssen, & Mahat, 2022). Hence, this can only be achieved if teachers are able to give quality instruction while employing suitable pedagogies to accelerate learning in the face of ambiguity (O'Keefe, Rafferty, Gunder, & Vignare, 2020).

Pedagogy comes from the Italian word “*pedagogia*” which means the art and knowledge of teaching learners (Putri & Elihami, 2021). Hence, pedagogy is the center of the educational reform movement. It has been the beginning point for integrating modern concepts about learning and teaching, as well as the relevance of ideas to twenty-first-century educators (Compayré & Payne, 2015; Pham & Philip, 2021; Ginsburg & Megahed, 2021). A teaching strategy known as pedagogy involves teachers instructing learners both in theory and in practice. Pedagogy is influenced by educators' teaching philosophies and includes their knowledge of cultural differences and various learning styles. In order to consolidate earlier knowledge, it is crucial for students to create meaningful classroom relationships (Brown, Boda, Lemmi, & Monroe, 2019; Rippé, Weisfeld-Spolter, Yurova, & Kemp, 2021).

In the 21<sup>st</sup> century educational parlance, pedagogy plays a very critical role in the success of teaching and learning. However, literatures suggest that one of the main reasons why there is a decline of the quality of education being provided to the students is the misuse and abuse of pedagogical techniques, especially on the utilization of different instructional strategies of teachers (Sato & Loewen, 2019; Usanov & Qayumov, 2020). Furthermore, there is also a need to revisit teachers' use of pedagogies in their classes especially during the implementation of distance learning and flexible learning which is brought by the COVID-19 pandemic. There are issues that were found in literature that teachers did not provide responsive online learning strategies and techniques to their students because of some external and internal factors and issues (Yates, et al., 2021; Serdyukov, 2015; Terenko & Ogienko, 2020). Moreover, teachers' teaching quality has deteriorated because of inappropriate use of instructional techniques, methods, and procedures. Learners became passive recipients and partakers of knowledge, which resulted to low academic performance (Ezra, Cohen, Bronshtein, Gabbay, & Baruth, 2021; LaTour & Noel, 2021).

The University of Saint Louis, a higher education institution in Northern Luzon, already embraced the use of flexible learning since 2016 with the use of its Learning Management System. However, the full implementation took place last March 2020 due to the effect of the COVID-19. During its full implementation, students and teachers were exposed to flexible learning with the use of online learning as its main learning modality. With the gradual implementation of the full face-to-face learning, USL shifted to Expanded-Inclusive Flexible Learning (E-IFLEX). With the implementation of these

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learning modalities, it is important to assess the utilization of pedagogies, with emphasis on instructional strategies to ensure responsiveness of these to the needs of students. Hence, this study will be conducted to assess the use of different pedagogies since the implementation of flexible learning up to the present as a basis in the development of a pedagogical framework.

### Research Objectives

The study aimed to assess the utilization of various pedagogies specifically instructional strategies during the pre-pandemic up to the present as a basis in the development of a pedagogical framework. Specifically, it sought to answer the following questions:

1. What is the profile of the teachers along the following:
  - A. Personal Profile**
    - a. Sex
    - b. Age
    - c. Civil Status
    - d. Highest Educational Attainment
    - e. Department
    - f. Field/Specialization
    - g. Number of Years of Teaching
  - B. Academic Profile**
    - a. No. of trainings attended related to instructional pedagogy
    - b. Type of school from which the teacher obtained his/her bachelor's degree
    - c. Subjects previously taught
    - d. Type of education
2. What are the pedagogical practices of teachers during the pre-pandemic up to the present along the following:
  - a. Constructivist
  - b. Collaborative
  - c. Integrative
  - d. Reflective
  - e. Inquiry-Based Learning
3. Is there a significant difference on the pedagogical practices of the respondents when grouped according to their profile variables?
4. What are the experiences of students/ pupils in the utilization of pedagogies/ strategies during the pre-pandemic up to the present?

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5. What proposed pedagogical framework will be developed to improve the adoption of flexible learning in the now normal?

### Hypothesis

The hypothesis will be tested at .05 level:

- a. There is no significant difference on the pedagogical practices of respondents when grouped according to their profile variables.

### Significance of the Study

This study will be beneficial among USL teachers for successful delivery of flexible learning through appropriate utilization of instructional strategies. Thus, to let learners be engaged in a meaningful interaction with their Learning Management System (LMS) through varied and appropriate instructional strategies to optimize their learning.

Hence, the result of the study will help the teachers to deliver quality instruction in the now normal. Thus, as it serves as a basis for other institutions to implement a successful flexible learning. Moreover, to implement suitable programs for teachers that focus on instructional pedagogies for a purposeful teaching and learning experience. Thus, to develop a pedagogical framework which focuses on instructional strategies and techniques to be used by teachers in the delivery of E-IFLEX learning.

## Underpinning Theory

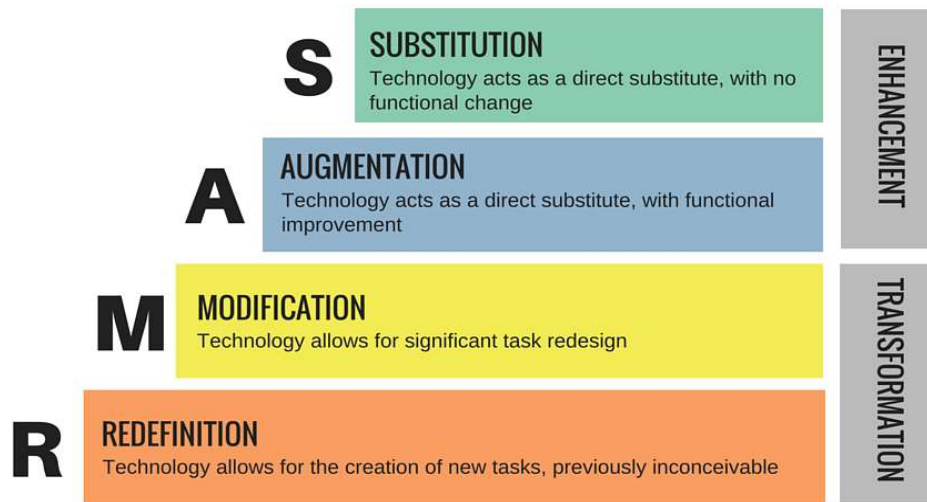


Figure 1. Peuntedura's SAMR Model (2010)

SAMR is a research-based model for facilitating technology integration. This paradigm can assist instructors in thinking thoroughly about their instructional practices and making important decisions regarding the digital tools they employ in their classrooms.

The model's design is a tool for instructors to monitor technology usage in their classrooms. SAMR stands for Substitution, Augmentation, Modification, and Redefinition. The levels of technology integration are represented by SAMR. The levels are also useful in carrying out different instructional activities. The SAMR model is illustrated by a vertical diagram. The model allows teachers to go from the bottom to the top as they move from lower to higher levels of technology integration. The SAMR model considers each technological application to be a new task. Substitution and Augmentation tasks are classified as "Enhancement" because they employ technology to replace or improve the tools currently present in the learning activity. The remaining tasks of Modification and Redefinition are included in the subgroup "Transformation" because they create learning possibilities that would be difficult to perform without technology (HamiltonRosenberg, & Akcaoglu, 2016; Hilton 2016). Thus, in order to have a successful delivery of a lesson, it is necessary that teaching and learning should

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be augmented through employing various pedagogical approaches such as: Constructivist, Collaborative, Integrative, Reflective, and Inquiry-based learning.

### Research Paradigm

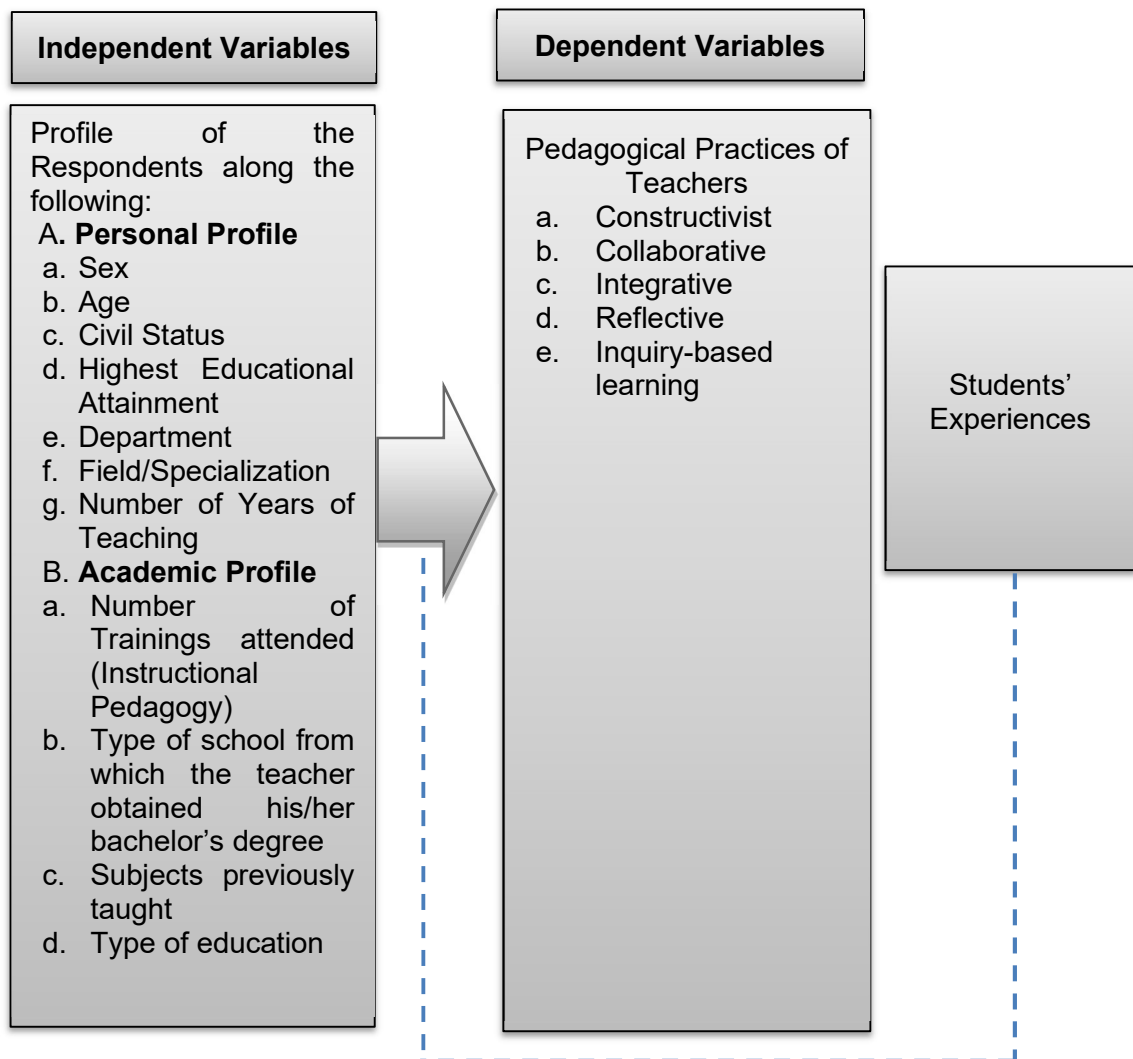


Figure 2. Research Paradigm of the Study

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The Figure 2 presents the research paradigm of the study. The paradigm makes use of the IV-DV Model. The independent variables consist of the profile of the respondents while the dependent variables involve the different pedagogical practices of teachers. Moreover, the figure also shows the different profile variables of teachers that affect the pedagogical practices of teachers. Thus, broken lines that connect between the independent variables and dependent variables serve as mediating factor to further consolidate the study.

## **METHODS**

### **Research Design**

The study utilized mixed methods of research employing both quantitative and qualitative approaches to assess the utilization of various pedagogies specifically instructional strategies during the pre-pandemic up to the present.

Descriptive method was utilized to describe the profile of teachers and their pedagogical practices. Thus, descriptive method was used for the quantitative part which will determine the different instructional strategies utilized by teachers since the implementation of flexible learning up to the present.

For the qualitative method, the study utilized basic qualitative research by Merriam and Tisdell (2016) to document the different instructional strategies utilized by teachers and to describe the experiences of students/pupils in the implementation of instructional strategies during their flexible learning up to the present.

### **Locale of the Study**

The study was conducted in a private institution specifically at University of Saint Louis in Northern Philippines. There are eight (8) academic departments in the university: Elementary; Junior High School (JHS); Senior High School (SHS); School of Accountancy, Business, and Hospitality (SABH); School of Engineering, Architecture, and Information Technology Education (SEAITE); School of Education, Arts, and Sciences (SEAS); School of Health and Allied Sciences (SHAS); School of Graduate School and Continuing Professional Development (SGSCPD).



## Respondents of the Study

The respondents of the study were teachers across all departments, program chairs/ subject area coordinators, and students and pupils at University of Saint Louis in Northern Philippines. Hence, total enumeration was utilized among teachers as regards their pedagogical practices. Random sampling was utilized among students to get their experiences regarding the utilization of instructional strategies of their teachers during the implementation of flexible learning up to the present.

## Research Instrument

### *Checklist*

A checklist was used to gather the profile of the respondents along the following: sex, age, civil status, highest educational attainment, department, field/specialization, number of years of teaching, and number of trainings attended; type of school from which the teacher obtained his/her bachelor's degree; subjects previously taught; and type of education.

### *Questionnaire*

A validated questionnaire was used to determine the pedagogical practices of teachers. The said questionnaire consists of 30 items and divided into five major dimensions which include the following: Constructivist method (6 items), Collaborative method (6 items); Integrative method (6 items); Reflective method (6 items); and Inquiry-based learning method (6 items).

The said tool had undergone content validation by three experts and reliability test to ten (10) teachers prior to its administration.

### *Focus Group Discussion*

Focus-group discussion (FGD) was conducted among selected teachers to document the different instructional strategies utilized by teacher during the implementation of flexible learning and describe the students' / pupils' experiences in the implementation of instructional strategies during their flexible learning. Due to the current situations brought about by the COVID-19 pandemic, health protocols have been ensured by the researcher. A set of questions was prepared by the researcher. These questions prompted the respondents to consider their own viewpoints on the phenomenon under investigation.

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### *Document Analysis*

Document Analysis was utilized to get the available data through the Learning Management System (LMS) of the university or syllabus utilized by teachers. Thus, consent form was made to ensure the confidentiality of the data given by the respondents.

### **Data Gathering Procedures**

The study followed a systematic process of data-gathering. Before the conduct of the study, the researcher sought an approval for the conduct of the study from the Vice-President for Academics. More so, letter of permission was given to the Dean of Graduate School, Research Director, Deans, and Principals. After seeking for approval, the researcher administered the questionnaire to the respondents via Google forms and face-to-face.

### **Ethical Consideration**

Ethical considerations were employed by the researcher. Informed consent was accomplished by the respondents to ensure the compliance to ethical standards. The data that were provided by the respondents were treated with utmost confidentiality and anonymity.

### **Quantitative Data Analysis**

The following statistical tools were used to analyze the data that were gathered:

Frequency and Percentage were used to describe the profile of the respondents as to the following: sex, age, civil status, highest educational attainment, department, field/specialization, number of years of teaching, and number of trainings attended, type of school from which the teacher obtained his/her bachelor's degree, subjects previously taught, and type of education.

Weighted Mean was used to determine the pedagogical practices of teachers using the following mean range and qualitative descriptions:

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Mean Range	Qualitative Description
4.50 - 5.00	Always
3.50 – 4.49	Often
2.50 – 3.49	Sometimes
1.50 – 2.49	Rarely
1.00 - 1.49	Never

Independent sample t-test and Analysis of Variance (ANOVA) were utilized to determine the significant difference of teachers' pedagogical practices when grouped according to their profile variables.

### Qualitative Data Analysis

The interview transcripts were analyzed following three major stages: open-coding, axial coding, and selective coding (Creswell et al., 2007). While reading the interview transcripts, open coding was done by literally underlining and highlighting significant statements and writing notes and comments on the margin. Initial codes were also identified based on the significant statements and marginal notes. Open coding was repeatedly done across all of the pages of the transcripts; interview transcripts had an average of thirty-three initial codes for the experiences of the informants. Axial coding was ensued by classifying and tabulating the identified initial codes, and similarity or identity of the meanings of the initial codes will be the basis for classification and tabulation. The initial categories were subjected to selective coding, the final stage of qualitative data analysis, whereby overlapping categories will be lumped together after a thorough analysis.

The number of categories was finalized using the CERES criteria for the determinations of categories (Ballena & Liwag, 2019): (1) Conceptual congruence, (2) Exclusivity, (3) Responsiveness, (4) Exhaustiveness, and (5) Sensitivity. Conceptual congruence of themes was observed when all of them belonged to the same conceptual level; in short parallelism is observed in the phraseology of themes. Second, exclusivity means that one identified theme should mutually exclude the others; thus, overlapping of themes was avoided. Third, responsiveness was maintained when the identified themes were the direct answers to the research problems or objectives of the research. Fourth, exhaustiveness was followed when the identified themes were enough to encompass all the relevant data contained in the transcripts. Fifth and last,

sensitivity was observed when the identified themes were reflective of the qualitative data; in short, they have strong and material support from the data.

## **DISCUSSIONS**

### **Pedagogical Practices of Teachers**

The study intended to determine the pedagogical practices of teachers at University Saint Louis in Northern Philippines. The findings revealed that constructivist method in teaching was always practiced by teachers. This implies that teachers create a learning environment where learners can construct their knowledge and understanding through active participation. The teacher encourages students to explore and discover new concepts and ideas through hands-on activities (Apat, 2022; Cooper, 2023). The teacher also provides guidance and support to help learners make connections between their prior knowledge and the new information they are learning (Archambault, Leary, & Rice, 2022). Constructivist method of teaching emphasizes the importance of student-centered learning and encourages learners to take ownership of their learning (Searles, 2022, Alam, 2023). Constructivism has been a very strong paradigm for describing both how information is created in the environment and how students learn. Constructivist teaching approaches are becoming increasingly common in teacher education programs, and they have shown great success in promoting student learning (Charania, Bakshani, Paltiwale, Kaur, & Nasrin, 2021). A constructivist teacher equips students with the resources they need to formulate and test their ideas, come to conclusions, and make inferences, as well as to pool and communicate their knowledge in a collaborative learning environment. These resources include problem-solving and inquiry-based learning activities (Arioder, Arioder, Quintana, & Dagamac, 2020). Constructivist educator states that rather than passively absorbing information, learners generate knowledge. People develop their own representations of the world and incorporate new information into their pre-existing knowledge as they encounter it and reflect on it (schemas) (Akpan & Beard, 2016; Brau, 2020). Constructivist teachers foster social and communication skills among students by fostering a collaborative and idea-sharing atmosphere in the classroom. Students must learn how to accurately explain their thoughts as well as how to effectively cooperate on tasks by participating in group tasks (Mohammed & Kinyó, 2020). Thus, In a constructivist learning environment, students are encouraged to reflect thoughtfully on their experiences, learn to analyze real-world problems, learn how to conduct investigations, improve social skills, develop collaborative learning

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and inquiry skills, develop communication skills, apply and integrate the content of various subjects, strengthen their learning strategies skills, and eventually come to a consensus (Arpentieva, Retnawati, Akhmetova, Azman, & Kassymova, 2021; Lam, Ng, Tse, Lu, & Wong, 2021).

Also, findings revealed that teachers often practiced collaborative methods in their teaching. This means that teachers frequently incorporate collaborative activities that allow them to share, connect, and brainstorm. A collaborative learning approach includes students cooperating on projects or learning tasks in a class size small enough to ensure everyone's participation. Students in the group may collaborate on a shared task or work independently on individual activities that contribute to a common final product. This is distinct from unstructured group work (England, Nagel, & Salter, 2020; Weinberger & Shonfeld, 2020). Teachers achieved the objectives of the topic when it is appropriately taught through effective strategies (Kastriti, Kalogiannakis, Psycharis, & Vavougiou, 2022). Collaborative teachers differ in that they invite students to set specific goals within the framework of what is being taught, provide options for activities that capture different student interests and goals, and encourage students to assess what they learn (Wang, Charoenmuang, Knobloch, & Tormoehlen, 2020; Houghton, Soles, Vogelsang, Irvine, Prince, Prince, & Paskevicius, 2022). Educational experiences that are active, social, contextual, engaging, and student-owned lead to deeper learning (Tiradentes Souto, Ramos Fragelli, & Henrique Veneziano, 2020; Oleksandr, 2022). Active collaboration is particularly important for creating a growth-based learning environment and for increasing student learning progress. Teachers who work together and learn from each other are more successful in improving student outcomes than those who work alone. Collaboration enhances the way your team works together and solves problems. This results in more innovation, more efficient procedures, more success, and better communication. You may assist each other achieve your goals by listening to and learning from team members (Moreno-Guerrero, Rondon Garcia, Martinez Heredia & Rodríguez-García, 2020).

Results revealed that teachers always practice integrative methods in their teaching. This means that teachers constantly practiced integrative teaching to provide students with comprehensive and inclusive learning experience to cater to the diverse needs and abilities of learners. It creates a holistic experience that connects various aspects of knowledge, skills, and discipline. An integrative teacher is characterized to be creative, adaptable, and critical in

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reasoning (Bati, 2023; Aparicio-Herguedas, Fraile-Aranda, & Rodríguez-Medina, 2023). Without proper integration, learners will not be able to build the competency in skills that are necessary for enduring success. Integrated pedagogies provide learners a better knowledge of the course material and how to apply what they've learned in the classroom in real-world situations. This, in turn, helps students prepare for their future education, careers, and lives in general. The main characteristics of integrated learning include creativity, flexibility, critical thinking, and teamwork. The learning technique allows a wide range of learning styles, theories, and different intelligences (Anamova & Khvesyuk, 2020; Rizhniak, Pasichnyk, Zavitrenko, Akbash, & Zavitrenko, 2021; Khan & Soomro, 2022). Integrative learning is a method in which the learner uses existing information and experiences to supplement new knowledge and experiences. This allows learners to draw on existing talents and apply them to new, more difficult situations. Integrative learning develops the capacity to integrate concepts and experiences across the curriculum and co-curriculum in order to synthesis and transfer learning to new circumstances on and off campus (Ismailova, Khimmataliev, Khashimova, Baybaeva, & Ergashev, 2020; Tangatov, 2022). Students must have the intellectual flexibility and agility to incorporate many sources of knowledge into their decision-making and understanding of the world in order to flourish in various, changing situations (Yuldasheva, 2021; Muhammadaliyevich, 2022).

It was shown that teachers often practiced reflective methods in their teaching. This implies that teachers frequently employ reflective teaching among learners. Thus, it encourages learners to understand their own learning process, reflect on their experiences, and identify areas for improvement. Teachers help learners to become more self-aware and to have a deeper understanding of the subject matter. Reflective learning often entails reviewing something from the past, such as an idea or experience, and critically analyzing it. Reflection will assist students in learning from their prior experiences and transforming surface learning into deep learning by examining both good and failed parts of an experience (Körkkö, 2021; Medic, 2022). Reflective activities are frequently regarded as the link between theory and action. This sort of exercise is particularly beneficial in situations when students are asked to reflect on previous learning, analyze real-world consequences, and use this reflection to influence future actions and activities. Journaling, getting input from pupils and colleagues, and recording classes are a few examples of reflective teaching. These techniques can support a teacher's reflection on how the lesson went, what worked or didn't, and what changes could be done to enhance student results

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(Bawaneh, A. K., Moumene, & Aldalalah, 2020; Erdemir, & Yeşilçınar, 2021). Reflective learning is an essential process for learners because it allows them to gain a deeper understanding of their own learning process and experiences (Colomer, Serra, Cañabate, & Bubnys, 2020; Veine, Anderson, Andersen, Espenes, Søyland, Wallin, & Reams, 2020). By reflecting on their learning, learners can identify what works best for them, what challenges they face, and what strategies they can use to improve their learning. Reflective learning also promotes critical thinking, self-awareness, and self-evaluation, which are important skills for lifelong learning and personal growth (Lyz, Lyz, Neshchadim, & Kompaniets, 2020; Dattathreya, 2022). Reflective learning supports learners in developing metacognitive skills, such as planning, monitoring, and evaluating their own learning, which can help them become more effective and efficient learners (Jang, 2022). Hence, reflective learning is an important tool for learners to enhance their learning experience and achieve their educational goals (Boholano, Sanchez, Balo, & Navarro, 2022; Zain, Sailin, & Mahmor, 2022).

Lastly, it was revealed that teachers often practiced inquiry-based methods in their teaching. This means that teachers frequently utilized inquiry-based teaching among learners. Thus, teachers encourage their students to ask questions and investigate topics through independent exploration and discovery. It allows students to develop critical thinking and problem-solving skills. An inquisitive teacher teaches and learns with purpose and depth. In an Inquisitive classroom, a lesson begins with curiosity, goes from surface to deeper learning, and culminates with evidence of learning (Gholam, 2019; Aksa, 2022). Inquiry is an important condition for language learning and plays a vital role in learner engagement. Inquiry prepares the brain for learning and makes future learning more fun and rewarding (Jacobs, 2022). Inquiry-based learning is important among learners because it promotes critical thinking, problem-solving, and a deeper understanding of the subject matter (Chengay, 2023; Kousloglou, Petridou, Molohidis, & Hatzikraniotis, 2023; Abdul Rabu, MohamadAwwad, Ismail, & Yeen, 2023). It encourages learners to ask questions, gather information, analyze data, and draw conclusions. This approach to learning also fosters creativity, collaboration, and communication skills (Parsaiyan & Gholami, 2023; DeCoito & Briona, 2023). It helps learners become active participants in their own learning process, rather than passive recipients of information. By engaging in inquiry-based learning, learners develop skills that are important for success in both academic and real-world settings (Agbi, Sengsri, Teeraputon, & Natakatoog, 2022; Farrow, Schneider Kavanagh, & Samudra, 2022). Inquiry-based learning is a sort of active learning in which students are encouraged to

ask questions, undertake research, and experiment with new concepts. This kind of instruction assists students in developing critical thinking, problem-solving, and research abilities. Inquiry-based learning allows students to take an active role in their studies at a high level while also teaching skills that will help them achieve their long-term goals. It changes the emphasis from the teacher's words and lectures to an approach that piques student interest, which is critical to the objective of meaningful learning (Ruzaman, 2020; Wale & Bishaw, 2020; Karimova, 2022). Inquiry-based learning is a type of learning that engages students by allowing them to make real-world connections via investigation and high-level questions. It is a learning strategy that encourages pupils to participate in problem-solving and experiential learning. Inquiry-based teaching and learning is a way of assisting students in developing their knowledge and understanding via investigation and discovery activities based on prior information. To reach conclusions, the inquiry approach necessitates higher-order thinking abilities and critical thinking (Singh,2020; Husni, 2020).

### **Documented Instructional Strategies of Teachers**

The study documented several instructional strategies during the limited face-to-face up to the present. It was shown that there was a huge discrepancy as regards the instructional strategies utilized. There were methods that were added, retained, and some were not applicable in the now normal especially that learners are in the full face-to-face learning. Thus, teachers need to shift their strategies just to meet their objectives and to achieve the desired competency for their learners (Núñez-Canal, de Obesso, & Pérez-Rivero, 2022; Ross, Pirraglia, Aquilina, & Zulla, 2022).

In connection, strategies that were retained, can be flexibly utilized for which can endure throughout time. On the other hand, there were strategies that can solely cater to a certain subject/topic. These strategies are relatively dependent on the teacher's objectives, subject and topic being taught, and the skill that teachers want to amplify and develop among learners. This implies that using appropriate strategies in teaching is crucial as it directly impacts student learning and engagement. Teachers who utilize effective strategies are better able to engage students and create a positive learning environment. This, in turn, helps students to develop a deeper understanding of the subject matter being taught (Archambault, Leary, & Rice, 2022; Salas-Pilco, Yang, & Zhang, 2022 Mundry & Hamimah, 2022).



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Appropriate teaching strategies also help to cater to different learning styles and abilities. By using a variety of strategies, teachers can ensure that all students are able to learn and participate in the classroom (Singh, Steele, & Singh, 2021; Rocque, 2022). Moreover, appropriate teaching strategies can help to improve student motivation and self-esteem. When students are engaged and feel successful in their learning, learners are more likely to be motivated to continue learning and develop a positive attitude towards education (Tran, 2019; Tus, 2020; Bassiri, Mazouak, Belaaouad, Jammoukh, & Mansouri, 2022). Using appropriate teaching strategies is essential for creating an effective and engaging learning environment. This can lead to improved student learning outcomes, increased motivation, and a positive attitude towards education (Martins & Gresse Von Wangenheim, 2022; Marini, Nafisah, Sekaringtyas, Safitri, Lestari, Suntari, & Iskandar, 2022).

Lastly, these methods had helped to sustain learners' engagement during the limited face to face despite the constraints. Letting learners be engaged in flexible teaching and learning has aided learners to be technology abreast and explore various resources available (Carroll, Faruque, Hewage, Bentotahewa, & Meace, 2023; Swartz, Valentine, & Jaftha, 2022). However, this has been so challenging for teachers since teachers need to double their time just to prepare their instructions and sustain learning despite the limitations and restrictions (Treceñe, 2022; Khan, Kambris, & Alfalahi, 2022). As such, these have been made possible due to teachers' flexibility and resiliency to embrace the now normal of teaching and learning and just to ensure that the learning environment is safe and conducive for learning (Amin, Nuriadi, Soepriyanti, & Thohir, 2022; Chatzipanagiotou & Katsarou, 2023).

### **Significant Difference on Teachers' Pedagogical Practices When Grouped by Personal Profile**

The study is intended to determine the significant difference on teachers' pedagogical practices when grouped by personal profile. It was revealed that there is a significant difference on teachers' pedagogical practices when grouped by sex along constructivist, collaborative, and integrative method. Female teachers more often practiced both constructivist and collaborative method than male teachers. Conversely, female teachers always practiced integrative method while male teachers often practiced integrative method. This is highly supported with the study of Ecevit & Kingir (2022) concluded that females were more dominant than males in terms of the teaching-learning approach. Female

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teachers adopted constructivist teaching-learning approach more than males. Moreover, female teachers are more creative in their teaching methods than male teachers, teach more empathy and employ more collaborative work than male teachers (Amzaleg & Masry-Herzallah, 2022). In contrary, male teachers use more multidisciplinary teaching than female teachers (Amzaleg & Masry-Herzallah, 2022).

it was revealed that there is a significant difference on teachers' pedagogical practices when grouped by department along constructivist method. It implies that basic education teachers always practiced constructivist method because the basic education curriculum content is designed to be more exploratory which lends itself to the constructivist teaching. Conversely, college and graduate school curriculum are more specialized and focused which require more structured and conventional approach to teaching. Basic education teachers are trained to use constructivist methods of teaching as part of their professional development. On the other hand, college and graduate schoolteachers are more focused on specialized contents. It was stated that constructivist teaching approaches are becoming increasingly common in teacher education programs, and they have shown great success in promoting student learning (Charania, Bakshani, Paltiwale, Kaur, & Nasrin, 2021). Moreover, a constructivist teacher equips students with the resources they need to formulate and test their ideas, come to conclusions, and make inferences, as well as to pool and communicate their knowledge in a collaborative learning environment (Arioder, Arioder, Quintana, & Dagamac, 2020).

Findings revealed that there is a significant difference on teachers' pedagogical practices when grouped by department along collaborative method. This implies that basic education and graduate schoolteachers always practiced collaborative method because basic education and graduate school classrooms tend to be smaller and intimate, which can make collaborative teaching methods easier to implement. In college classrooms, collaborative teaching method maybe difficult to manage due to the larger number of students. A collaborative learning approach includes students cooperating on projects or learning tasks in a class size small enough to ensure everyone's participation. Students in the group may collaborate on a shared task or work independently on individual activities that contribute to a common final product. This is distinct from unstructured group work (England, Nagel, & Salter, 2020; Weinberger & Shonfeld, 2020)

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Along integrative method, a significant difference was found on teachers' pedagogical practices when grouped by department. This basic education and graduate schoolteachers are more focused on developing students' foundational knowledge and critical thinking skills. Integrative teaching methods, which incorporate different subjects and perspectives, can help students make connections between different concepts and develop a more comprehensive understanding of the topic. College teachers, on the other hand, may be more focused on preparing students for specific careers or advanced study in a particular field. Thus, they may prioritize more specialized knowledge and skills over a broader integrated approach. Integrative learning is the process of connecting ideas and experiences so that knowledge and skills may be applied to new and complicated problems or situations. Students must have the intellectual flexibility and agility to incorporate many sources of knowledge into their decision-making and understanding of the world in order to flourish in various, changing situations (Yuldasheva, 2021; Muhammadaliyevich, 2022). Integrative learning develops the capacity to integrate concepts and experiences across the curriculum and co-curriculum in order to synthesis and transfer learning to new circumstances on and off campus (Ismailova, Khimmataliev. Khashimova,. Baybaeva, & Ergashev, 2020; Tangatov, 2022). Integrated pedagogies provide pupils a better knowledge of the course material and how to apply what they've learned in the classroom in real-world situations. This, in turn, helps students prepare for their future education, careers, and lives in general. The main characteristics of integrated learning include creativity, flexibility, critical thinking, and teamwork. The learning technique allows a wide range of learning styles, theories, and different intelligences (Anamova & Khvesyuk, 2020; Rizhniak, Pasichnyk, Zavitrenko, Akbash, & Zavitrenko, 2021; Khan & Soomro, 2022).

Findings also revealed that there is a significant difference on teachers' pedagogical practices when grouped by department along reflective method. This implies that reflective method of teaching is often seen as the most practiced method in the education field for it continually improves teaching and learning process. On the other hand, accountancy, business, and hospitality management teachers give emphasis on technical knowledge and skills rather than developing reflective practice. Reflective learning often entails reviewing something from the past, such as an idea or experience, and critically analyzing it. Reflection will assist students in learning from their prior experiences and transforming surface learning into deep learning by examining both good and failed parts of an experience (Körkkö, 2021; Medic,2022). Reflective activities are

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frequently regarded as the link between theory and action. This sort of exercise is particularly beneficial in situations when students are asked to reflect on previous learning, analyze real-world consequences, and use this reflection to influence future actions and activities. Journaling, getting input from pupils and colleagues, and recording classes are a few examples of reflective teaching. These techniques can support a teacher's reflection on how the lesson went, what worked or didn't, and what changes could be done to enhance student results (Bawaneh, A. K., Moumene, & Aldalalah, 2020; Erdemir, & Yeşilçınar, 2021).

Results shown that there is a significant difference on teachers' pedagogical practices when grouped by department along inquiry-based method. This implies that teachers in basic education, allied health, and graduate school employ active learning, hands-on activities, and research. However, this depends on the nature of the subject being taught. Inquiry-based learning is a type of learning that engages students by allowing them to make real-world connections via investigation and high-level questions. It is a learning strategy that encourages pupils to participate in problem-solving and experiential learning. Inquiry-based teaching and learning is a way of assisting students in developing their knowledge and understanding via investigation and discovery activities based on prior information. To reach conclusions, the inquiry approach necessitates higher-order thinking abilities and critical thinking (Singh,2020; Husni, 2020).

It was revealed that there is a significant difference on teacher's pedagogical practices when grouped by field/specialization along constructivist method. It implies that teacher education and information technology teachers may practice constructivist teaching more frequently than other disciplines that their subject matter and pedagogy lend themselves to this approach. Teacher education focuses on preparing future educators to teach effectively, which requires them to understand how students learn and how to create engaging and meaningful learning experiences. Information technology is a dynamic and rapidly evolving field that requires students to keep up with new technologies, solve complex problems, and collaborate with others. Therefore, constructivist teaching can help students develop the skills and mindset needed to succeed in these areas. On the other hand, other fields may have more content-driven curricula that emphasize the acquisition of knowledge and skills that are essential for their respective fields. These disciplines may also have more professional standards that require students to demonstrate mastery of specific competencies. While constructivist teaching can still be effective in these areas, it

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may require more careful planning and adaptation to the content and context of the subject matter. This is highly supported with the study of Suhendi,, Purwarno, & Chairani, (2021) stated that constructivist learning is important in any field or specialization as it emphasizes the learner's active participation in constructing their own knowledge and understanding. Instead of passively receiving information from a teacher or a textbook, learners are encouraged to explore, experiment, and make connections between their prior knowledge and the new information. This approach fosters critical thinking, problem-solving skills, and creativity. Moreover, constructivist teaching approaches are becoming increasingly common in teacher education programs, and they have shown great success in promoting student learning (Charania, Bakshani, Paltiwale, Kaur, & Nasrin, 2021). However, the study of Moh'd, Uwamahoro, Joachim, & Orodho, (2021) concluded that teachers' specialization showed no significant differences in instructional practices. Same result was also revealed that instructional practices of teachers have no significant difference along specialization (Cabual, 2021).

Along collaborative method, a significant difference was revealed on teacher's pedagogical practices when grouped by field/specialization. This implies that teacher education teachers may practice collaborative teaching methods more frequently because collaboration and teamwork are essential skills for future educators to model and teach their students. Teacher education courses often emphasize the importance of collaboration, and teacher education teachers may have more experience and training in collaborative teaching methods. Other fields may also value collaboration, but it may not be as central to their curriculum or training. This is highly supported with the study of Haugland, Rosenberg, & Aasekjær (2022) that collaborative learning is significantly essential in many fields and specializations because it allows individuals to share their knowledge, skills, and experiences with each other. Collaborative learning can expose individuals to diverse perspectives and ideas, leading to a more well-rounded education and a better understanding of the world around us (Kalmar, Aarts, Bosman, Ford, de Kluijver, Beets, & van der Sanden, 2022)

Findings revealed that there is significant difference on teacher's pedagogical practices when grouped by field/specialization along integrative method. This implies that teacher education, social science and humanities, and information technology are typically interdisciplinary fields that require students to integrate different concepts, theories, and methods. Integrative teaching methods

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can help students connect different ideas and apply them to real-world situations, which is essential for these fields. On the other hand, other fields may have more specialized and technical knowledge, which may not require as much integration. This is highly supported with the study of Achugar & Tardio (2023) states that integrative learning is significantly important in any specialization or field because it helps individuals develop a more holistic understanding of their area of expertise. It involves combining knowledge, skills, and experiences from various disciplines or areas of study to solve complex problems and make informed decisions. Integrative learning is an essential aspect of any specialization or field, as it enables individuals to become more well-rounded and effective professionals (Akib, Imran, Mahtari, Mahmud, Prawiyogy, Supriatna, & Ikhsan, 2020).

It was revealed that there is a significant difference on teacher's pedagogical practices when grouped by field/specialization along reflective method. It implies that reflective method of teaching emphasizes self-reflection and critical analysis of one's experiences for which learners can meaningfully relate. Thus, this is more relevant to teacher education, social science, and humanities, where the focus is on understanding human behavior, society, and culture. On the other hand, other fields are more technical and practical subjects that require a different set of skills and knowledge. These subjects require teachers to focus more on the application of theories and concepts, rather than self-reflection. The reflective method may not be as relevant in these subjects, and other teaching methods may be more effective. Hence, it states that reflective method of teaching is significantly important in any specialization or field because it allows both educators and learners identify areas of improvement and make necessary adjustments to enhance student learning outcomes. Reflective teaching also helps instructors to develop a deeper understanding of their students' learning styles, needs, and abilities, which enables them to tailor their teaching methods accordingly (Gracia,., Rodríguez, & Pedrajas, 2019; Colomer, Serra, Cañabate, & Bubnys, 2020; Al Adawi & Al Ajmi, 2023).

Along inquiry-based method, a significant difference was found on teacher's pedagogical practices when grouped by field/specialization. It implies that the nature of the content taught in teacher education may lend itself more easily to inquiry-based teaching. Teacher education courses often focus on pedagogy and methods of teaching, which are inherently more open-ended and exploratory than more technical or specialized fields. This is highly supported with the study of Attard, Berger, & Mackenzie, (2021) stated that inquiry-based

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method of teaching is significantly beneficial because it can be tailored to any subject or content area. It is adaptable to different learning styles and can be used in a variety of settings, from conventional classrooms to online learning environments. Inquiry-based method of teaching is important because it promotes lifelong learning and helps students become critical thinkers and problem solvers, which are valuable skills in any specialization or field (Smagorinsky, 2019; Laursen & Rasmussen, 2019). Findings revealed that there is a significant difference on teacher's pedagogical practices when grouped by number of years in teaching along constructivist method and inquiry-based method. It implies that teachers who taught less than a year and more than 4 to 10 years always practiced constructivist method than teachers who taught 1 to 3 years could be due to the level of experience and training. New teachers may not have enough experience or exposure to various teaching methods and may rely on conventional methods they learned in their teacher preparation programs. On the other hand, seasoned teachers may have had more opportunities for professional development, allowing them to explore and adopt constructivist methods in their teaching practices. Another explanation could be the influence of school culture and leadership. Schools that promote constructivist approaches to teaching and learning may attract and retain teachers who are more inclined to use such methods. In contrast, schools that prioritize traditional teaching methods may discourage or limit the use of constructivist approaches, leading to fewer teachers using them. This is highly supported with the study of Shah (2019) constructivist method is significantly important regardless of the number of years in teaching because it is a student-centered approach that emphasizes the active participation of learners in the learning process. It encourages students to construct their own understanding of concepts and ideas by engaging in hands-on activities, problem-solving, and critical thinking. This method is particularly effective in promoting deeper learning and long-term retention of information. The constructivist approach helps teachers create a supportive learning environment where students feel valued and encouraged to take risks and explore their own ideas. Regardless of their years of experience, teachers who use the constructivist method can help their students develop essential skills and knowledge needed to succeed in today's complex and dynamic world (Dziubaniuk & Nyholm, 2021; Suhendi, Purwarno, & Chairani, 2021).

Along inquiry-based method, a significant difference was found on teacher's pedagogical practices when grouped by number of years in teaching. It implies that teachers who are newer to the profession are more likely to be trained in and encouraged to use inquiry-based methods, as this approach is

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becoming increasingly popular in education. Thus, teachers who have been teaching for a longer period of time may have developed their own preferred teaching methods and may be less likely to try new approaches. This is highly supported with the study of Onyema, Ogechukwu, Anthonia, & Deborah (2019) stated that inquiry-based method is important regardless of the number of years in teaching because it promotes active learning and critical thinking. It encourages students to ask questions, investigate, and analyze information, rather than just memorizing facts. This approach allows students to develop a deeper understanding of the subject matter and helps them to retain knowledge better. Furthermore, inquiry-based learning prepares students for real-world problem-solving and fosters creativity and curiosity, enabling students to become independent learners. For teachers, using an inquiry-based approach provides a more engaging and enjoyable teaching experience, as they can facilitate learning rather than just delivering information (Swendseid, 2022; Sachyani, Waxman., Sadeh, Herman, Levi Ferber, Yaacobi, & Zion, 2023).

Lastly, there is no significant difference on teachers' pedagogical practices when grouped by age, civil status, and highest educational attainment. This implies that teachers still practiced the following methods such as constructivist, collaborative, integrative, reflective, and inquiry-based method regardless of age, civil status, and highest educational attainment. States that the following personal profile has no significant difference on their instructional practices (Pandya, Patterson, & Cho, 2022; Mohamed Abobaker, Sulaiman Alamri, Alshaery, & M Hamdan-Mansour, 2023). Meanwhile, there is no significant difference on teachers' pedagogical practices when grouped by sex along reflective method and inquiry-based method. This implies that teachers still practiced reflective and inquiry-based method regardless of sex (Lindner, Alnahdi, Wahl, & Schwab, 2019; de la Rama, Sabases, Antonion, Ricohermoso, Torres, Devanadera, & Alieto, 2020)

### **Significant Difference on Teachers' Pedagogical Practices When Grouped by Academic Profile**

The study is intended to determine the significant difference on teachers' pedagogical practices when grouped by academic profile. It can be gleaned that there is a significant difference on teachers' pedagogical practices when grouped by number of trainings attended related to instructional pedagogy along constructivist method. This implies that teachers who attended six (6) to ten (10) trainings may have found the constructivist method to be the most effective



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teaching approach and therefore, teachers consistently applied it. Teachers who attended less than five (5) trainings may not have had enough exposure to the constructivist method to fully understand and implement it, while teachers who attended more than eleven (11) to twenty-one (21) trainings may have been exposed to a variety of teaching approaches and may not have focused specifically on constructivist method. Berry, Merkel, & Uerkwitz, (2023) stated that attending trainings and workshops found to be significant in helping teachers to learn different approaches to teaching. Training of pedagogues for new knowledge and competences, innovative-interactive technologies and modern trends in the field, serving to effectively solve professional and pedagogical tasks, is gaining importance for effective teaching and learning experience (Ishbaeva, 2023; Casanova, Huet, & Garcia, 2023).

Findings revealed that there is a significant difference on teachers' pedagogical practices when grouped by type of school from which bachelor's degree was obtained along constructivist method. Teachers who obtained their bachelor's degree in State Universities and Colleges/Local Universities and Colleges (SUCs/LUCs) and Private Higher Institutions always practiced constructivist method in teaching while Catholic Higher Institutions often practiced constructivist method. This implies that the teaching approach and methods used by teachers depend on various factors, such as the curriculum, school policies, and the teacher's personal teaching philosophy. Many Catholic schools and universities have also embraced constructivist teaching methods and integrate them into their curriculum. It is essential to recognize that there is no one-size-fits-all approach to teaching, and teachers should be open to adapting their methods to suit their students' needs and their educational institution's values and goals. Hence, Mifsud (2023) stated teachers' art of teaching depends on their educational philosophy, school's policies, and the curriculum. Thus, this is highly supported with the study of Choi & Poudel, (2023) concluded that school's policies and curriculum should be relevant and purposeful. More so, curriculum is crucial because it provides structure and direction and ensures consistency to ensure that learners receive a quality education that prepares them for the future (Elvey & Burke, 2023).

It was shown that there is a significant difference on teachers' pedagogical practices when grouped by subject previously taught along constructivist, collaborative, integrative, reflective, and inquiry-based method. It implies that this depends on the curriculum standards whether it may explicitly encourage or require the use of constructivist methods in certain subjects or at

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certain educational levels. Dziubaniuk & Nyholm, (2021) stated that sustainability in teaching depends on curriculum and the pedagogy utilized. The study of Ismajli & Krasniqi, (2022) concluded the constructivist approach can also be used in crafting curriculum. Thus, teaching method(s) depends on educational philosophy, classroom demographic, and subject taught (Kayii, & Akpomi, 2022).

Along collaborative method, a significant difference was found on teachers' pedagogical practices when grouped by subject previously taught. This implies that the nature of subject matter is an indicator to let teachers practice collaborative methods which may require hands-on activities and collaboration. On the other hand, teachers primarily focus on the content that will highly benefit learners' field since these subjects are highly specialized and may not always require collaboration. Hsiao, Chen, Chen, & Lin, (2022) stated that learners collaborate and mutually generate new information that goes beyond the learning when they actively participate to hands-on activities and interactive lectures for a dynamic learning experience. Another impact is on the experience of teamwork among students. Teamwork is one of the primary personal skills that are developed from collaborative learning and deemed of high value for future employment. Social interaction/cohesion is facilitated by students working in groups and benefits the active learning experience (Cardona, Buan, & Inutan, 2022; Li, Krause, McLendon, & Jo, 2023).

Results revealed that there is a significant difference on teachers' pedagogical practices when grouped by subject previously taught along integrative method. It implies that teachers may use integrative methods in Language and Literature, Music, Arts, P.E., and Health, Economics and Livelihood Education, Christian Formation Education, Social Science Discipline and General Education, Information Communications Technology, Psychology, and Hospitality Management because these subjects often involve multiple perspectives, skills, and knowledge areas. In contrast, Mathematics, Allied Health Sciences, Business and Accounting, Professional Education, Research Discipline, Law, Engineering and Applied Sciences, and Architecture may have more specialized and structured content that may require more focused and analytical approaches. However, this may vary depending on the specific curriculum, teaching methods, and goals of the subjects and teachers involved. Spikic, Van Passel, Deprez, & De Meester, (2022) stated that an integrated, multidisciplinary approach with more hands-on experience could improve the ability to teach an integrated course. Involving teachers in the design process of the curriculum is also beneficial to the realization of that curriculum in the

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classroom. Thus, students gained more educational benefits when teachers integrate learning (Cui, Zhao, & Zhang, 2022). Integrated approach helps to cultivate psychosocial and interpersonal skills, the Multidisciplinary education enables the learners to think critically, have practical attitude and ideas to select subjects. This paves way for opening up to various career opportunities, transcending barriers (Shukla, Joshi, Sujatha, Beena, & Kumar, 2022).

Along reflective method, a significant difference was revealed on teachers' pedagogical practices when grouped by subject previously taught. This implies that teachers who taught Language and Literature, Music, Arts, P.E., and Health, Economics and Livelihood Education, Mathematics, Allied Health Sciences, Christian Formation Education, Business and Accounting, Professional Education, Social Science Discipline and General Education, Research Discipline, Information Communications Technology, Law, Psychology, Engineering and Applied Sciences, and Hospitality Management may use reflective method because these subjects often involve personal experiences, emotions, and values, and require critical thinking and analysis. On the other hand, research discipline involves following a systematic and rigorous process of collecting and analyzing data to answer research questions or test hypotheses where empirical evidence and quantitative data are important. This may not always require a reflection method of teaching. Hence, Salih & Omar, (2022) stated that practicing reflection has become an indispensable requirement in academic institutions worldwide to raise educational standards and improve the quality of teaching and learning. This is why it needs to be incorporated in the discourse of teacher professional development to promote the professional experience of teachers by integrating theory with practice. Hence, reflective practices should be contextualized and integrated in instruction to improve learning that allows both teachers and learners to reflect actively and critically. Moreso, to promote reflective practice is part of teachers' training (Pineda, Villanueva, & Tolentino, 2022).

It was shown that along inquiry-based method, there is a significant difference on teachers' pedagogical practices when grouped by subject previously taught. This implies that teachers who taught Language and Literature, Music, Arts, P.E., and Health, Economics and Livelihood Education, Social Science Discipline and General Education, and Psychology practice inquiry-based learning because these subjects involve critical thinking, analysis, and interpretation. Inquiry-based learning allows students to explore and discover concepts and ideas, which is important in these subjects where students are

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required to develop their own interpretations and perspectives. On the other hand, subjects like Mathematics, Allied Health Sciences, Christian Formation Education, Business and Accounting, Professional Education, Research Discipline, Information Communications Technology, Law, Engineering and Applied Sciences, and Hospitality Management, and Architecture may require more structured, highly specialized, and content-focused, and therefore may not lend themselves as easily to inquiry-based learning. However, this does not mean that inquiry-based learning cannot be effective in these subjects as well. Kang (2022) stated that inquiry-based learning is a less teacher-directed step-by-step instruction, rather, a more student-centered way of learning, which encourages to use learners' own experiences. Inquiry based learning has been recognized as a salient pedagogical method not only enhancing students' interest and achievement but also providing students with a chance to discover how scientific knowledge has been constructed and developed. Students can learn and develop higher-order thinking skills consisting of problem-solving, inferring, estimating, predicting, generalizing, and creative thinking skills, so that they are prepared as lifelong learners and scientifically literate citizen armed with a comprehensive understanding (Li, Muñiz, Chun, Tai, Guerra, & York, 2022; Long, Gao, Yang, & Chen, 2022).

It can be gleaned that there is a significant difference on teachers' pedagogical practices when grouped by type of education along constructivist. This implies that teacher education graduates are more likely to practice the constructivist method because of their comprehensive training in teaching methods and pedagogy, which includes the constructivist approach. Non-education graduates with LET may have some knowledge of the constructivist approach but may not have the same level of understanding and training as teacher education graduates. Non-education graduates without LET may have limited knowledge of teaching methods and may not be familiar with the constructivist approach. Hence, constructivism has been a very strong paradigm for describing both how information is created in the environment and how students learn. Furthermore, constructivist teaching approaches are becoming increasingly common in teacher education programs, and they have shown great success in promoting student learning (Charania, Bakshani, Paltiwale, Kaur, & Nasrin, 2021; Ismajli, & Krasniqi, 2022).

Along collaborative method, there is a significant difference on teachers' pedagogical practices when grouped by type of education. This implies that teachers who are education graduates and non-education graduates with LET

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may be more likely to practice collaborative methods because they have received training and experience with this approach. Education programs often emphasize the importance of teamwork and collaboration in teaching. In contrast, non-education graduates who have not taken the LET may not have received enough training but still they often practiced it. It has been stated that collaborative learning in teacher education has grown rapidly throughout the 21st century. Furthermore, "education is seen as an important context for students to acquire collaborative skills". Teachers involved in the collaboration may adopt practices that are less teacher-driven, and instead, follow conventions that are increasingly more student-driven (Houghton, Soles, Vogelsang, Irvine, Prince, Prince, & Paskevicius, 2022). Teaching strategies geared multiple intelligence are important whether the teacher has a pedagogical background or an industry professional (non-education background) (Salcedo, 2022).

It was shown that along integrative method, there is a significant difference on teachers' pedagogical practices when grouped by type of education. It implies that teachers who are education graduates and non-education graduates with LET have undergone comprehensive training in teaching methodologies and educational theories. As a result, they have a better understanding of how to create effective lesson plans and incorporate various teaching strategies that cater to different learning styles in which these teachers are more likely to employ inquiry-based method as compared to non-education graduate without LET. Hence, Villabona, & Cenoz, (2022) stated that integration of content can be influenced by the specific content subjects, teachers' beliefs, practices. However, there are teachers who struggle in integration specifically with the use of technology in their teaching practice (Bice & Tang, 2022). Interdisciplinary learning equips with technological advancement in the increased roles and functions of the learning process in the area of teacher as adaptable, shows that teaching empowers the opinion and ideas that express unique ways in teaching and active learning relevant for student learners in the area of teacher as creative (Mallillin, 2022).

Findings revealed that along reflective method, there is a significant difference on teachers' pedagogical practices when grouped by type of education. This implies that teacher education programs often emphasize the importance of reflective practice as a key component of effective teaching. Graduates of these programs have been a formal training since pedagogy is part of teachers' curriculum. Non-education graduates without LET may have also developed reflective habits through their own experiences as learners or through

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other professional contexts. On the other hand, non-education graduates with LET may have received less training or exposure to reflective practice in their formal education that led these teachers not to apply reflective method. Hence, teacher education cultivates a good habit of reflective teaching (Yang, 2022). Thus, learners are more likely to develop a culture of reflection if they see their faculty reflecting regularly and benefiting from this work practice daily (Gathu, 2022).

Along inquiry-based method, there is a significant difference on teachers' pedagogical practices when grouped by type of education. This implies that teacher education graduates are trained and equipped with the necessary knowledge and skills to implement inquiry-based teaching methods. Teachers have undergone a rigorous training program that includes teaching strategies, classroom management techniques, and pedagogical theories that emphasize the importance of inquiry-based learning. Teachers also have a deeper understanding of the educational system and the student's learning process, which enables them to design lessons that cater to different learning styles and abilities. On the other hand, non-education graduates with LET and non-education graduates without LET may have a basic understanding of teaching methodologies, but they do not have the same level of training and expertise as teacher education graduates. Zion, Schwartz, Rimerman-Shmueli, & Adler, (2020) stated that identifying teachers' understanding of inquiry-based teaching is the first step towards guiding appropriate teachers' professional development programs, that emphasize improving teachers' knowledge and attitudes towards an inquiry-based teaching method. This is to ensure students achieve meaningful learning with high levels of inquiry. However, previous studies indicate that teachers who lack knowledge and skills about inquiry-based teaching will reduce inquiry-based activities in a class and have a limitation in engaging students to learn, especially in a real-world situation (Soonjan & Kaewkhong, 2022)

Lastly, it can be gleaned that there is no significant difference on teachers' pedagogical practices when grouped by number of trainings attended related to instructional pedagogy along collaborative, integrative, reflective, and inquiry-based method. This implies that regardless of the number of trainings attended, teachers still practiced the different instructional methods such as collaborative, integrative, reflective, and inquiry-based method. Calavia, Blanco, Casas, & Dieste, (2023) concluded that training attended has no significant difference on the instructional practices of teachers. In contrary, it was found that number of trainings attended has a significant difference on the number of

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trainings attended (Lee & Chao, 2023). It was also revealed that there is no significant difference on teachers' pedagogical practices when grouped by type of school from which bachelor's degree was obtained along collaborative, integrative, reflective, and inquiry-based method. It implies that regardless of the type of school from which bachelor's degree was obtained, teachers still practiced the different instructional methods such as collaborative, integrative, reflective, and inquiry-based method. Merle, Cook, Locke, Ehrhart, Brown, Davis, & Lyon, (2023) found that type of school has no significant difference on teachers' instructional practices. Moreover, Yousaf (2023) concluded there was no significant difference on teachers' practices when grouped according to type of school.

### **Learners' Experiences with Teachers' Instructional Strategies**

#### **4.a Teachers' Instructional Preparation for Flexible Learning**

At present, the big ideas used in curriculum design are differentiated in a broad sense and in a narrow sense with different categories and levels and are of great significance to the development of students' transferable skills. With the "unit" being an important carrier, important elements of big idea-based teaching include the goal of concept understanding, potential learning materials, situation creation, and independent construction (Lv, 2023). A well-designed curriculum acts as a guide to guarantee learners on the proper route. Its components are intended to help students go from fundamental concepts to more complicated topics or abilities. The curriculum specifies the learning goals, criteria, and key competencies that students must show before progressing to the next level (Fitzsimons, Coleman, Greatorex, Salem, & Johnson, 2020). Teachers have an important role in planning, implementing, assessing, and adjusting curricula (Nurtanto, Kholifah, Masek, A Sudira, & Samsudin, 2021). A curriculum serves as a road map for instructors and students to follow on the route to academic (Markowitz & Bouffard, 2022). Curriculum is a standards-based series of planned experiences through which students practice and master subjects and applied learning abilities (Limon, Vallente, Chua, & Rustia, 2022). The curriculum serves as a common guide for all educators in terms of what is required for teaching and learning in order for every student to have access to strong academic experiences (Su, Zhong, & Ng, 2022). A curriculum's structure, organization, and concerns are designed to improve student learning and facilitate instruction (Grimus, 2020). To successfully support instruction and learning, curriculum must

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include the essential goals, techniques, resources, and assessments (Shepard, 2019).

An instructional plan is a guide that a teacher uses on a daily basis to establish what students will learn, how the lesson will be presented, and how learning will be assessed (König, Bremerich-Vos, Buchholtz, & Glutsch, 2020). Instructional plan helps teachers work more efficiently in the classroom by providing a thorough blueprint that they follow during each lesson. This ensures that every second spent in class is spent teaching relevant topics and having useful debates, rather than finding out what you are expected to do as time passes (Boukhechba & Bouhania, 2019). Instructional plan often includes crucial components such as objectives, requirements, resources, processes, and evaluation strategies. Because each component of an effective lesson plan has an impact on students' learning, it is critical to handle them strategically (Sahu, Dalcik, Dalcik, C., Gupta, Chattu, & Umakanthan, 2022). An instructional plan is an essential step in developing a comprehensive curriculum. It goes further into the specifics to ensure that you offer the proper knowledge to your pupils at the right time, while also making your job easier by providing you with a clear sense of direction that you can follow every day (Supriani, Meliani, Supriyadi, Supiana, & Zaqiah, 2022). The objectives of learning and providing learners with opportunities to investigate, establish, and show what they are taught serve as the foundation for developing a lesson plan. It promotes a learning atmosphere that focuses on the entire class rather than the teacher (Wu, Y. & Yeziarski, 2022).

Learning objectives should ideally indicate a path for the learner to take in order to acquire new information, abilities, and attitudes (Khasawneh, Mohammad, Ben-Abdallah, & Alabidi, 2022). A good learning objective is a statement that is clear, concise, and detailed about a student's actions (Mandouit & Hattie, 2023). Effective learning requires learning objectives (also known as learning outcomes). It allows for the creation of more effective instruction planning, activities, and assessments by helping to explain what students should be able to perform as a consequence of the teaching. Consider what students should understand and be able to do from the lesson when setting learning objectives (Yansyah, 2022). Teaching materials come in many shapes and sizes, but they all have in common the ability to support learning. The purpose and significance of teaching and learning materials are to make classes exciting, learning simple, and enable teachers to effortlessly communicate idea (Hasanah, Syaifuddin, & Darmayanti, 2022). Instructional resources are those that a teacher



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uses to supplement their instruction (Silver, 2022).. Hence, these learning materials should be aligned and appropriate with the learning objectives (Hailikari, Virtanen, Vesalainen, & Postareff, 2022). Thus, teachers incorporate visual and audio-visual assistance and can be tangible or intangible. Resource materials provide learners with hands-on experiences that help them acquire skills and concepts and work in several ways (Labrie, Mok, Tang, Lui, Oehlberg, & Poretski, 2022).

Students' compliance to class requirements and performance tasks is important in teaching because it helps students stay organized and on track (Agayon, Agayon, & Pentang, 2022). A well-planned schedule ensures that all the necessary topics are covered within a specific timeframe, allowing teachers to allocate sufficient time to each topic. This helps students to learn more effectively and efficiently, as they are not rushed through the material, and can spend enough time practicing and reviewing the concepts taught (Silén-Lipponen, Äijö, & Aura, 2022). Schedules also help teachers to plan their lessons and assessments, ensuring that they are aligned with the curriculum and meet the learning objectives. This helps to ensure that students are adequately prepared for exams and other assessments (Lazarus, Brookhart, Ghery, & Liu, 2022). Schedules and time frames also help to establish a routine and structure in the classroom, which can be beneficial for students' learning and behavior (Mundiri & Hamimah, 2022).. Having a consistent schedule can help students to feel more comfortable and confident in the classroom, as they know what to expect and when. Schedules and time frames are crucial in teaching as they help to promote effective learning, organization, and structure in the classroom (Ionescu, Paschia, Gudanescu Nicolau, Stanescu, Neacsu Stancescu, Coman, .& Uzlaui, 2020).

### **4.b Teachers' Adaptability to Flexible Learning**

One of the major shifts of teachers during flexible learning is creating recorded video lectures. This is because recorded video lectures provide teachers with the opportunity to deliver their lessons and instructions to their students without the need for face-to-face interaction (Singh, Steele& Singh, 2021). With recorded video lectures, teachers can provide their students with a pre-recorded video that learners can watch and review at their own pace and time. This allows students to learn at their own pace and in a way that suits their learning style (Zainuddin, Haruna, Li, Zhang, & Chu, 2019; Islam, Kim, & Kwon, 2020). Additionally, recorded video lectures also enable teachers to reach a

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wider audience, especially those who may have difficulty attending live classes due to time constraints or geographical limitations (Das, 2021). Furthermore, recorded video lectures can be used as a teaching resource and can be shared with other teachers to help them prepare their lessons (Sablić, Miroslavljević, & Škugor, 2021; Nguyen, Tran, Nguyen, Nguyen, & Nguyen, 2022). Hence, recorded video lectures have become an essential tool for teachers in the flexible learning environment, providing a convenient and effective way to deliver instruction to their students (Khan & Abid, 2021).

Technology integration in classroom was one of the major shifts of teachers during the flexible learning because it required a significant change in their teaching methods and approaches (Korkmaz & Toraman, 2020; Rapanta, Botturi, Goodyear, Guàrdia, & Koole, 2021). Teachers have had to familiarize themselves with different online learning platforms, apps, and tools to facilitate their students' learning. These technologies have allowed teachers to create engaging and interactive learning environments, provide personalized feedback, and monitor their students' progress (Liu, Lomovtseva, & Korobeynikova, 2020; Mishra, Gupta, & Shree, 2020). Teachers have to learn how to use technology to communicate with their students and parents. Online meetings, video conferencing, and messaging apps have become the primary means of communication between teachers, students, and parents (Amin, & Sundari, 2020). Teachers have had to learn how to use these tools effectively to ensure that students receive the necessary support and guidance (Pokhrel & Chhetri, 2021). This shift also required teachers to be more flexible and adaptable in responding to the needs and challenges of their students, who were also adjusting to the new learning environment. Adapting to learning technology was essential for teachers to continue providing quality education and support to their students during the pandemic (Safta-Zecheria, Negru, & Virag, 2020). Learning technology has become an essential tool for teachers to ensure that students continue to learn despite the challenges and restrictions (Al-Smadi, Abugabah, & Al Smadi, 2022).

Utilization of differentiated teaching strategies was one of the major shifts of teachers during the flexible learning because it allowed them to adapt to the changing needs of their students (Grynyuk, S., Kovtun, Sultanova, Zheludenko, Zasluzhena, & Zaytseva 2022). With the sudden shift to online learning due to the pandemic, teachers had to quickly adjust their teaching methods to suit the new learning environment (Singh, Evans, Reed, Karch, Qualey, Singh, & Wiersma, 2022). Teachers had to be flexible in their approach to teaching, as

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what worked in a traditional classroom setting may not necessarily work in an online setting (Tsegay, Ashraf, Perveen, & Zegegrish, 2022). For instance, teachers had to find new ways of delivering their lessons and engaging their students online. Teachers must use a variety of teaching strategies, such as videos, interactive quizzes, and online discussions, to keep their students interested and motivated (Phillips, & Wiesbauer, 2022). Teachers must be creative in their lesson planning, considering the limitations of the online environment. Moreover, teachers need to cater to the individual needs of their students (Woodcock, Sharma, Subban, & Hitches, 2022). Teachers must be flexible in providing support to students who are struggling with the new learning environment. Teachers must be patient and understanding and provide personalized support to each student to ensure their success (Singh, Evans, Reed, Karch, Qualey, Singh, & Wiersma, 2022).

During the flexible learning, reteaching the lesson became one of the major shifts of teachers (Mubaraq, Maulida, Hermaniar, & Rizky, 2023). Flexible learning involves online classes and self-paced learning, which means that students may miss some important information or misunderstand certain concepts (Liao, & Wu, 2023). Reteaching the lesson helps ensure that students fully understand the material and can apply it to their learning. Reteaching the lesson is important during flexible learning is that it allows teachers to address individual student needs (Tarrayo, Paz, & Gepila Jr, 2023). Some students may require additional support or explanation to fully grasp a concept, and reteaching the lesson provides an opportunity to meet those needs (Bhagwonparsadh & Pule, 2023). Reteaching the lesson during flexible learning helps to reinforce the learning objectives and outcomes. By revisiting the lesson, students can better retain the information and apply it to future learning tasks. Hence, reteaching the lesson is a crucial aspect of flexible learning that helps to ensure student success and learning outcomes (Yee & Rogers, 2022; Prinsloo, 2023).

### **4.c Learners' Positive Experiences with Teachers' instructional Strategies**

Teachers are invaluable as instructional material in a class as teachers play a critical role in the success of learners (Samarasekara, Ott, & Robins, 2022). Teachers are the ones who design and implement the curriculum, develop lesson plans, and create a positive learning environment (Archambault, Leary, & Rice, 2022). A teacher can adapt instruction to meet the individual needs and interests of each student, keeping them engaged and motivated. Furthermore,

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teachers are able to model positive behavior and attitudes towards learning, which can greatly influence the success of their students (Susilawati, Lubis, Kesuma, & Pratama, 2022). Teachers can create a safe and supportive environment where students are encouraged to take risks and learn from their mistakes (Waters & Orange, 2022). Teachers can foster a love of learning that stays with students long after they have left the classroom. Teachers are the backbone of successful learning experiences. Teachers provide the instructional material, motivation, and support necessary for students to achieve their goals and reach their full potential (Dirsa, BP, Diananseri & Setiawan, 2022; Pocaan, 2022; Inganah, Darmayanti, & Rizki, 2023).

Providing feedback among class performance among learners is crucial because it allows learners to understand their performance and identify areas for improvement (Hooda, Rana, Dahiya, Rizwan, & Hossain, 2022; Zhan, Wan, & Sun, 2022). Feedback helps learners to identify their strengths and weaknesses and understand how they can improve their skills and knowledge. Moreover, feedback among learners helps to create a supportive learning environment (Wulandari, 2022). When learners receive feedback from their peers, learners feel valued and respected, and learners are encouraged to continue learning (Pitt & Carless, 2022; Singh, Singh & Matthees, 2022). This creates a positive and supportive learning environment that promotes collaboration and teamwork. Moreover, feedback among learners helps to develop critical thinking skills (Almalki & Elfeky, 2022). When learners receive feedback, they are encouraged to reflect on their learning, and learners are challenged to think critically about their performance. This helps them to develop their problem-solving and analytical skills, which are essential for success in the workplace (Bø, Madangi, Ralaitafika, Ersdal, & Tjoflåt, 2022). Feedback among learners helps to enhance learning outcomes. When learners receive feedback, learners are more likely to engage with the learning material and take ownership of their learning. This leads to improved learning outcomes and a greater understanding of the subject matter (Gerard, Wiley, Debarger, Bichler, Bradford, & Linn, 2022).

The application of knowledge and skills among learners is important because it enables learners to become competent in their field of study (Rashidov, 2020; Gamage, Wijesuriya, Ekanayake, Rennie, Lambert, & Gunawardhana, 2020). It is not enough for learners to simply acquire knowledge, but they must also be able to apply it in practical situations. By applying knowledge and skills, learners can solve problems, make sound decisions, and create new ideas (Saleh, 2019; Sumarni & Kadarwati, 2020). The application of

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knowledge and skills promotes critical thinking and creativity among learners. It encourages them to think outside the box and find innovative solutions to problems (Gunawardena & Wilson, 2021). This is particularly important in today's rapidly changing world, where new challenges and problems arise all the time. Moreover, the application of knowledge and skills enhances learners' confidence and self-esteem (Zirak Haseeb Chicho, 2021; Munna & Kalam, 2021). When learners are able to apply what they have learned in real-life situations, learners feel a sense of accomplishment and pride (Filgona, Sakiyo, Gwany, D& Okoronka, 2020). This motivates them to continue learning and applying their knowledge and skills in their professional and personal lives (Orishev & Burkhonov, 2021). The application of knowledge and skills is crucial for learners to become competent, creative, and confident individuals (Rashidov, 2020). It prepares them for success in their careers and personal lives and enables them to contribute positively to society (Paolini, 2019).

Instructional strategies are an essential part of teaching and learning. It provides a framework for educators to develop and deliver effective instruction that engages learners, helps them acquire new knowledge and skills, and build their confidence through communication (Martins & Gresse Von Wangenheim, 2022). When instructional strategies are used effectively, it can help learners feel more confident and comfortable communicating with others. Another way that instructional strategies help learners build their confidence through communication is by creating a supportive and inclusive learning environment (Munna & Kalam, 2021; Prasetyo, Rachmadtullah, Samsudin, & Aliyyah, 2021). When learners feel comfortable and respected in the classroom, learners are more likely to participate in class discussions, ask questions, and share their ideas with others (Ferguson-Patrick, 2020). This can help them build their confidence and develop their communication skills over time. Thus, instructional strategies can help learners build their confidence by focusing on their strengths and helping them overcome their weaknesses (Rahiem, 2021). By providing personalized instruction and feedback, educators can help learners identify their strengths and areas for improvement, which can help them build their confidence and develop their communication skills in a way that is tailored to their individual needs and learning styles (Lee, 2019).

### **4.d Learners' Negative Experiences with Teachers' instructional Strategies**

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Intermittent internet connectivity is one of the negative experiences of learners during flexible learning because it directly affects their ability to access and participate in online classes or activities (Simamora, 2020; Agaton & Cueto, 2021). Slow internet speed or intermittent connectivity can cause delays in loading or accessing online course materials, videos, and other resources, making it challenging for learners to keep up with the pace of the course (Bringula, R., Reguyal, Tan, & Ulfa, 2021). Poor connectivity can also disrupt live online sessions, causing learners to miss out on important discussions or lectures (Lapitan Jr, Chan, Sabarillo, Sumalinog,., & Diaz, 2023). This can lead to frustration and a sense of isolation, which can ultimately impact their engagement and motivation to continue with their studies (Duby, Jonas, Bunce, Bergh, Maruping, Fowler, & Mathews, 2022). Learners who have limited access to the internet or do not have access to the necessary technology at home may find it difficult to complete their coursework and may be at a disadvantage compared to their peers who have better access to online resources (Jaggars, Motz, Rivera, Heckler, Quick, Hance, & Karwisch, 2021).

Teachers' lack of consideration can be a negative experience for learners during flexible learning because it can lead to feelings of disengagement and frustration (Park & Ramirez, 2022). When teachers fail to take into account their students' individual needs and circumstances, teachers may be perceived as uncaring or even indifferent (Syson, 2023). This can result in learners feeling unsupported and demotivated, which can ultimately impact their learning outcomes (Bećirović, 2023). A lack of consideration can lead to misunderstandings and miscommunications, which can further hinder the learning process (Arif, Mardiah, & Rahmawati, 2023). Inflexible or rigid teaching methods can also contribute to a negative learning experience, as learners may feel that they are not being given the opportunity to explore and discover at their own pace (Frey, & Tatum, 2022; Stadler, Alberton, & Smith, 2022). Ultimately, a lack of consideration for learners' needs and abilities can undermine the effectiveness of flexible learning and limit its potential to engage and inspire students (Scogin, Marks, Mader, & Phillips, 2023).

Non-completion of requirements can be one of the negative experiences of learners during flexible learning because learners may struggle to balance their learning with other responsibilities and commitments in their daily lives (Jones, Samra, & Lucassen, 2023). With flexible learning, learners are often given the freedom to work at their own pace and on their own schedule, but this can also lead to procrastination and a lack of structure (Maragha, Dempster,

Shuler, Lee, Mendes, & von Bergmann, 2023). Additionally, learners may feel pressured to complete assignments and meet deadlines on their own, without the support and guidance of a traditional classroom setting (Shaked & Altarac, 2023). This can cause stress and anxiety and may also affect the quality of their work. Hence, time constraints can affect the quality of learning as learners may rush through the coursework without fully understanding the concepts (Baber, 2020; Rasmitadila, Aliyyah, Rachmadtullah, Samsudin, Syaodih, Nurtanto, & Tambunan, 2020). This can lead to poor performance or a lack of knowledge retention, which can negatively impact their academic performance in the long run (Chandra, 2021).

Overwhelming workload is one of the negative experiences of learners during flexible learning because it can lead to stress, burnout, and poor academic performance. Unlike traditional classroom-based learning, which follows a structured schedule, flexible learning allows learners to set their own pace and schedule (Asikainen, Salmela-Aro, Parpala, & Katajavuori, 2020; Isa, Mansor, Zamri, & Ab Rahman, 2021). While this can be beneficial for some learners, it can also cause them to take on more than learners can handle. Learners may feel pressured to complete learning tasks quickly or to keep up with their peers, leading them to take on too much work at once (Zehr & Korte, 2020). The lack of face-to-face interaction with instructors and peers can make it difficult for learners to gauge their workload accurately (Gupta, Jankie, Pancholi, Talukdar, Sahu, & Sa, 2020). Learners may struggle to identify when learners have taken on too much or may be hesitant to seek help when they feel overwhelmed (Babcock, Lehan, & Hussey, 2019). This can lead to a cycle of stress and poor performance, further exacerbating the negative experience of overwhelming workload during flexible learning (Yasmin, Khalil, & Mazhar, 2020). Moreover, overwhelming workload is a common negative experience reported by learners during flexible learning (Majrashi, Khalil, Nagshabandi, & Majrashi, 2021). This is because flexible learning often involves self-directed study and time management, which can be challenging for many learners (Talosa, Javier, & Dirain, 2021). With flexible learning, students are often required to complete learning tasks and assignments independently and on their own time, which can lead to feelings of stress and anxiety if learners are unable to manage their workload effectively (Idris, Zulkipli, N., Abdul-Mumin, Ahmad, Mitha, Rahman, & Naing, 2021). Additionally, learners may feel overwhelmed if they are also juggling work or personal commitments alongside their studies (Rockman, Aderibigbe, Allen-Ile, Mahembe, & Hamman-Fisher, 2022).

#### 4.e Teachers' Best Pedagogical Practices

Active learning is one of the best instruction strategies of teachers during flexible learning because it engages students in the learning process and enhances their retention and understanding of concepts (Singhal, Kumar, Singh, Fuller, & Gill, 2021; Moşteanu, 2021). With flexible learning, students are often left to learn independently, which can lead to passive learning and reduced engagement. Active learning strategies such as group discussions, problem-based learning, and project-based learning allow students to work collaboratively, think critically, and apply their knowledge to real-world scenarios (Paragae, 2023; Nizami, Xue, Wong, Yu, Yeung, & Chu, 2023). Active learning also allows for personalized learning experiences that cater to the diverse needs of students (Xie, Chu, Hwang, & Wang, 2019). By using different active learning strategies, teachers can reach out to students with different learning styles and levels of understanding, making the learning process more effective and efficient (Jesionkowska, Wild, & Deval, 2020; Tyas & Naibaho, 2021). Active learning fosters a positive learning environment that encourages students to ask questions, provide feedback, and take ownership of their learning. This ultimately leads to better academic outcomes for students and a more satisfying teaching experience for educators (Vanhorn, Ward, Weismann, Crandall, Reule, & Leonard, 2019; Howell, 2021).

Collaborative learning is considered one of the best instruction strategies for teachers during flexible learning because it promotes engagement, active participation, and critical thinking among students (Medero & Albaladejo, 2020; Almusharraf & Bailey, 2021). Collaborative learning encourages students to work together to solve problems, share ideas, and learn from one another. This can be particularly beneficial during flexible learning, as it can help to create a sense of community and social connection in a virtual environment (Yusuf, Jusoh, & Yusuf, 2019; Supena, Darmuki, & Hariyadi, 2021). Collaborative learning also allows students to take ownership of their learning and develop important skills such as communication, leadership, and teamwork (Bhat, Bhat, Raju, D'Souza, & Binu, 2020; Seyoum, & Molla, 2022). In addition, it can help to accommodate different learning styles and abilities, as students can work together to support one another and share their strengths (Ehsan, Vida, & Mehdi, 2019; Goedhart, Blijnaut-van Westrhenen, Moser, & Zweekhorst, 2019). Collaborative learning can be a highly effective way to promote student learning and engagement during flexible learning, and it is a strategy that is well-suited to the unique



challenges and opportunities of this instructional context (Loh & Ang, 2020; Yang, Zhan, Chan, Lee, Chan, Yung, & Wan, 2023).

Technology integration is one of the best instructional strategies for teachers during flexible learning because it provides numerous benefits to both teachers and students (Suman, Chinnusamy, Singh, & Regin, 2023; Tarrayo, Paz, & Gepila Jr, 2023). Technology integration enables teachers to create engaging and interactive learning experiences that cater to the unique learning needs of each student (Plucker, Meyer, Karami& Ghahremani, 2023). It also allows teachers to provide personalized feedback to students, which is essential in promoting individual growth and development (Khan, Bashir, Basu, & Uddin, 2023). It provides access to a wide range of resources and materials that can be used to enhance learning (Zubaydi, Varga, & Molnár, 2023). Teachers can use online resources such as videos, simulations, and games to supplement traditional classroom teaching methods, making learning more exciting and meaningful for students (Fonariuk, Malykhin, Murzina, Sherman, Kanibolotska, & Tynnyi, 2023).). Technology integration allows students to access learning materials at any time, making learning more convenient and flexible (Zeyab & Alayyar, 2023). Technology integration promotes collaborative learning and communication among students. Online platforms and tools such as discussion forums, video conferencing, and collaborative documents allow students to work together on projects, share ideas, and learn from each other, even when they are not physically present in the same location (Szobonya, & Roche, 2023; Jaswal & Behera, 2023).

PROPOSED PEDAGOGICAL FRAMEWORK

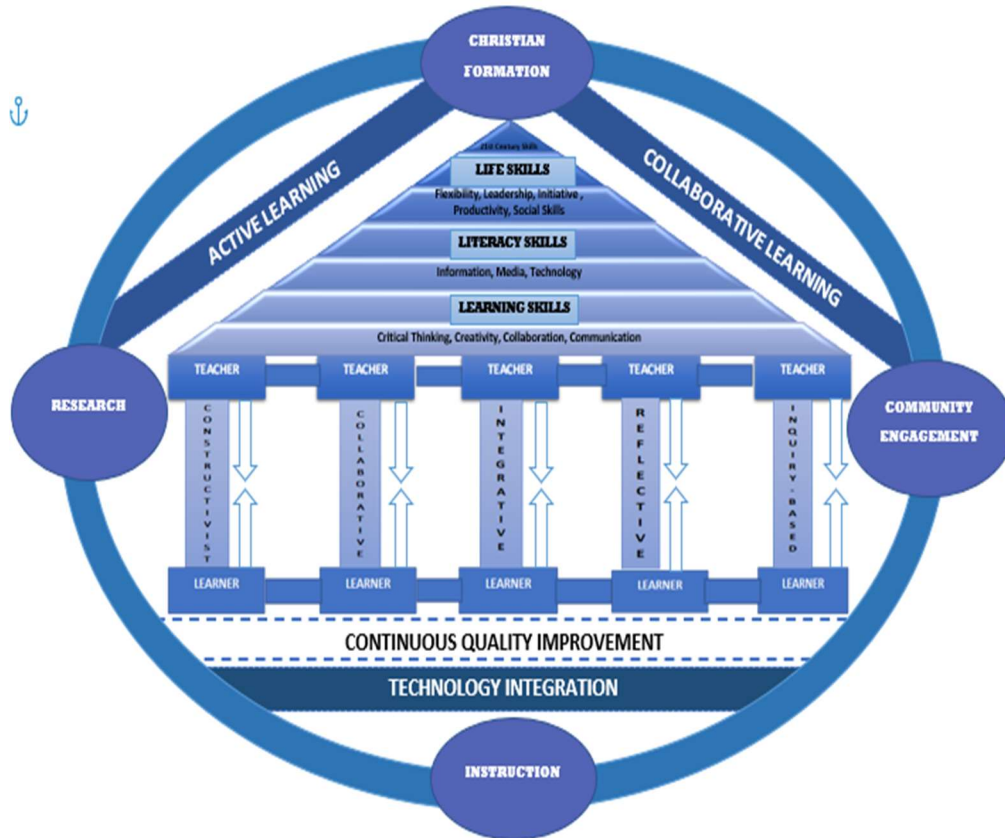


Figure 3. Proposed Pedagogical Framework

Our university has four (4) functions namely: Christian Formation, Research, Community Engagement, and Instruction which are interrelated and these functions for which they are envisioned to be achieved are made possible through the utilization of varied and effective teaching strategies. At the topmost portion of the 4-fold cycle functions is Christian Formation which is typical of a Catholic HEI. At the base part of the cycle is instruction which is the main/ core function of the catholic university backed up by research and community

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engagement functions. The latter functions have been implemented with the use of pedagogies in the entire institution. The apex of USL's educational vision is the attainment of the 21<sup>st</sup> century skills that can only be done through pedagogies towards the attainment of the different skills such as learning skills, literacy skills, and life skills. The realization of the different 21<sup>st</sup> century skills can be attained with the application of the different pedagogies which are outlined in the five pillars, these include constructivist, collaborative, integrative, reflective, and inquiry-based learning. The three most frequently utilized pedagogies are active learning, collaborative learning, and technology integration which allowed the teacher to integrate the different university functions in producing learners equipped with necessary skills, knowledge, and values towards life-end career. In order to maintain and sustain the quality of education that the university provides quality assurance mechanism is applied in the facets of the university functions.

### **CONCLUSION**

The emergence of the COVID-19 pandemic brought unprecedented disruptions in education that opted schools to have the adoption of flexible learning. Hence, it was revealed that the twists brought so many changes among teachers as regards their instruction such as on how to effectively navigate the technology, use of adequate technological resources, and utilization of appropriate instructional strategy to sustain learning amidst constraints in education. Thus, as it gradually turns to present context, teachers need to flexibly adjust their instructions alongside would be the changes in the curriculum to suit on learners' needs and to ensure that learners are meeting the expected standards and learning outcomes. With that, continuing professional development is deemed to be significant to upskill teachers in advancing them in both conventional and unconventional settings as 21st century education would demand us.

### **RECOMMENDATIONS**

In light with the findings and conclusions presented in the study, the following are recommended:

The academic coordinators and program chairs may consider the following approaches during their classroom observation among their teachers to ensure that teachers are implementing best practices, to support teacher development,

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to promote student-centered learning, to improve student engagement, and to foster positive and conducive learning environment.

The principals and deans may consider it in reviewing and revising their classroom observation tool to obtain precise and well-evaluated teaching and learning process. By incorporating these approaches into the observation tool, principals and deans can ensure that the tool is comprehensive and reflective of current best practices in education. This can lead to more effective teacher evaluations and ultimately improve student learning outcomes.

The institution, specifically program implementers, may use it as a benchmark for crafting relevant programs, training/seminars, workshops for teachers which focus on instructional strategies focusing on the five approaches in teaching.

The teachers may focus on the frequently utilized instructional strategies and strengthen the mastered approaches to obtain holistic teaching. Thus, mastering the following approaches will significantly help both teachers and learners, likewise the institution to practice culture of excellence in education.

The institution, specifically the vice-president for academics, may consider the following constraints experienced by learners and create schemes or strategies to address such that impede quality instruction.

The future researchers may conduct another study looking on the significant relationship of pedagogical practices on other variables such as teachers' pedagogical beliefs, teachers' teaching performance, and students' learning performance.

### References

- Aartun, I., Walseth, K., Standal, Ø. F., & Kirk, D. (2022). Pedagogies of embodiment in physical education—a literature review. *Sport, Education and Society*, 27(1), 1-13.
- Abd Samad, M. R., Ihsan, Z. H., & Khalid, F. (2021). The use of mobile learning in teaching and learning session during the Covid-19 pandemic in Malaysia. *Journal of Contemporary Social Science and Education Studies (JOCSSSES)*, 1(2), 46-65.

## GRADUATE SCHOOL RESEARCH JOURNAL

- Abdul Rabu, S. N., Mohamad, S. K., Awwad, S. A., Ismail, N. H. A., & Yeen, K. S. (2023). Effectiveness of inquiry-based learning with the aid of blossoms video on students' performance and motivation. *Education and Information Technologies*, 1-26.
- Achugar, M., & Tardio, T. (2023). Documenting language and content integrated learning: a case study of a genre-based history in films course. *International Journal of Bilingual Education and Bilingualism*, 26(3), 251-269.
- Adda, H. W., Buntuang, P. C. D., & Ardianto, H. (2022). Promoting Transformative Learning Through Independent-Study Campus (MBKM) in Higher Institutions During the COVID-19 Pandemic. *AL-ISHLAH: Jurnal Pendidikan*, 14(3), 2701-2710.
- Agaton, C. B., & Cueto, L. J. (2021). Learning at Home: Parents' Lived Experiences on Distance Learning during COVID-19 Pandemic in the Philippines. *International Journal of Evaluation and Research in Education*, 10(3), 901-911.
- Agayon, A. J. D., Agayon, A. K. R., & Pentang, J. (2022). Teachers in the new normal: Challenges and coping mechanisms in secondary schools. *Journal of Humanities and Education Development (JHED)*, 4.
- Agbi, A., Sengsri, S., Teeraputon, D., & Natakatoog, O. (2022). Processes Associated with The Adoption of Mobile-Blended With Inquiry-Based Learning to develop Critical Thinking Skills in Nigerian Business Education Undergraduate Students. *Journal Of Education Naresuan University*, 24(3), 1-23.
- Ahmed, V., & Opoku, A. (2022). Technology supported learning and pedagogy in times of crisis: the case of COVID-19 pandemic. *Education and information technologies*, 27(1), 365-405.
- Aidoo, B., Macdonald, M. A., Vesterinen, V. M., Pétursdóttir, S., & Gísladóttir, B. (2022). Transforming Teaching with ICT Using the Flipped Classroom

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Approach: Dealing with COVID-19 Pandemic. *Education Sciences*, 12(6), 421.
- Akdeniz, C. (2016). Instructional strategies. In *Instructional process and concepts in theory and practice* (pp. 57-105). Springer, Singapore.
- Akib, E., Imran, M. E., Mahtari, S., Mahmud, M. R., Prawiyogy, A. G., Supriatna, I., & Ikhsan, M. H. (2020). Study on implementation of integrated curriculum in Indonesia. *IJORER: International Journal of Recent Educational Research*, 1(1), 39-57.
- Akpan, J. P., & Beard, L. A. (2016). Using constructivist teaching strategies to enhance academic outcomes of students with special needs. *Universal Journal of Educational Research*, 4(2), 392-398.
- Aksa, F. I. (2022). Inquiry-based learning: A pedagogical tool to improving understanding of natural hazards. *Jàmbá: Journal of Disaster Risk Studies*, 14(1), 6.
- Al Adawi, S., & Al Ajmi, Z. (2023). The Impact of Using Self-Reflection Approach and Academic Advising on Performance of Lower Achieving Students. In *SHS Web of Conferences* (Vol. 156, p. 08001). EDP Sciences.
- Alam, M. A. (2023). From teacher-centered to Student-Centered Learning: The Role of Constructivism and Connectivism In Pedagogical Transformation. *Journal Of Education*, 11(2).
- Alhalafawy, W. S., & Zaki, M. Z. T. (2022). How has gamification within digital platforms affected self-regulated learning skills during the COVID-19 pandemic? Mixed-methods research. *International Journal of Emerging Technologies in Learning (Online)*, 17(6), 123.
- Ali, R.; Mondal M.; Das, T. (2018). Pedagogy and the role of teachers in the Teaching learning
- Almalki, A. D. A., & Elfeky, A. I. M. (2022). The Effect of Immediate and Delayed Feedback in Virtual Classes on Mathematics Students' Higher Order Thinking Skills. *Journal of Positive School Psychology*, 432-440.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Almusharraf, N. M., & Bailey, D. (2021). Online engagement during COVID-19: Role of agency on collaborative learning orientation and learning expectations. *Journal of Computer Assisted Learning*, 37(5), 1285-1295.
- Al-Qaysi, N., Mohamad-Nordin, N., & Al-Emran, M. (2021). Developing an Educational Framework for Using WhatsApp Based on Social Constructivism Theory. In *Recent Advances in Intelligent Systems and Smart Applications* (pp. 243-252). Springer, Cham.
- Al-Smadi, A. M., Abugabah, A., & Al Smadi, A. (2022). Evaluation of e-learning experience in the light of the COVID-19 in higher education. *Procedia Computer Science*, 201, 383-389.
- Amin, F. M., & Sundari, H. (2020). Efl students' preferences on digital platforms during emergency remote teaching: Video conference, lms, or messenger application?. *Studies in English Language and Education*, 7(2), 362-378.
- Amin, M., Nuriadi, N., Soepriyanti, H., & Thohir, L. (2022). Teacher Resilience in Facing Changes in Education Policy due to Covid-19 Pandemic. *Indonesian TESOL Journal*, 4(1), 71-84.
- Amzaleg, M., & Masry-Herzallah, A. (2022). Cultural dimensions and skills in the 21st century: The Israeli education system as a case study. *Pedagogy, Culture & Society*, 30(5), 765-785.
- Anamova, R. R., & Khvesyuk, T. M. (2020). The integrated approach to the teaching of geometric-graphical disciplines at the university. *Pedagogika*, 140(4), 172-193.
- Aparicio-Herguedas, J. L., Fraile-Aranda, A., & Rodríguez-Medina, J. (2023). Teaching skills in physical education teacher training: theoretical and factor models. *Humanities and Social Sciences Communications*, 10(1), 1-8.
- Apat, M. Q. (2022). Public School Science Teachers' Perceptions on the Effectiveness of Center-Based Learning Approach: A Content Knowledge-Based Method. *Special Education*, 2(43).

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Appel, C., Cappellini, M., Combe, C., & Vincent, C. (2022). Hyflex learning and teaching-Space and technological configurations for pedagogical activities and perceived presence. *Blowing up Trump at the Capitol Hill Riots, Eric Laurier*..... 8, 32.
- Archambault, L., Leary, H., & Rice, K. (2022). Pillars of online pedagogy: A framework for teaching in online learning environments. *Educational Psychologist*, 57(3), 178-191.
- Archambault, L., Leary, H., & Rice, K. (2022). Pillars of online pedagogy: A framework for teaching in online learning environments. *Educational Psychologist*, 57(3), 178-191.
- Arif, N., Mardiah, A., & Rahmawati, L. (2023, March). The perception of undergraduates students across fields of study on the implementation of online learning during the Covid-19 pandemic. In *AIP Conference Proceedings* (Vol. 2556, No. 1, p. 060004). AIP Publishing LLC.
- Arioder, L. J. Q., Arioder, V. Q., Quintana, V. V., & Dagamac, N. H. (2020). Application of constructivist teaching approach in introducing new environmental concepts to young elementary students in the Philippines: A small class sized experience from slime moulds modeling. *Interdisciplinary Journal of Environmental and Science Education*, 16(2), e2214.
- Arpentieva, M., Retnawati, H., Akhmetova, T., Azman, M., & Kassymova, G. (2021). Constructivist approach in pedagogical science. In *Challenges of science* (pp. 12-17).
- Asikainen, H., Salmela-Aro, K., Parpala, A., & Katajavuori, N. (2020). Learning profiles and their relation to study-related burnout and academic achievement among university students. *Learning and Individual Differences*, 78, 101781.
- Attard, C., Berger, N., & Mackenzie, E. (2021, August). The positive influence of inquiry-based learning teacher professional learning and industry partnerships on student engagement with STEM. In *Frontiers in Education* (Vol. 6, p. 693221). Frontiers Media SA.



#### GRADUATE SCHOOL RESEARCH JOURNAL

- Avuyali, A., Ndinga, B., & Mesmer, P. (2022). Contribution of interactive instructional strategies towards improving learners' academic achievement in the public county secondary schools in Kuria West Sub-county, Kenya. *Academic Journal of Social Sciences and Education, 10*(2).
- Babcock, A., Lehan, T., & Hussey, H. D. (2019). Mind the Gaps: An Online Learning Center's Needs Assessment. *Learning Assistance Review, 24*(1), 27-58.
- Baber, H. (2020). Determinants of students' perceived learning outcome and satisfaction in online learning during the pandemic of COVID-19. *Journal of Education and e-learning Research, 7*(3), 285-292.
- Ballena, C. T., & Liwag, E. F. (2019). Carpe Diem or Carpe Thesis? How graduate students deal with their thesis writing. *International Journal of Research, 6*, 68-76.
- Bannan, B., Dabbagh, N., & Walcutt, J. J. (2020). Instructional strategies for the future. *military learning, 68*.
- Bardesi, H., Al-Mashaikhi, A., Basahel, A., & Yamin, M. (2021). COVID-19 compliant and cost effective teaching model for King Abdulaziz University. *International Journal of Information Technology, 13*(4), 1343-1356.
- Bassiri, M., Mazouak, A., Belaaouad, S., Jammoukh, M., & Mansouri, K. (2022). Empowerment and Reflexivity Vector of Self-Determination, Self-esteem, and Knowledge of one's Own Learning Style and Technological Strategy: Case of the Digital Personal Project. *TECCIENCIA, 17*(32), 63-76.
- Bati, K. (2023). Education of Integrated Science: Discussions on Importance and Teaching Approaches. In *Integrated Education and Learning* (pp. 337-354). Cham: *Springer International Publishing*.
- Bawaneh, A. K., Moumene, A. B. H., & Aldalalah, O. (2020). Gauging the Level of Reflective Teaching Practices among Science Teachers. *International Journal of Instruction, 13*(1), 695-712.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Bećirović, S. (2023). Fostering Student Engagement in Implementing Digital Pedagogy. In *Digital Pedagogy: The Use of Digital Technologies in Contemporary Education* (pp. 97-111). Singapore: *Springer Nature Singapore*.
- Bedard, C., Bremer, E., Campbell, W., & Cairney, J. (2018). Evaluation of a direct-instruction intervention to improve movement and preliteracy skills among young children: a within-subject repeated-measures design. *Frontiers in pediatrics*, 5, 298.
- Behzad, M., Adnan, N., Malik, A. N., & Merchant, S. A. (2022). Technology-Embedded Hybrid Learning.
- Berry, B., Merkel, G., & Uerkwitz, J. (2023). Revealing theory and enhancing practice: The Purdue Problem-Centered Mathematics Curriculum Project. *Theory Into Practice*, 62(1), 16-25.
- Bhagwonparsadh, Y., & Pule, K. G. (2023). Learning Support Strategies to Overcome the Effects of Promoting Condoned Senior Phase Mathematics Learners to the FET Phase. *Research in Social Sciences and Technology*, 8(1), 16-30.
- Bhat, S., Bhat, S., Raju, R., D'Souza, R., & Binu, K. G. (2020). Collaborative learning for outcome based engineering education: A lean thinking approach. *Procedia Computer Science*, 172, 927-936.
- Bice, H., & Tang, H. (2022). Teachers' beliefs and practices of technology integration at a school for students with dyslexia: A mixed methods study. *Education and Information Technologies*, 27(7), 10179-10205.
- Bizami, N. A., Tasir, Z., & Kew, S. N. (2022). Innovative pedagogical principles and technological tools capabilities for immersive blended learning: a systematic literature review. *Education and Information Technologies*, 1-53.
- Blik, H., Harskamp, E. G., & Naayer, H. M. (2016). Strategy instruction versus direct instruction in the education of young adults with intellectual disabilities. *Journal of Classroom Interaction*, 20-35.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Bø, B., Madangi, B. P., Ralaitafika, H., Ersdal, H. L., & Tjoflåt, I. (2022). Nursing students' experiences with simulation-based education as a pedagogic method in low-resource settings: A mixed-method study. *Journal of clinical nursing*, 31(9-10), 1362-1376.
- Boholano, H. B., Sanchez, J. M. P., Balo, V. T. M., & Navarro, T. M. M. (2022). Utilization of e-portfolios in teacher education institutions of higher education in Central Visayas, Philippines. *International Journal of Information and Education Technology*, 12(9), 912-920.
- Boukhechba, H., & Bouhania, B. (2019). Adaptation of instructional design to promote learning in traditional EFL classrooms: Adobe Captivate for e-learning content. *International Journal of Education and Development using Information and Communication Technology*, 15(4), 151-164.
- Bozkurt, A., Karakaya, K., Turk, M., Karakaya, Ö., & Castellanos-Reyes, D. (2022). The Impact of COVID-19 on Education: A Meta-Narrative Review. *TechTrends*, 1-14.
- Brandão, S. (2022). Project-Based Learning as a Teaching Methodology in Undergraduate Nursing Students. *J Mod Nurs Pract Res*, 2(1), 2..
- Brau, B. (2020). Constructivism. *The Students' Guide to Learning Design and Research*.
- Bredow, C. A., Roehling, P. V., Knorp, A. J., & Sweet, A. M. (2021). To flip or not to flip? A meta-analysis of the efficacy of flipped learning in higher education. *Review of Educational Research*, 91(6), 878-918.
- Bringula, R., Reguyal, J. J., Tan, D. D., & Ulfa, S. (2021). Mathematics self-concept and challenges of learners in an online learning environment during COVID-19 pandemic. *Smart Learning Environments*, 8(1), 1-23.
- Brown, B. A., Boda, P., Lemmi, C., & Monroe, X. (2019). Moving culturally relevant pedagogy from theory to practice: Exploring teachers' application of culturally relevant education in science and mathematics. *Urban Education*, 54(6), 775-803.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Buchori, A., Setyosari, P., Dasna, I. W., Ulfa, S., Degeng, I. N. S., Sa'dijah, C., & Karangtempel, S. T. (2017). Effectiveness of direct instruction learning strategy assisted by mobile augmented reality and achievement motivation on students cognitive learning results. *Asian Social Science*, 13(9), 137-144.
- Budhai, S. S. (2017). Best practices in engaging online learners through active and experiential learning strategies. *Routledge*.
- Bülow, M. W. (2022). Designing synchronous hybrid learning spaces: Challenges and opportunities. *Hybrid Learning Spaces*, 135-163.
- Bulturbayevich, M. B., Rahmat, A., & Murodullayevich, M. N. (2021). Improving Teacher-Student Collaboration And Educational Effectiveness By Overcoming Learning Challenges. *Aksara: Jurnal Ilmu Pendidikan Nonformal*, 7(1), 153-160.
- Burch, G. F., Giambatista, R., Batchelor, J. H., Burch, J. J., Hoover, J. D., & Heller, N. A. (2019). A meta-analysis of the relationship between experiential learning and learning outcomes. *Decision Sciences Journal of Innovative Education*, 17(3), 239-273.
- Butola, L. K. (2021). E-learning-a new trend of learning in 21st century during COVID-19 pandemic. *Indian Journal of Forensic Medicine & Toxicology*, 15(1), 423.
- Cabual, R. A. (2021). Learning styles and preferred learning modalities in the new normal. *Open Access Library Journal*, 8(4), 1-14.
- Calavia, M. B., Blanco, T., Casas, R., & Dieste, B. (2023). Making design thinking for education sustainable: Training preservice teachers to address practice challenges. *Thinking Skills and Creativity*, 47, 101199.
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., ... & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. *Journal of research in Nursing*, 25(8), 652-661.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Capone, R. (2022). Blended learning and student-centered active learning environment: a case study with STEM undergraduate students. *Canadian Journal of Science, Mathematics and Technology Education*, 22(1), 210-236.
- Cardona, M. C., Buan, A. T., & Inutan, E. D. (2022). Teachers' Perspective of Science Flexible Learning. *Asia Research Network Journal of Education*, 2(1), 1-16.
- Carroll, F., Faruque, R., Hewage, C., Bentotahewa, V., & Meace, S. (2023). The Journey to Making Digital Technology Education a Community Learning Venture. *Education Sciences*, 13(5), 428.
- Casanova, D., Huet, I., & Garcia, F. (2023). The Experience of Co-Designing a Learning Space with Teachers and Students. *Education Sciences*, 13(2), 103.
- Cevikbas, M., & Kaiser, G. (2022). Promoting Personalized Learning in Flipped Classrooms: A Systematic Review Study. *Sustainability*, 14(18), 11393.
- Cevikbas, M., & Kaiser, G. (2022). Student engagement in a flipped secondary mathematics classroom. *International Journal of Science and Mathematics Education*, 20(7), 1455-1480.
- Chandra, Y. (2021). Online education during COVID-19: perception of academic stress and emotional intelligence coping strategies among college students. *Asian education and development studies*, 10(2), 229-238.
- Chang, C. Y., Sung, H. Y., Guo, J. L., Chang, B. Y., & Kuo, F. R. (2022). Effects of spherical video-based virtual reality on nursing students' learning performance in childbirth education training. *Interactive Learning Environments*, 30(3), 400-416.
- Charania, A., Bakshani, U., Paltiwale, S., Kaur, I., & Nasrin, N. (2021). Constructivist teaching and learning with technologies in the COVID-19 lockdown in Eastern India. *British Journal of Educational Technology*, 52(4), 1478-1493.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Chatzipanagiotou, P., & Katsarou, E. (2023). Crisis Management, School Leadership in Disruptive Times and the Recovery of Schools in the Post COVID-19 Era: A Systematic Literature Review. *Education Sciences*, 13(2), 118.
- Chen, L. L. (2022). Designing Online Discussion for HyFlex Learning. *International Journal of Educational Methodology*, 8(1), 191-198.
- Chengay, F. B. (2023). Inquiry-Based Learning: Its Impact to Students Problem Solving Performance in Series.
- Cho, H. J., Melloch, M. R., & Levesque-Bristol, C. (2021). Enhanced student perceptions of learning and performance using concept-point-recovery teaching sessions: a mixed-method approach. *International Journal of STEM Education*, 8(1), 1-17.
- Choi, T. H., & Poudel, P. P. (2023). (Re) thinking Initial Teacher Education Curriculum: Toward Equitable, Crisis-Ready TESOL. In *Local Research and Glocal Perspectives in English Language Teaching: Teaching in Changing Times* (pp. 461-479). Singapore: *Springer Nature Singapore*.
- Chotiyarnwong, P., Boonnasa, W., Chotiyarnwong, C., & Unnanuntana, A. (2021). Video-based learning versus traditional lecture-based learning for osteoporosis education: a randomized controlled trial. *Aging Clinical and Experimental Research*, 33(1), 125-131.
- Chu, S. K. W., Reynolds, R. B., Tavares, N. J., Notari, M., & Lee, C. W. Y. (2021). 21st century skills development through inquiry-based learning from theory to practice. *Springer International Publishing*.
- Colomer, J., Serra, T., Cañabate, D., & Bubnys, R. (2020). Reflective learning in higher education: Active methodologies for transformative practices. *Sustainability*, 12(9), 3827.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Colomer, J., Serra, T., Cañabate, D., & Bubnys, R. (2020). Reflective learning in higher education: Active methodologies for transformative practices. *Sustainability*, 12(9), 3827.
- Compayré, G., & Payne, W. H. (2015). *The history of pedagogy*. Routledge.
- Cook, J., & Holley, D. (2022). Covid-19 lock-down: Hybrid learning cases using the lens of the zone of possibility. In *Hybrid Learning Spaces* (pp. 77-94). Springer, Cham
- Cook, T. D., Campbell, D. T., & Shadish, W. (2002). Experimental and quasi-experimental designs for generalized causal inference (pp. 103-134). *Boston: Houghton Mifflin*.
- Cooper, G. (2023). Examining science education in chatgpt: An exploratory study of generative artificial intelligence. *Journal of Science Education and Technology*, 1-9.
- Courtney, S. A., Miller, M. E., & Gisondo, M. J. (2022). The Impact of COVID-19 on Teachers' Integration of Digital Technology. *Contemporary Educational Technology*, 14(4), ep387.
- Crawford, R. (2017). Rethinking teaching and learning pedagogy for education in the twenty-first century: blended learning in music education. *Music Education Research*, 19(2), 195-213.
- Cui, Y., Zhao, G., & Zhang, D. (2022). Improving students' inquiry learning in web-based environments by providing structure: Does the teacher matter or platform matter?. *British Journal of Educational Technology*, 53(4), 1049-1068.
- Culajara, C. J. (2022). The impact of video-based presentations on BPED students' learning performance. *Edu Sportivo: Indonesian Journal of Physical Education*, 3(2), 137-148.
- Dale, J. (2022). Creating engaging and effective information literacy activities for a hybrid world.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Daniyarovna, K. S. (2022). THE MECHANISM OF ACTIVATING STUDENTS'INDEPENDENT STUDY BASED ON MOBILE TECHNOLOGIES. *Berlin Studies Transnational Journal of Science and Humanities*, 2(1.5 Pedagogical sciences).
- Das, D. (2021). E-Learning Amid Covid-19 Pandemic Situation: A Case Study. *The Online Journal of Distance Education and e-Learning*, 9(1), 47-59.
- Dattathreya, P. (2022). Supporting the Development of Lifelong Learning Skills. In *Handbook of Research on Developing Competencies for Pre-Health Professional Students, Advisors, and Programs* (pp. 1-23). *IGI Global*.
- De la Rama, J. M., Sabases, M., Antonion, A. F., Ricohermoso, C., Torres, J. M., Devanadera, A., ... & Alieto, E. (2020). Virtual teaching as the 'new norm': Analyzing science teachers' attitude toward online teaching, technological competence and access.
- De la Rama, J., Sabasales, M., Antonio, A., Ricohermoso, C., Torres, J., Devanadera, A., & Alieto, E.(2020). Virtual Teaching as the New Norm': Analyzing Science Teachers' Attitude toward Online Teaching, Technological Competence and Access. *International Journal of Advanced Science and Technology*.
- De los Reyes, E. J., Blannin, J., Cohrssen, C., & Mahat, M. (2022). Resilience of higher education academics in the time of 21st century pandemics: a narrative review. *Journal of Higher Education Policy and Management*, 44(1), 39-56.
- DeCoito, I., & Briona, L. K. (2023). Fostering an entrepreneurial mindset through project-based learning and digital technologies in STEM teacher education. In *Enhancing Entrepreneurial Mindsets Through STEM Education* (pp. 195-222). *Cham: Springer International Publishing*.
- Detyna, M., Sanchez-Pizani, R., Giampietro, V., Dommert, E. J., & Dyer, K. (2023). Hybrid flexible (HyFlex) teaching and learning: climbing the mountain of implementation challenges for synchronous online and



## GRADUATE SCHOOL RESEARCH JOURNAL

face-to-face seminars during a pandemic. *Learning environments research*, 26(1), 145-159.

- Dignath, C., & Veenman, M. V. (2021). The role of direct strategy instruction and indirect activation of self-regulated learning—Evidence from classroom observation studies. *Educational Psychology Review*, 33(2), 489-533.
- Dirsa, A., BP, S. A., Diananseri, C., & Setiawan, I. (2022). Teacher Role as Professional Educator in School Environment. *International Journal of Science Education and Cultural Studies*, 1(1), 32-41.
- Doğantan, E. (2020). An interactive instruction model design with role play technique in distance education: A case study in open education system. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 27, 100268.
- Dorriv, M. (2021, November). Incorporation of Serious Games into Higher Education: A Survey. In *2021 International Serious Games Symposium (ISGS)* (pp. 86-90). IEEE.
- Duby, Z., Jonas, K., Bunce, B., Bergh, K., Maruping, K., Fowler, C., ... & Mathews, C. (2022, March). Navigating education in the context of COVID-19 lockdowns and school closures: challenges and resilience among adolescent girls and young women in South Africa. In *Frontiers in Education* (Vol. 7). Frontiers Media SA.
- Dziubaniuk, O., & Nyholm, M. (2021). Constructivist approach in teaching sustainability and business ethics: A case study. *International Journal of Sustainability in Higher Education*, 22(1), 177-197.
- Ecevit, T., & Kingir, S. (2022). Primary Student Teachers' Teaching-Learning Conceptions, Attitudes and Self-Efficacy Beliefs toward Science Teaching. *Journal of Turkish Science Education*, 19(3), 773-785.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Ehsan, N., Vida, S., & Mehdi, N. (2019). The impact of cooperative learning on developing speaking ability and motivation toward learning English. *Journal of language and education*, 5(3 (19)), 83-101.
- Eichler, J. F. (2022). Future of the flipped classroom in chemistry education: Recognizing the value of independent preclass learning and promoting deeper understanding of chemical ways of thinking during in-person instruction. *Journal of Chemical Education*, 99(3), 1503-1508.
- Elvey, M., & Burke, J. (2023). Implementing inclusive pedagogies: what regular primary classroom teachers know and do. In *Inclusion, Equity, Diversity, and Social Justice in Education: A Critical Exploration of the Sustainable Development Goals* (pp. 199-215). Singapore: *Springer Nature Singapore*.
- England, T. K., Nagel, G. L., & Salter, S. P. (2020). Using collaborative learning to develop students' soft skills. *Journal of Education for Business*, 95(2), 106-114.
- Engle, J. M. (2022). *Project-Based Learning, Achievement Level, Knowledge Gains and Knowledge Retention in a High School Mathematics Classroom* (Doctoral dissertation, University of Findlay).
- Erdemir, N., & Yeşilçınar, S. (2021). Reflective practices in micro teaching from the perspective of preservice teachers: teacher feedback, peer feedback and self-reflection. *Reflective Practice*, 22(6), 766-781.
- Erkinovna, I. M. (2022). Psychological and Pedagogical Characteristics of Students in the Process of Developing Independence. *International Journal of Social Science*.
- Eyal, L., & Gil, E. (2022). Hybrid Learning Spaces—A Three-Fold Evolving Perspective. In *Hybrid Learning Spaces* (pp. 11-23). Springer, Cham.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Ezra, O., Cohen, A., Bronshtein, A., Gabbay, H., & Baruth, O. (2021). Equity factors during the COVID-19 pandemic: Difficulties in emergency remote teaching (ert) through online learning. *Education and Information Technologies*, 26(6), 7657-7681.
- Fakazli, Ö. (2021). Different ways of promoting reflective teaching. *Journal of Social and Humanities Sciences Research*, 8(69), 1255-1267.
- Ferguson-Patrick, K. (2020). Cooperative learning in Swedish classrooms: Engagement and relationships as a focus for culturally diverse students. *Education Sciences*, 10(11), 312.
- Filgona, J., Sakiyo, J., Gwany, D. M., & Okoronka, A. U. (2020). Motivation in learning. *Asian Journal of Education and social studies*, 10(4), 16-37.
- Firmansyah, H. (2016). Effect Direct And Indirect (Inquiry) Instructions Model In Teaching Gymnastics. *Publikasi Pendidikan*, 6(3).
- Fisher, E. A., Liu, D., & Trainin, G. (2021). Review of flexible learning spaces in education.
- Fitzsimons, S., Coleman, V., Greatorex, J., Salem, H., & Johnson, M. (2020). Context Matters--Adaptation Guidance for Developing a Local Curriculum from an International Curriculum Framework. *Research Matters*.
- Fonariuk, O., Malykhin, A., Murzina, O. A., Sherman, M., Kanibolotska, O., & Tynnyi, V. (2023). Expanded Reality: Just a Trend of our Time or do We Need Technology?.
- Frelin, A., & Grannäs, J. (2022). Teachers' pre-occupancy evaluation of affordances in a multi-zone flexible learning environment--introducing an analytical model. *Pedagogy, Culture & Society*, 30(2), 243-259.
- Frey, T. K., & Tatum, N. T. (2022). Instructor strictness: instrument development and validation. *Communication Education*, 71(4), 327-354.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Friesen, N., & Kenklies, K. (2022). Continental pedagogy & curriculum. *The international encyclopedia of education (4th ed.)*. Elsevier.
- Gallardo-Guerrero, A. M., Maciá-Andreu, M. J., Conde-Pascual, E., Sánchez-Sáez, J. A., Zurita-Ortiz, B., & García-Tascón, M. (2022). From Flipped Classroom to Personalised Learning as an Innovative Teaching Methodology in the Area of Sports Management in Physical Activity and Sport Sciences. *Sustainability*, 14(13), 7714.
- Gamage, K. A., Wijesuriya, D. I., Ekanayake, S. Y., Rennie, A. E., Lambert, C. G., & Gunawardhana, N. (2020). Online delivery of teaching and laboratory practices: Continuity of university programmes during COVID-19 pandemic. *Education Sciences*, 10(10), 291.
- Gathu, C. (2022). Facilitators and barriers of reflective learning in postgraduate medical education: a narrative review. *Journal of Medical Education and Curricular Development*, 9, 23821205221096106.
- Gerard, L., Wiley, K., Debarger, A. H., Bichler, S., Bradford, A., & Linn, M. C. (2022). Self-directed science learning during COVID-19 and beyond. *Journal of science education and technology*, 1-14.
- Gholam, A. P. (2019). Inquiry-based learning: Student teachers' challenges and perceptions. *Journal of Inquiry and Action in Education*, 10(2), 6.
- Giner, M. P., & Gil, I. R. (2022). STUDENTS'SATISFACTION IN PROJECT-BASED LEARNING. In *INTED2022 Proceedings* (pp. 8637-8641). IATED
- Ginsburg, M. B., & Megahed, N. M. (2021). Global discourses and educational reform in Egypt: The case of active-learning pedagogies. In *Educational Scholarship across the Mediterranean* (pp. 171-195). Brill.
- Goedhart, N. S., Blignaut-van Westrhenen, N., Moser, C., & Zweekhorst, M. B. (2019). The flipped classroom: supporting a diverse group of students in their learning. *Learning Environments Research*, 22, 297-310.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Gracia, E. P., Rodríguez, R. S., & Pedrajas, A. P. (2019). Analysis of Science and Technology pre-service teachers' beliefs on the construction of the Teachers' Professional Identity during the initial training process. *EURASIA Journal of Mathematics, Science and Technology Education*, 15(10), em1756.
- Grimus, M. (2020). Emerging technologies: Impacting learning, pedagogy and curriculum development. *Emerging technologies and pedagogies in the curriculum*, 127-151.
- Grimus, M. (2020). Emerging technologies: Impacting learning, pedagogy and curriculum development. *Emerging technologies and pedagogies in the curriculum*, 127-151.
- Grynyuk, S., Kovtun, O., Sultanova, L., Zheludenko, M., Zasluzhena, A., & Zaytseva, I. (2022). Distance learning during the COVID-19 pandemic: the experience of Ukraine's higher education system. *Electronic Journal of E-Learning*, 20(3), pp242-256.
- Gu, J., Tang, L., Liu, X., & Xu, J. (2022). Promoting Pre-service Teacher Students' Learning Engagement: Design-Based Research in a Flipped Classroom. *Frontiers in Psychology*, 13.
- Gumallaoui, E. J. G., Villanueva Jr, G. R., & Sad-ayan–Lacambra, J. (2022). Flexible Learning As Teaching Strategy In The New Normal Environment: Input To ISPSC Extension Program. *Journal of Positive School Psychology*, 7259-7270.
- Gunawardena, M., & Wilson, K. (2021). Scaffolding students' critical thinking: A process not an end game. *Thinking Skills and Creativity*, 41, 100848.
- Gupta, M. M., Jankie, S., Pancholi, S. S., Talukdar, D., Sahu, P. K., & Sa, B. (2020). Asynchronous environment assessment: A pertinent option for medical and allied health profession education during the COVID-19 pandemic. *Education Sciences*, 10(12), 352.
- Hailikari, T., Virtanen, V., Vesalainen, M., & Postareff, L. (2022). Student perspectives on how different elements of constructive alignment

**GRADUATE SCHOOL RESEARCH JOURNAL**

support active learning. *Active Learning in Higher Education*, 23(3), 217-231.

- Hamilton, E. R., Rosenberg, J. M., & Akcaoglu, M. (2016). The substitution augmentation modification redefinition (SAMR) model: A critical review and suggestions for its use. *Tech Trends*, 60(5), 433-441. <https://doi.org/10.1007/s11528-016-0091-y>
- Hasanah, N., Syaifuddin, M., & Darmayanti, R. (2022). Analysis of the Need for Mathematics Teaching Materials" Digital Comic Based on Islamic Values" for Class X SMA Students in Era 5.0. Numerical: *Jurnal Matematika Dan Pendidikan Matematika*, 6(2), 231-240.
- Haugland, M. J., Rosenberg, I., & Aasekjær, K. (2022). Collaborative learning in small groups in an online course—a case study. *BMC Medical Education*, 22(1), 165.
- Hayes, D., Mills, M., Christie, P., & Lingard, B. (2020). Teachers & schooling making a difference: Productive pedagogies, assessment and performance. *Routledge*.
- Hernández, L. E., Darling-Hammond, L., Adams, J., & Bradley, K. (2019). Deeper Learning Networks: Taking Student-Centered Learning and Equity to Scale. Deeper Learning Networks Series. *Learning Policy Institute*.
- Hernández-Ramos, J., Perna, J., Cáceres-Jensen, L., & Rodríguez-Becerra, J. (2021). The Effects of Using Socio-Scientific Issues and Technology in Problem-Based Learning: A Systematic Review. *Education Sciences*, 11(10), 640.
- Hesaaraki, S. (2021). Collaborative mechanistic reasoning: A proposed mechanism for learning in interactive instruction.
- Hilton, J. T. (2016). A case study of the application of SAMR and TPACK for reflection on technology integration into two social studies classrooms. *The Social Studies*, 107(2), 68-73. <https://doi.org/10.1080/00377996.2015.1124376>

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Hockings, C., Thomas, L., Ottaway, J., & Jones, R. (2018). Independent learning—what we do when you're not there. *Teaching in Higher Education*, 23(2), 145-161.
- Hooda, M., Rana, C., Dahiya, O., Rizwan, A., & Hossain, M. S. (2022). Artificial intelligence for assessment and feedback to enhance student success in higher education. *Mathematical Problems in Engineering*, 2022.
- Hosseinimehr, H., Entesarfoomani, G. H., Hejazi, M., & Asadzadeh-Dahraei, H. (2019). Comparison the Effectiveness of Direct and Indirect Instruction on Learners' Creativity. *Research in Medical Education*, 11(1), 50-61.
- Houghton, D., Soles, G., Vogelsang, A., Irvine, V., Prince, F., Prince, L., ... & Paskevicius, M. (2022, December). Truth and Reconciliation Through Inquiry-based Collaborative Learning. In *The Open/Technology in Education, Society, and Scholarship Association Conference* (Vol. 2, No. 1, pp. 1-8).
- Howell, R. A. (2021). Engaging students in education for sustainable development: The benefits of active learning, reflective practices and flipped classroom pedagogies. *Journal of Cleaner Production*, 325, 129318.
- Hsiao, J. C., Chen, S. K., Chen, W., & Lin, S. S. (2022). Developing a plugged-in class observation protocol in high-school blended STEM classes: Student engagement, teacher behaviors and student-teacher interaction patterns. *Computers & Education*, 178, 104403.
- Hsu, F. H., Lin, I. H., Yeh, H. C., & Chen, N. S. (2022). Effect of Socratic Reflection Prompts via video-based learning system on elementary school students' critical thinking skills. *Computers & Education*, 183, 104497.
- Hsu, T. C., Abelson, H., Lao, N., & Chen, S. C. (2021). Is it possible for young students to learn the AI-STEAM application with experiential learning?. *Sustainability*, 13(19), 11114.

- Husni, H. (2020). The Effect of Inquiry-based Learning on Religious Subjects Learning Activities: An Experimental Study in High Schools. *Jurnal Penelitian Pendidikan Islam*, 8(1), 43-54.
- Idris, F., Zulkipli, I. N., Abdul-Mumin, K. H., Ahmad, S. R., Mitha, S., Rahman, H. A., ... & Naing, L. (2021). Academic experiences, physical and mental health impact of COVID-19 pandemic on students and lecturers in health care education. *BMC Medical Education*, 21, 1-13.
- Indriayu, M. (2019). Effectiveness of Experiential Learning-Based Teaching Material in Mathematics. *International Journal of Evaluation and Research in Education*, 8(1), 57-63.
- Inganah, S., Darmayanti, R., & Rizki, N. (2023). Problems, Solutions, and Expectations: 6C Integration of 21 st Century Education into Learning Mathematics. *JEMS: Jurnal Edukasi Matematika Dan Sains*, 11(1), 220-238.
- Ionescu, C. A., Paschia, L., Gudanescu Nicolau, N. L., Stanescu, S. G., Neacsu Stancescu, V. M., Coman, M. D., & Uzlaui, M. C. (2020). Sustainability analysis of the e-learning education system during pandemic period—COVID-19 in Romania. *Sustainability*, 12(21), 9030.
- Isa, N. S. M., Mansor, N. A., Zamri, N., & Ab Rahman, L. (2021). Measuring perceived stress and burnout during Open and Distance Learning (ODL). *Insight Journal*.
- Ishbaeva, N. A. (2023). Social Need for Re-Training of Teachers. *European International Journal of Pedagogics*, 3(01), 5-11.
- Islam, M., Kim, D. A., & Kwon, M. (2020). A comparison of two forms of instruction: Pre-recorded video lectures vs. live ZOOM lectures for education in the business management field. *Sustainability*, 12(19), 8149.
- Ismailova, Z. K., Khimmataliev, D. O., Khashimova, M. K., Baybaeva, M. K., & Ergashev, B. B. (2020). Integrative approach to designing the



#### GRADUATE SCHOOL RESEARCH JOURNAL

content of secondary specialized vocational education. *Opción: Revista de Ciencias Humanas y Sociales*, (91), 25-41..

- Ismajli, H., & Imami-Morina, I. (2018). Differentiated Instruction: Understanding and Applying Interactive Strategies to Meet the Needs of All the Students. *International journal of Instruction*, 11(3), 207-218.
- Ismajli, H., & Krasniqi, B. (2022). Constructivist instruction practices in Kosovo primary education: The field of languages and communication curriculum. *Journal of Social Studies Education Research*, 13(1), 259-281.
- Ismajli, H., & Krasniqi, B. (2022). Constructivist instruction practices in Kosovo primary education: The field of languages and communication curriculum. *Journal of Social Studies Education Research*, 13(1), 259-281.
- Ismoilova, N. (2021). Pedagogical Bases of Preparing Children For School. *Middle European Scientific Bulletin*, 9.
- Jacobs, B. (2022). Self-regulation and inquiry-based learning in the primary classroom. Canadian Scholars' Press.
- Jaggars, S. S., Motz, B. A., Rivera, M. D., Heckler, A., Quick, J. D., Hance, E. A., & Karwisch, C. (2021). The Digital Divide among College Students: Lessons Learned from the COVID-19 Emergency Transition. Policy Report. Midwestern Higher Education Compact.
- Jang, S. (2022, March). Video-based Reflective Practice (VRP): A Practical Methodology for Reflective Practice in Music Therapy Training and Clinical Supervision. In *Voices: A World Forum for Music Therapy* (Vol. 22, No. 1).
- Jaswal, P., & Behera, B. (2023). Blended matters: Nurturing critical thinking. E-Learning and digital Media, 20427530231156184.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Jesionkowska, J., Wild, F., & Deval, Y. (2020). Active learning augmented reality for STEAM education—A case study. *Education Sciences*, 10(8), 198.
- Johnsen, S. K., & Goree, K. K. (2021). Teaching gifted students through independent study. In *Methods and materials for teaching the gifted* (pp. 445-478). Routledge.
- Jones, E., Samra, R., & Lucassen, M. (2023). Key challenges and opportunities around wellbeing for distance learning students: the online law school experience. *Open Learning: The Journal of Open, Distance and e-Learning*, 38(2), 117-135.
- Kalmar, E., Aarts, T., Bosman, E., Ford, C., de Kluijver, L., Beets, J., ... & van der Sanden, M. (2022). The COVID-19 paradox of online collaborative education: when you cannot physically meet, you need more social interactions. *Heliyon*, 8(1), e08823.
- Kang, J. (2022). Interrelationship between inquiry-based learning and instructional quality in predicting science literacy. *Research in Science Education*, 52(1), 339-355.
- Karimova, S. (2022). IMPLEMENTATION OF INQUIRY-BASED LEARNING FOR TEACHING ENGLISH. *Scientific progress*, 3(3), 820-826.
- Kayii, N. E., & Akpomi, M. E. (2022). Constructivist Approaches: A Budding Paradigm for Teaching and Learning Entrepreneurship Education. *International Journal of Education, Teaching, and Social Sciences*, 2(1), 31-44.
- Kedraka, K., & Rotidi, G. (2017). University Pedagogy: A New Culture Is Emerging in Greek Higher Education. *International Journal of Higher Education*, 6(3), 147-153.
- Kelt, V., Briers, R., Britton, T., Brown, M. B., & Brook, K. (2022). Pedagogy, curriculum, teaching practices and teacher education in developing countries. *Computers and Education*, 5, 2456246.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Kenklies, K., & Friesen, N. (2021). What is pedagogy?. *ESHA Magazine*, 26-31.
- Khan, M., & Soomro, N. H. (2022). INTEGRATIVE APPROACH TO TEACHING ENGLISH: TEACHERS' PERSPECTIVES AND PRACTICES. *Pakistan Journal of Educational Research*, 5(2).
- Khan, R., Bashir, A., Basu, B. L., & Uddin, M. E. (2023). Teacher Initiatives for Technology Integration in Higher Education in Bangladesh. In *Local Research and Glocal Perspectives in English Language Teaching: Teaching in Changing Times* (pp. 195-212). Singapore: *Springer Nature Singapore*.
- Khan, S., Kambris, M. E. K., & Alfalahi, H. (2022). Perspectives of University Students and Faculty on remote education experiences during COVID-19-a qualitative study. *Education and information technologies*, 1-29.
- Khan, Z. H., & Abid, M. I. (2021). Distance learning in engineering education: Challenges and opportunities during COVID-19 pandemic crisis in Pakistan. *The International Journal of Electrical Engineering & Education*, 0020720920988493.
- Khassawneh, O., Mohammad, T., Ben-Abdallah, R., & Alabidi, S. (2022). The Relationship between Emotional Intelligence and Educators' Performance in Higher Education Sector. *Behavioral Sciences*, 12(12), 511.
- Kholmatova, Z. A. (2022). Forming a Culture of Dialogue-Based Relationships in Primary School Students is a Social Pedagogical Necessity. *Middle European Scientific Bulletin*, 22, 288-291
- KHUSNIK, S. M. (2021). Direct and indirect instruction in teaching conversation: a study in an out-of-class english language learning program (Doctoral dissertation, *UNIVERSITAS ISLAM NEGERI*).
- Kolb, A. Y., & Kolb, D. A. (2017). Experiential learning theory as a guide for experiential educators in higher education. *Experiential Learning & Teaching in Higher Education*, 1(1), 7-44.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- König, J., Bremerich-Vos, A., Buchholtz, C., & Glutsch, N. (2020). General pedagogical knowledge, pedagogical adaptivity in written lesson plans, and instructional practice among preservice teachers. *Journal of curriculum studies*, 52(6), 800-822.
- Körkkö, M. (2021). Towards meaningful reflection and a holistic approach: Creating a reflection framework in teacher education. *Scandinavian Journal of Educational Research*, 65(2), 258-275.
- Korkmaz, G., & Toraman, Ç. (2020). Are we ready for the post-COVID-19 educational practice? An investigation into what educators think as to online learning. *International Journal of Technology in Education and Science*, 4(4), 293-309.
- Kousloglou, M., Petridou, E., Molohidis, A., & Hatzikraniotis, E. (2023). Assessing Students' Awareness of 4Cs Skills after Mobile-Technology-Supported Inquiry-Based Learning. *Sustainability*, 15(8), 6725.
- Labrie, A., Mok, T., Tang, A., Lui, M., Oehlberg, L., & Poretski, L. (2022). Toward Video-Conferencing Tools for Hands-On Activities in Online Teaching. *Proceedings of the ACM on Human-Computer Interaction*, 6(GROUP), 1-22.
- Lam, P. L., Ng, H. K., Tse, A. H., Lu, M., & Wong, B. Y. (2021). eLearning technology and the advancement of practical constructivist pedagogies: Illustrations from classroom observations. *Education and Information Technologies*, 26, 89-101.
- Lapitan Jr, L. D., Chan, A. L. A., Sabarillo, N. S., Sumalinog, D. A. G., & Diaz, J. M. S. (2023). Design, implementation, and evaluation of an online flipped classroom with collaborative learning model in an undergraduate chemical engineering course. *Education for Chemical Engineers*, 43, 58-72.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- LaTour, K. A., & Noel, H. N. (2021). Self-directed learning online: An opportunity to binge. *Journal of Marketing Education*, 43(2), 174-188.
- Laursen, S. L., & Rasmussen, C. (2019). I on the prize: Inquiry approaches in undergraduate mathematics. *International Journal of Research in Undergraduate Mathematics Education*, 5, 129-146.
- Lazarus, S. S., Brookhart, S. M., Ghore, G., & Liu, K. K. (2022). Improving Local Assessment Practices for Students With Disabilities. *Journal of Special Education Leadership*, 35(2).
- Lee, I. (2019). Teacher written corrective feedback: Less is more. *Language Teaching*, 52(4), 524-536.
- Lee, L., & Chao, P. J. (2023). Perceptions of and Reflections on Aesthetic Education Training from the Perspective of Taiwanese Preschool Educators. *Education Sciences*, 13(1), 96.
- Lemaître, M. J., Ramírez, A., Baeza, P., & Blanco, C. (2021). Flexible Learning Pathways In Chilean Higher Education—Can A Bottom-Up Approach Work?.
- Li, Q., Li, Z., & Han, J. (2021). A hybrid learning pedagogy for surmounting the challenges of the COVID-19 pandemic in the performing arts education. *Education and Information Technologies*, 26(6), 7635-7655.
- Li, X., Muñiz, M., Chun, K., Tai, J., Guerra, F., & York, D. M. (2022). Inquiry-based activities and games that engage students in learning atomic orbitals. *Journal of chemical education*, 99(5), 2175-2181.
- Li, X., Xia, Q., Chu, S. K. W., & Yang, Y. (2022). Using Gamification to Facilitate Students' Self-Regulation in E-Learning: A Case Study on Students' L2 English Learning. *Sustainability*, 14(12), 7008.
- Li, Y., Krause, S., McLendon, A., & Jo, I. (2023). Teaching a geography field methods course amid the COVID-19 pandemic: Reflections and lessons learned. *Journal of Geography in Higher Education*, 47(2), 339-348.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Li, Y., Zhao, S., Ma, Q., Qian, C., & Lin, Q. (2019). A feature analysis of regional classroom teaching in the trend of interactive instruction. *Interactive Learning Environments*, 27(2), 137-162.
- Li, Z., & Li, L. (2019). An examination of kindergarten teachers' beliefs about creative pedagogy and their perceived implementation in teaching practices. *Thinking Skills and Creativity*, 32, 17-29.
- Liao, C. H., & Wu, J. Y. (2023). Learning analytics on video-viewing engagement in a flipped statistics course: Relating external video-viewing patterns to internal motivational dynamics and performance. *Computers & Education*, 197, 104754.
- Limon, M. R., Vallente, J. P. C., Chua, C. T., & Rustia, A. S. (2022). Situating curriculum in context: Using Glatthorn's Standards-Based Curriculum Development Model to contextualize food safety learning competencies. *Food Control*, 132, 108538.
- Lindner, K. T., Alnahdi, G. H., Wahl, S., & Schwab, S. (2019, July). Perceived differentiation and personalization teaching approaches in inclusive classrooms: perspectives of students and teachers. *In Frontiers in Education* (Vol. 4, p. 58). Frontiers Media SA.
- Liu, Z. Y., Lomovtseva, N., & Korobeynikova, E. (2020). Online learning platforms: Reconstructing modern higher education. *International Journal of Emerging Technologies in Learning (iJET)*, 15(13), 4-21.
- Llorent García, V. J., González Gómez, A. L., Farrington, D. P., & Zych, I. (2022). Improving literacy competence and social and emotional competencies in Primary Education through Cooperative Project-Based Learning. *Psicothema*.
- Loh, R. C. Y., & Ang, C. S. (2020). Unravelling Cooperative Learning in Higher Education: A Review of Research. *Research in Social Sciences and Technology*, 5(2), 22-39.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Long, H., Gao, S., Yang, L., & Chen, J. (2022). Do teaching practices and enjoyment of science matter to science achievement?. *Psychology in the Schools*, 59(2), 334-355.
- López, P., Torrance, M., Rijlaarsdam, G., & Fidalgo, R. (2017). Effects of direct instruction and strategy modeling on upper-primary students' writing development. *Frontiers in Psychology*, 8, 1054.
- Lozano, R., Barreiro-Gen, M., Lozano, F. J., & Sammalisto, K. (2019). Teaching sustainability in European higher education institutions: Assessing the connections between competences and pedagogical approaches. *Sustainability*, 11(6), 1602.
- Luna Scott, C. (2015). The Futures of Learning 3: What kind of pedagogies for the 21st century?.
- Luo, Z. (2022). Gamification for educational purposes: What are the factors contributing to varied effectiveness?. *Education and Information Technologies*, 27(1), 891-915.
- Lv, L. (2023). Curriculum Design Based on Big Ideas: Connotations and Implementation. In *The Frontier of Education Reform and Development in China: Articles from Educational Research* (pp. 59-73). Singapore: *Springer Nature Singapore*.
- Lyz, N., Lyz, A., Neshchadim, I., & Kompaniets, V. (2020, April). Blended Learning and Self-Reflection as Tools for Developing IT-Students' Soft Skills. In *2020 V International Conference on Information Technologies in Engineering Education (Inforino)* (pp. 1-4). IEEE.
- Majrashi, A., Khalil, A., Nagshabandi, E. A., & Majrashi, A. (2021). Stressors and coping strategies among nursing students during the COVID-19 pandemic: scoping review. *Nursing Reports*, 11(2), 444-459.
- Makri, A., Vlachopoulos, D., & Martina, R. A. (2021). Digital escape rooms as innovative pedagogical tools in education: a systematic literature review. *Sustainability*, 13(8), 4587.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Mallillin, L. L. D. (2022). Teaching and learning intervention in the educational setting: adapting the teacher theory model. *International Journal of Educational Innovation and Research*, 1(2), 99-121.
- Mallillin, L. L. D., Mendoza, L. C., Mallillin, J. B., Felix, R. C., & Lipayon, I. C. (2020). Implementation and readiness of online learning pedagogy: a transition to COVID 19 pandemic. *European Journal of Open Education and E-learning Studies*, 5(2).
- Mandouit, L., & Hattie, J. (2023). Revisiting “The Power of Feedback” from the perspective of the learner. *Learning and Instruction*, 84, 101718.
- Maragha, T., Dempster, L., Shuler, C., Lee, V., Mendes, V., & von Bergmann, H. (2023). Exploring students’ perspectives from two Canadian dental schools toward online learning experiences. *Journal of Dental Education*.
- Marini, A., Nafisah, S., Sekaringtyas, T., Safitri, D., Lestari, I., Suntari, Y., ... & Iskandar, R. (2022). Mobile Augmented Reality Learning Media with Metaverse to Improve Student Learning Outcomes in Science Class. *International Journal of Interactive Mobile Technologies*, 16(7).
- Markowitz, N. L., & Bouffard, S. M. (2022). Teaching with a social, emotional, and cultural lens: A framework for educators and teacher educators. *Harvard Education Press*.
- Marouli, C. (2021). Sustainability education for the future? Challenges and implications for education and pedagogy in the 21st century. *Sustainability*, 13(5), 2901.
- Martin, M., & Furiv, U. (2022). SDG-4: flexible learning pathways in higher education: from policy to practice: an international comparative analysis.
- Martins, R. M., & Gresse Von Wangenheim, C. (2022). Findings on Teaching Machine Learning in High School: A Ten-Year Systematic Literature Review. *Informatics in Education*.



#### GRADUATE SCHOOL RESEARCH JOURNAL

- Martins, R. M., & Gresse Von Wangenheim, C. (2022). Findings on Teaching Machine Learning in High School: A Ten-Year Systematic Literature Review. *Informatics in Education*.
- Mason, L., & Otero, M. (2021). Just How Effective is Direct Instruction?. *Perspectives on Behavior Science*, 44(2), 225-244.
- Masuku, M. M., Jili, N. N., & Sabela, P. T. (2021). Assessment as a pedagogy and measuring tool in promoting deep learning in institutions of higher learning. *International Journal of Higher Education*, 10(2), 274-283.
- McCallister, C. (2022). A Pedagogical Design for Human Flourishing: Transforming Schools with the McCallister Model. *Routledge*.
- Medero, G. S., & Albaladejo, G. P. (2020). The Use of a Wiki to Boost Open and Collaborative Learning in a Spanish University. *Knowledge Management & E-Learning*, 12(1), 1-17.
- Medic, B. (2022). Developing a Reflective Approach in Higher Education. *Central European Management Journal*, 30(4), 1481-1486.
- Mentzer, N. J., Isabell, T. M., & Mohandas, L. (2023). The impact of interactive synchronous HyFlex model on student academic performance in a large active learning introductory college design course. *Journal of Computing in Higher Education*, 1-28.
- Merle, J. L., Cook, C. R., Locke, J. J., Ehrhart, M. G., Brown, E. C., Davis, C. J., & Lyon, A. R. (2023). Teacher attitudes toward evidence-based practices: Exploratory and confirmatory analyses of the school-adapted evidence-based practice attitude scale. *Implementation Research and Practice*, 4, 26334895221151026.
- Merriam, S. B., & Tisdell, E. J. (2016). Basic qualitative research. Qualitative research: A guide to design and implementation. 4th ed. San Francisco, CA: Jossey-Bass.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Mifsud, D. (2023). Rethinking the concept of teacher education: a problematization and critique of current policies and practices. In *Teacher Education as an Ongoing Professional Trajectory: Implications for Policy and Practice* (pp. 1-23). Cham: *Springer International Publishing*.
- Mimouni, A. (2022). Using Mobile gamified quizzing for active learning: the effect of reflective class feedback on undergraduates' achievement. *Education and Information Technologies*, 1-24.
- Mishra, L., Gupta, T., & Shree, A. (2020). Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. *International Journal of Educational Research Open*, 1, 100012.
- Mohamed Abobaker, R., Sulaiman Alamri, M., Alshaery, B., & M Hamdan-Mansour, A. (2023). Impact of Jigsaw Cooperative Learning Strategy on academic achievement and opinion among Nursing Students. *Journal of Holistic Nursing and Midwifery*, 33(1), 43-51.
- Mohammed, S. H., & Kinyó, L. (2020). The role of constructivism in the enhancement of social studies education. *Journal of critical reviews*, 7(7), 249-256.
- Moh'd, S. S., Uwamahoro, J., Joachim, N., & Orodho, J. A. (2021). Assessing the Level of Secondary Mathematics Teachers' Pedagogical Content Knowledge. *Eurasia Journal of Mathematics, Science and Technology Education*, 17(6).
- Moradi, M., Liu, L., Luchies, C., Patterson, M. M., & Darban, B. (2018). Enhancing teaching-learning effectiveness by creating online interactive instructional modules for fundamental concepts of physics and mathematics. *Education Sciences*, 8(3), 109.
- Moreno-Guerrero, A. J., Rondon Garcia, M., Martinez Heredia, N., & Rodríguez-García, A. M. (2020). Collaborative learning based on harry potter for learning geometric figures in the subject of mathematics. *Mathematics*, 8(3), 369.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Moşteanu, N. R. (2021). Teaching and learning techniques for the online environment. how to maintain students' attention and achieve learning outcomes in a virtual environment using new technology. *International Journal of Innovative Research and Scientific Studies*, 4(4), 278-290.
- Mubaraq, Y. F., Maulida, H., Hermaniar, Y., & Rizky, L. (2023). Embracing WhatsApp Application as Emergency Remote Learning During Covid 19 Pandemic. *Riwayat: Educational Journal of History and Humanities*, 6(1).
- Muhammadaliyevich, N. A. (2022, January). Methods of ensuring integrative approach to teaching physics. In *Archive of Conferences* (pp. 19-21).
- Müller, A. M., Goh, C., Lim, L. Z., & Gao, X. (2021). Covid-19 emergency elearning and beyond: Experiences and perspectives of university educators. *Education Sciences*, 11(1), 19.
- Müller, C., & Mildenberger, T. (2021). Facilitating flexible learning by replacing classroom time with an online learning environment: A systematic review of blended learning in higher education. *Educational Research Review*, 34, 100394.
- Mundiri, A., & Hamimah, S. (2022). Early Childhood Behavior Management Strategy based on Fun Learning Environment. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 6(4), 2583-2595..
- Munna, A. S., & Kalam, M. A. (2021). Teaching and learning process to enhance teaching effectiveness: a literature review. *International Journal of Humanities and Innovation (IJHI)*, 4(1), 1-4.
- Mustaeva, G., Kurbanova, M., & Mamajanova, G. (2022). The Place and Role of using Pedagogical Technologies In Learning English. *Uzbek Scholar Journal*, 9, 191-193.
- Nadeak, B., & Naibaho, L. (2020). Video-Based Learning On Improving Students' learning Output. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(2), 44-54.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Ngao, A. I., Sang, G., & Kihwele, J. E. (2022). Understanding teacher educators' perceptions and practices about ICT integration in teacher education program. *Education Sciences*, 12(8), 549.
- Ngereja, B., Hussein, B., & Andersen, B. (2020). Does Project-Based Learning (PBL) promote student learning? A performance evaluation. *Education Sciences*, 10(11), 330.
- Nguyen, D., & Ng, D. (2020). Teacher collaboration for change: Sharing, improving, and spreading. *Professional development in education*, 46(4), 638-651.
- Nguyen, N. H., Tran, T. L. N., Nguyen, L. T., Nguyen, T. A., & Nguyen, M. T. (2022). The interaction patterns of pandemic-initiated online teaching: How teachers adapted. *System*, 105, 102755.
- Niemi, K. (2021). 'The best guess for the future?' Teachers' adaptation to open and flexible learning environments in Finland. *Education Inquiry*, 12(3), 282-300.
- Nizami, M. Z. I., Xue, V. W., Wong, A. W. Y., Yu, O. Y., Yeung, C., & Chu, C. H. (2023). Challenge-Based Learning in Dental Education. *Dentistry Journal*, 11(1), 14.
- Nørgård, R. T., & Hilli, C. (2022). Hyper-hybrid learning spaces in higher education. In *Hybrid learning spaces* (pp. 25-41). Springer, Cham.
- Nõuakas, K., Petjärv, B., Labanova, O., Retšnoi, V., & Uukkivi, A. (2023, March). Challenges of Hybrid Flexible (HyFlex) Learning on the Example of a University of Applied Sciences. In *Learning in the Age of Digital and Green Transition: Proceedings of the 25th International Conference on Interactive Collaborative Learning (ICL2022), Volume 1* (pp. 257-268). Cham: Springer International Publishing.
- Núñez-Canal, M., de Obesso, M. D. L. M., & Pérez-Rivero, C. A. (2022). New challenges in higher education: A study of the digital competence of

## GRADUATE SCHOOL RESEARCH JOURNAL

educators in Covid times. *Technological Forecasting and Social Change*, 174, 121270.

- Nurtanto, M., Kholifah, N., Masek, A., Sudira, P., & Samsudin, A. (2021). Crucial Problems in Arranged the Lesson Plan of Vocational Teacher. *International Journal of Evaluation and Research in Education*, 10(1), 345-354.
- O'Keefe, L., Rafferty, J., Gunder, A., & Vignare, K. (2020). Delivering High-Quality Instruction Online in Response to COVID-19: Faculty Playbook. *Online Learning Consortium*
- Oleksandr, F. (2022). Collaborative Learning In Formation Of Students' Social Skills. *Editorial Board*, 447.
- Onyema, E. M., Ogechukwu, U., Anthonia, E. C. D., & Deborah, E. C. (2019). Potentials of mobile technologies in enhancing the effectiveness of inquiry-based learning approach. *International Journal of Education (IJE)*, 2(01), 1-22.
- Orishev, J., & Burkhonov, R. (2021). Project for training professional skills for future teachers of technological education. *Mental Enlightenment Scientific-Methodological Journal*, 2021(2), 139-150.
- Orona, G. A., Li, Q., McPartlan, P., Bartek, C., & Xu, D. (2022). What predicts the use of interaction-oriented pedagogies? The role of self-efficacy, motivation, and employment stability. *Computers & Education*, 184, 104498.
- Otaya, L. G., Kartowagiran, B., & Retnawati, H. (2018). Construct validity pedagogy competency instrument of teaching and learning practice program (TLPP) students: Unidimensional confirmatory factor analysis. *International Journal of Advanced and Applied Sciences*, 5(8), 24-33.
- Ozcinar, Z., Orekhovskaya, N., Svintsova, M., Panov, E., Zamaraeva, E., & Khuziakhmetov, A. (2021). University Students' Views on the Application of

#### GRADUATE SCHOOL RESEARCH JOURNAL

Gamification in Distance Education. *International Journal of Emerging Technologies in Learning (iJET)*, 16(19), 4-15.

- Pallavi, D. R., Ramachandran, M., & Chinnasamy, S. (2022). An Empirical Study On Effectiveness of E-Learning Over Conventional Class Room Learning—A Case Study with Respect to Online Degree Programmes in Higher Education. *Recent trends in Management and Commerce*, 3(1), 25-33.
- Pandya, B., Patterson, L., & Cho, B. (2022). Pedagogical transitions experienced by higher education faculty members—“Pre-Covid to Covid”. *Journal of Applied Research in Higher Education*, 14(3), 987-1006.
- Panis, I., Setyosari, P., Kuswandi, D., & Yulianti, L. (2020). Design gamification models in higher education: A study in Indonesia. *International Journal of Emerging Technologies in Learning (iJET)*, 15(12), 244-255.
- Paolini, A. C. (2019). School counselors promoting college and career readiness for high school students. *Journal of School Counseling*, 17(2), n2.
- Paragae, I. P. N. S. (2023). Innovative Teaching Strategies in Teaching English as a Foreign Language. *English Teaching and Linguistics Journal (ETLiJ)*, 4(1), 1-9.
- Park, D., & Ramirez, G. (2022). Frustration in the classroom: Causes and strategies to help teachers cope productively. *Educational Psychology Review*, 1-29.
- Park, M., Jeong, M., Lee, M., & Cullen, L. (2020). Web-based experiential learning strategies to enhance the evidence-based-practice competence of undergraduate nursing students. *Nurse education today*, 91, 104466.
- Parsaiyan, S. F., & Gholami, H. (2023). Practicing to sing in chorus: Challenges and opportunities of collaborative inquiry-based learning

#### GRADUATE SCHOOL RESEARCH JOURNAL

in an Iranian EFL secondary school context. *Language Teaching Research*, 13621688231152037.

- Perri, P. F., Manoli, E., & Christofides, T. C. (2022). Assessing the effectiveness of indirect questioning techniques by detecting liars. *Statistical Papers*, 1-24.
- Pham, J. H., & Philip, T. M. (2021). Shifting education reform towards anti-racist and intersectional visions of justice: A study of pedagogies of organizing by a teacher of color. *Journal of the Learning Sciences*, 30(1), 27-51.
- Pherson-Geyser, M., de Villiers, R., & Kawai, P. (2020). The Use of Experiential Learning as a Teaching Strategy in Life Sciences. *International Journal of Instruction*, 13(3), 877-894.
- Phillips, J., & Wiesbauer, F. (2022). The flipped classroom in medical education: A new standard in teaching. *Trends in Anesthesia and Critical Care*.
- Pineda, J. L. D. L., Villanueva, R. L. D. D., & Tolentino, J. A. M. (2022). Virtual focus group discussions: The new normal way to promote reflective practice. *Reflective Practice*, 23(2), 190-202.
- Pischetola, M. (2022). Teaching novice teachers to enhance learning in the hybrid university. *Postdigital Science and Education*, 4(1), 70-92.
- Pitt, E., & Carless, D. (2022). Signature feedback practices in the creative arts: integrating feedback within the curriculum. *Assessment & Evaluation in Higher Education*, 47(6), 817-829.
- Plucker, J. A., Meyer, M. S., Karami, S., & Ghahremani, M. (2023). Room to Run: Using Technology to Move Creativity into the Classroom. In *Creative Provocations: Speculations on the Future of Creativity, Technology & Learning* (pp. 65-80). Cham: *Springer International Publishing*.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Pocaan, J. M. (2022). Exploring teaching strategies and challenges towards a holistic context-based special education teaching strategies program. *The Normal Lights*, 16(1), 29.
- Pokhrel, S., & Chhetri, R. (2021). A literature review on impact of COVID-19 pandemic on teaching and learning. *Higher education for the future*, 8(1), 133-141.
- Posti-Ahokas, H., Idriss, K., Hassan, M., & Isotalo, S. (2022). Collaborative professional practice for strengthening teacher educator identities in Eritrea. *Journal of Education for Teaching*, 48(3), 300-315.
- Potra, S., Pugna, A., Pop, M. D., Negrea, R., & Dungan, L. (2021). Facing COVID-19 challenges: 1st-year students' experience with the Romanian hybrid higher educational system. *International Journal of Environmental Research and Public Health*, 18(6), 3058.
- Prasetyo, T., Rachmadtullah, R., Samsudin, A., & Aliyyah, R. R. (2021). General Teachers' Experience of the Brain's Natural Learning Systems-Based Instructional Approach in Inclusive Classroom. *International Journal of Instruction*, 14(3), 95-116.
- Prinsloo, P. (2023). Learning Analytics in Open, Distance, and Digital Education (ODDE). *Handbook of Open, Distance and Digital Education*, 1021.
- Protner, E. (2021). Development of history of education as a school and study course in Slovenia through the reception of JF Herbart. *Paedagogica Historica*, 1-14.
- Putri, S., & Elihami, E. (2021). The concept andragogy and pedagogy: e-learning model during covid-19 pandemic. *Jurnal Edukasi Nonformal*, 2(1), 18-24.
- Qureshi, M. A., Khaskheli, A., Qureshi, J. A., Raza, S. A., & Yousufi, S. Q. (2021). Factors affecting students' learning performance through collaborative learning and engagement. *Interactive Learning Environments*, 1-21.



- Rabidjanovna, S. S., & Aburakhmatovich, E. K. (2021). Development trends in the subject of pedagogy and the education system. *Middle European Scientific Bulletin*, 11.
- Raes, A. (2022). Exploring Student and Teacher Experiences in Hybrid Learning Environments: Does Presence Matter?. *Postdigital Science and Education*, 4(1), 138-159.
- Raes, A., Detienne, L., Windey, I., & Depaepe, F. (2020). A systematic literature review on synchronous hybrid learning: gaps identified. *Learning Environments Research*, 23(3), 269-290.
- Rahiem, M. D. (2021). Remaining motivated despite the limitations: University students' learning propensity during the COVID-19 pandemic. *Children and youth services review*, 120, 105802.
- Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., & Koole, M. (2021). Balancing technology, pedagogy and the new normal: Post-pandemic challenges for higher education. *Postdigital Science and Education*, 3(3), 715-742.
- Rashidov, A. (2020). Development of creative and working with information competences of students in mathematics. *European Journal of Research and Reflection in Educational Sciences*, 8(3), 10-15.
- 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. *Journal of Ethnic and Cultural Studies*, 7(2), 90-109.
- Reimers, F. M. (2022). Learning from a pandemic. The impact of COVID-19 on education around the world. In *Primary and secondary education during COVID-19* (pp. 1-37). Springer, Cham.
- Renatovna, A. G., & Renatovna, A. S. (2021). Pedagogical and psychological conditions of preparing students for social relations on the basis of

#### GRADUATE SCHOOL RESEARCH JOURNAL

- the development of critical thinking. *Psychology and education*, 58(2), 4889-4902.
- Richter, E., Hußner, I., Huang, Y., Richter, D., & Lazarides, R. (2022). Video-based reflection in teacher education: Comparing virtual reality and real classroom videos. *Computers & Education*, 190, 104601.
- Rippé, C. B., Weisfeld-Spolter, S., Yurova, Y., & Kemp, A. (2021). Pandemic pedagogy for the new normal: Fostering perceived control during COVID-19. *Journal of Marketing Education*, 43(2), 260-276.
- Rizhniak, R., Pasichnyk, N., Zavitrenko, D., Akbash, K., & Zavitrenko, A. R. T. E. M. (2021). The Implementation of an Integrative Approach to Learning with the Use of Integrated Images. *Revista Romaneasca pentru Educatie Multidimensionala*, 13(1), 281-297.
- Rockman, D. A., Aderibigbe, J. K., Allen-Ile, C. O., Mahembe, B., & Hamman-Fisher, D. A. (2022). Working-class postgraduates' perceptions of studying while working at a selected university. *SA Journal of Human Resource Management*, 20, 14.
- Rocque, S. R. (2022). A Multivariate Analysis of Technology and Education in the 21st Century: Antecedents and Determinants.
- Røe, Y., Wojniusz, S., & Bjerke, A. H. (2022). The Digital Transformation of Higher Education Teaching: Four Pedagogical Prescriptions to Move Active Learning Pedagogy Forward. In *Frontiers in Education* (p. 583). Frontiers.
- Ross, S., Pirraglia, C., Aquilina, A. M., & Zulla, R. (2022). Effective competency-based medical education requires learning environments that promote a mastery goal orientation: A narrative review. *Medical Teacher*, 44(5), 527-534.
- Rothe, J., & Schöneburg-Lehnert, S. (2022, February). Near and far transfer in the flipped mathematics classroom: student's evaluation of learning activities. In *Twelfth Congress of the European Society for Research in Mathematics Education (CERME12)*.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Ruzaman, N. (2020). Inquiry-based education: Innovation in participatory inquiry paradigm. *International Journal of Emerging Technologies in Learning (iJET)*, 15(10), 4-15.
- Sablić, M., Mirosavljević, A., & Škugor, A. (2021). Video-based learning (VBL)—past, present and future: An overview of the research published from 2008 to 2019. *Technology, Knowledge, and Learning*, 26(4), 1061-1077.
- Sachyani, D., Waxman, P. T., Sadeh, I., Herman, S., Levi Ferber, M., Yaacobi, M., ... & Zion, M. (2023). Teachers' views of Future-Oriented Pedagogy as part of inquiry-based molecular biology teaching in high school biology laboratories. *Journal of Biological Education*, 1-22.
- Safta-Zecheria, L., Negru, I. A., & Virag, F. H. (2020). Challenges experienced by teachers regarding access to digital instruments, resources, and competences in adapting the educational process to physical distancing measures at the onset of the COVID-19 pandemic in Romania. *Journal of Educational Sciences*, 21, 69-86.
- Sahu, P. K., Dalcik, H., Dalcik, C., Gupta, M. M., Chattu, V. K., & Umakanthan, S. (2022). Best practices for effective implementation of online teaching and learning in medical and health professions education: during COVID-19 and beyond. *AIMS public health*, 9(2), 278.
- Salas-Pilco, S. Z., Yang, Y., & Zhang, Z. (2022). Student engagement in online learning in Latin American higher education during the COVID-19 pandemic: A systematic review. *British Journal of Educational Technology*, 53(3), 593-619.
- Salcedo, M. M. M (2022). Pedagogical Practices of Hospitality Management Faculty Members.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Saleh, S. E. (2019). Critical thinking as a 21st century skill: conceptions, implementation and challenges in the EFL classroom. *European Journal of Foreign Language Teaching*.
- Salih, A. A., & Omar, L. I. (2022). Reflective teaching in EFL online classrooms: Teachers' perspective. *Journal of Language Teaching and Research*, 13(2), 261-270.
- Salleh, S. M., Sari, N. A. M., Hassan, N., Yusof, M. M., & Salleh, N. F. (2022). Conceptualizing Instructional Strategies Towards Communication Competence Among UiTM Students. *Global Business & Management Research*, 14(1).
- Samarasekara, C. K., Ott, C., & Robins, A. (2022, November). Teachers' Views on the Implementation of a New High School Computing Curriculum. In *Proceedings of the 22nd Koli Calling International Conference on Computing Education Research* (pp. 1-10).
- Sandri, O. (2022). What do we mean by 'pedagogy' in sustainability education?. *Teaching in Higher Education*, 27(1), 114-129.
- Sato, M., & Loewen, S. (2019). Do teachers care about research? The research–pedagogy dialogue. *ELT Journal*, 73(1), 1-10.
- Schoenau-Fog, H., & Kofoed, L. B. (2019, October). Designing a Multi-Campus Game Development Course With Hybrid Synchronous and Asynchronous Learning Environments Using Video Conference Systems. In *European Conference on Games Based Learning* (pp. 621-XXII). *Academic Conferences International Limited*
- Scogin, S. C., Marks, M., Mader, C., & Phillips, K. (2023). Building motivationally supportive course-based research experiences for undergraduates: a self-determination theory perspective. *Higher Education Pedagogies*, 8(1), 2165528.
- Scott, C. L. (2015). The futures of learning 3: What kind of Pedagogies.
- Searles, B. (2022). Student-Centered Learning in the Social Studies Classroom: Effective Strategies that Build Critical Thinking.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Seatter, C.S.; Ceulemans, K. (2017). Teaching Sustainability in Higher Education: Pedagogical Styles that Make a Difference. *Can. J. High. Educ.* 2, 47, 47–70.
- Senthamarai, S. (2018). Interactive teaching strategies. *Journal of Applied and Advanced Research*, 3(1), S36-S38.
- Serdyukov, P. (2015). Does online education need a special pedagogy?. *Journal of computing and information technology*, 23(1), 61-74.
- Seyoum, Y., & Molla, S. (2022). Teachers' and Students' Roles in Promoting Cooperative Learning at Haramaya, Dire Dawa, and Jigjiga Universities, Ethiopia. *Education Research International*, 2022.
- Sh, T. (2022). General Didactic Principles of Pedagogical Technologies. *Journal of Pedagogical Inventions and Practices*, 6, 94-97.
- Shah, R. K. (2019). Effective constructivist teaching learning in the classroom. Shah, RK (2019). Effective Constructivist Teaching Learning in the Classroom. *Shanlax International Journal of Education*, 7(4), 1-13.
- Shah, R. K., & Campus, S. (2021). Conceptualizing and defining pedagogy. *IOSR Journal of Research & Method in Education*, 11(1), 6-29.
- Shaked, L., & Altarac, H. (2023). The possible contribution of procrastination and perception of self-efficacy to academic achievement. *Journal of Further and Higher Education*, 47(2), 197-214.
- Shepard, L. A. (2019). Classroom assessment to support teaching and learning. *The ANNALS of the American Academy of Political and Social Science*, 683(1), 183-200.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Shim, L. (2020). The Impact of Direct Instruction at English Learner Instructional Sites Compared to Indirect Instruction at English Learner Support Sites (Doctoral dissertation, Lindenwood University).
- Shukla, B., Joshi, M., Sujatha, R., Beena, T., & Kumar, H. (2022). Demystifying Approaches of Holistic and Multidisciplinary Education for Diverse Career Opportunities: NEP 2020. *Indian Journal of Science and Technology*, 15(14), 603-607.
- Silén-Lipponen, M., Äijö, M., & Aura, S. (2022). Evaluation of Simulation Scenarios in a Bachelor's Degree Programme in Nursing: A Cross-Sectional Study. *J Nurs Pract*, 5(1), 480-487.
- Silver, D. (2022). A theoretical framework for studying teachers' curriculum supplementation. *Review of Educational Research*, 92(3), 455-489.
- Simamora, R. M. (2020). The Challenges of online learning during the COVID-19 pandemic: An essay analysis of performing arts education students. *Studies in Learning and Teaching*, 1(2), 86-103.
- Singh, J. (2020). The study of the effectiveness of the inquiry based learning method in chemistry teaching learning process. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 11(3), 867-875.
- Singh, J., Evans, E., Reed, A., Karch, L., Qualey, K., Singh, L., & Wiersma, H. (2022). Online, hybrid, and face-to-face learning through the eyes of faculty, students, administrators, and instructional designers: Lessons learned and directions for the post-vaccine and post-pandemic/COVID-19 world. *Journal of Educational Technology Systems*, 50(3), 301-326.
- Singh, J., Singh, L., & Matthees, B. (2022). Establishing social, cognitive, and teaching presence in online learning—A panacea in COVID-19 pandemic, post vaccine and post pandemic times. *Journal of Educational Technology Systems*, 51(1), 28-45.
- Singh, J., Steele, K., & Singh, L. (2021). Combining the best of online and face-to-face learning: Hybrid and blended learning approach for

**GRADUATE SCHOOL RESEARCH JOURNAL**

COVID-19, post vaccine, & post-pandemic world. *Journal of Educational Technology Systems*, 50(2), 140-171.

- Singhal, R., Kumar, A., Singh, H., Fuller, S., & Gill, S. S. (2021). Digital device-based active learning approach using virtual community classroom during the COVID-19 pandemic. *Computer Applications in Engineering Education*, 29(5), 1007-1033.
- Smagorinsky, P. (2019). Inquiry and service-learning in teacher education. An invitation to inquiry: Possibilities for immersive literacy processes, 119-136.
- Soonjan, J., & Kaewkhong, K. (2022). Elementary science teachers' understanding of inquiry-based teaching and self-evaluation of their practices: A Case Study from Thailand. *International Journal of Innovation in Science and Mathematics Education*, 30(1).
- Spernes, K., & Afdal, H. W. (2021). Scientific methods assignments as a basis for developing a profession-oriented inquiry-based learning approach in teacher education. *European Journal of Teacher Education*, 1-15.
- Spikic, S., Van Passel, W., Deprez, H., & De Meester, J. (2022). Measuring and Activating iSTEM Key Principles among Student Teachers in STEM. *Education Sciences*, 13(1), 12.
- Srinivasan, S., Ramos, J. A. L., & Muhammad, N. (2021). A flexible future education model—strategies drawn from teaching during the covid-19 pandemic. *Education Sciences*, 11(9), 557.
- Stadler, A., Alberton, A., & Smith, A. M. (2022). Entrepreneurship education in Brazil: Brazilian and Scottish approaches to policy and provision in vocational education. *Journal of Small Business and Enterprise Development*, 29(4), 645-662.
- Stockard, J. (2021). Building a more effective, equitable, and compassionate educational system: The role of direct instruction. *Perspectives on Behavior Science*, 44(2), 147-167.

- Stockard, J., Wood, T. W., Coughlin, C., & Khoury, C. R. (2020). All students can succeed: A half century of research on the effectiveness of Direct Instruction.
- Su, J., Zhong, Y., & Ng, D. T. K. (2022). A meta-review of literature on educational approaches for teaching AI at the K-12 levels in the Asia-Pacific region. *Computers and Education: Artificial Intelligence*, 100065.
- Sudira, P., Nurtanto, M., Masrifah, N., Nurdianah, E., & Mutohhari, F. (2022). Online Project-Based Learning (O-PjBL): Effectiveness in Teachers Training and Coaching in Vocational Education. *Journal of Education Technology*, 6(2).
- Sufirmansyah, S., Prameswati, L. N., Wati, D. T., & Sulistyowati, E. (2021). Student's Preferences in Using Video-Based Learning Applications and Its Efficiency in Higher Education. *Nazhruna: Jurnal Pendidikan Islam*, 4(2), 272-283.
- Suhendi, A., Purwarno, P., & Chairani, S. (2021). Constructivism-based teaching and learning in Indonesian education. *KnE Social Sciences*, 76-89.
- Suman, R. S., Moccia, S., Chinnusamy, K., Singh, B., & Regin, R. (Eds.). (2023). Handbook of research on learning in language classrooms through ICT-based digital technology. *IGI Global*.
- Sumandiyar, A., Husain, M. N., Genggong, M. S., Nanda, I., & Fachruddin, S. (2021). The effectiveness of hybrid learning as instructional media amid the COVID-19 pandemic. *Jurnal Studi Komunikasi*, 5(3), 651-664.
- Sumarni, W., & Kadarwati, S. (2020). Ethno-stem project-based learning: Its impact to critical and creative thinking skills. *Jurnal Pendidikan IPA Indonesia*, 9(1), 11-21.



#### GRADUATE SCHOOL RESEARCH JOURNAL

- Sun, X., & Hu, G. (2020). Direct and indirect data-driven learning: An experimental study of hedging in an EFL writing class. *Language Teaching Research*, 1362168820954459.
- Supena, I., Darmuki, A., & Hariyadi, A. (2021). The Influence of 4C (Constructive, Critical, Creativity, Collaborative) Learning Model on Students' Learning Outcomes. *International Journal of Instruction*, 14(3), 873-892.
- Supriani, Y., Meliani, F., Supriyadi, A., Supiana, S., & Zaqiah, Q. Y. (2022). The Process of Curriculum Innovation: Dimensions, Models, Stages, and Affecting Factors. *Nazhruna: Jurnal Pendidikan Islam*, 5(2), 485-500.
- Susilawati, E., Lubis, H., Kesuma, S., & Pratama, I. (2022). Antecedents of Student Character in Higher Education: The role of the Automated Short Essay Scoring (ASES) digital technology-based assessment model. *Eurasian Journal of Educational Research*, 98(98), 203-220.
- Swartz, B. C., Valentine, L. Z., & Jaftha, D. V. (2022). Participatory parity through teaching with Telegram. *Perspectives in Education*, 40(1), 96-111.
- Swendseid, E. (2022). Unlocking Math Minds: Using Inquiry-based Instruction to Increase Student Engagement and Learning in a Third Grade Classroom.
- Syamsul, M. A. (2018). Education as a Foundation of Humanity: Learning from the Pedagogy of Pesantren in Indonesia. *Journal of Social Studies Education Research*, 9(2), 104-123.
- Syson, K. (2023). Declining Teacher Wellness: A Case Study on Elementary Teachers' Perceptions of Leadership Strategies That Positively Impact Wellness.
- Szobonya, P., & Roche, C. M. (2023). Virtual Exchange Experiences Energized by an Educational Technology Paradigm Shift. In

## GRADUATE SCHOOL RESEARCH JOURNAL

Handbook of Research on Current Trends in Cybersecurity and Educational Technology (pp. 267-297). *IGI Global*.

- Tairovna, R. N. (2022). The role of independent work in the studying a foreign language at a university. *Asian Journal of Multidimensional Research*, 11(2), 84-89.
- Talosa, A. D., Javier, B. S., & Dirain, E. L. (2021). The flexible-learning journey: phenomenological investigation of self-efficacy influencing factors among higher education students. *Linguistics and Culture Review*, 5(S3), 422-434.
- Tangatov, B. B. (2022). Using integrative approach to the teaching process of a foreign language. *Science and Education*, 3(3), 756-761.
- Tarrayo, V. N., Paz, R. M. O., & Gepila Jr, E. C. (2023). The shift to flexible learning amidst the pandemic: the case of English language teachers in a Philippine state university. *Innovation in Language Learning and Teaching*, 17(1), 130-143.
- Terenko, O., & Ogienko, O. (2020). How to Teach Pedagogy Courses Online at University in COVID-19 Pandemic: Search for Answers. *Romanian Journal for Multidimensional Education/Revista Romaneasca pentru Educatie Multidimensionala*, 12.
- Tigranovna, M. E. (2022). Hybrid learning Incorporated in Higher Education generates more informal learning. *Педагогика и просвещение*, (1), 116-125.
- Timizar-Le Pen, T., Marchand, C., Léocadie, M., & Rothan-Tondeur, M. (2020). Reflective writing: Implementation and learning perception from students and teachers of French nursing schools. *Nurse education in practice*, 49, 102921.
- Tiradentes Souto, V., Ramos Fragelli, R., & Henrique Veneziano, W. (2020). Designing an innovative collaborative learning application: the case of method 300. In Design, User Experience, and Usability. Case Studies in Public and Personal Interactive Systems: 9th International Conference, DUXU 2020, Held as Part of the 22nd HCI International Conference, HCII 2020, Copenhagen, Denmark, July 19–24, 2020,

**GRADUATE SCHOOL RESEARCH JOURNAL**

Proceedings, Part III 22 (pp. 552-565). *Springer International Publishing*.

- Tirri, K., & Toom, A. (2020). The moral role of pedagogy as the science and art of teaching. *Pedagogy in basic and higher education: Current developments and challenges*, 3-13.
- Toom, A., & Husu, J. (2016). Finnish teachers as 'makers of the many': Balancing between broad pedagogical freedom and responsibility. In *Miracle of education* (pp. 41-55). Brill.
- Torre, I., Galluccio, I., & Coccoli, M. (2022, June). Video augmentation to support video-based learning. In *Proceedings of the 2022 International Conference on Advanced Visual Interfaces* (pp. 1-5).
- Tran, V. D. (2019). Does Cooperative Learning Increase Students' Motivation in Learning?. *International Journal of Higher Education*, 8(5), 12-20.
- Treceña, J. K. D. (2022). COVID-19 and Remote Learning in the Philippine Basic Education System: Experiences of Teachers, Parents, and Students. In *Socioeconomic Inclusion During an Era of Online Education* (pp. 92-110). *IGI Global*.
- Trentin, G. (2015). Orientating pedagogy towards hybrid learning spaces. *Progress in education*, 35, 105-124.
- Tsegay, S. M., Ashraf, M. A., Perveen, S., & Zegergish, M. Z. (2022). Online teaching during COVID-19 pandemic: Teachers' experiences from a Chinese university. *Sustainability*, 14(1), 568.
- Tus, J. (2020). Self-concept, self-esteem, self-efficacy and academic performance of the senior high school students. *International Journal of Research Culture Society*, 4(10), 45-59.
- Tyas, E. H., & Naibaho, L. (2021). HOTS learning model improves the quality of education. *International Journal of Research-GRANTHAALAYAH*, 9(1), 176-182.
- UNESCO (2021). *When schools shut: Gendered impacts of COVID-19 school closures*. Paris.

## GRADUATE SCHOOL RESEARCH JOURNAL

- United Nations (2020). Policy Brief: Education during COVID-19 and beyond.
- Ukata, P. F., Wechie, N., & Nmehielle, E. L. (2017). Instructional strategies and teaching of business education in higher institutions in Rivers State. *International Journal of Education and Evaluation*, 3(9), 20-36.
- Usanov, F., & Qayumov, B. (2020). The eight ways to advance pedagogy to the next level. *Mental Enlightenment Scientific-Methodological Journal*, 2020(1), 181-190.
- Vanhorn, S., Ward, S. M., Weismann, K. M., Crandall, H., Reule, J., & Leonard, R. (2019). Exploring active learning theories, practices, and contexts. *Communication research trends*, 38(3), 5-25.
- Vargas-Hernández, J. G., & Vargas-González, O. C. (2022). Strategies for meaningful learning in higher education. *Journal of Research in Instructional*, 2(1), 47-64.
- Varman, S. D., Cliff, D. P., Jones, R. A., Hammersley, M. L., Zhang, Z., Charlton, K., & Kelly, B. (2021). Experiential learning interventions and healthy eating outcomes in children: a systematic literature review. *International journal of environmental research and public health*, 18(20), 10824.
- Veine, S., Anderson, M. K., Andersen, N. H., Espenes, T. C., Søyland, T. B., Wallin, P., & Reams, J. (2020). Reflection as a core student learning activity in higher education-Insights from nearly two decades of academic development. *International Journal for Academic Development*, 25(2), 147-161.
- Veletsianos, G., Kimmons, R., Larsen, R., & Rogers, J. (2021). Temporal flexibility, gender, and online learning completion. *Distance Education*, 42(1), 22– 36. doi:10.1080/01587919.2020.18695 23
- Villabona, N., & Cenoz, J. (2022). The integration of content and language in CLIL: a challenge for content-driven and language-driven teachers. *Language, Culture and Curriculum*, 35(1), 36-50.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Vladova, G., Ullrich, A., Bender, B., & Gronau, N. (2021). Students' acceptance of technology-mediated teaching—how it was influenced during the COVID-19 pandemic in 2020: a study from Germany. *Frontiers in Psychology, 12*, 636086.
- Wale, B. D., & Bishaw, K. S. (2020). Effects of using inquiry-based learning on EFL students' critical thinking skills. *Asian-Pacific Journal of Second and Foreign Language Education, 5*, 1-14.
- Wang, H. H., Charoenmuang, M., Knobloch, N. A., & Tormoehlen, R. L. (2020). Defining interdisciplinary collaboration based on high school teachers' beliefs and practices of STEM integration using a complex designed system. *International Journal of STEM Education, 7*(1), 1-17.
- Waters, C. C., & Orange, A. (2022). STEM-driven school culture: Pillars of a transformative STEM approach. *Journal of Pedagogical Research, 6*(2), 72-90.
- Weinberger, Y., & Shonfeld, M. (2020). Students' willingness to practice collaborative learning. *Teaching Education, 31*(2), 127-143.
- Winarno, S., Muthu, K. S., & Ling, L. S. (2018). Direct Problem-Based Learning (DPBL): A Framework for Integrating Direct Instruction and Problem-Based Learning Approach. *International Education Studies, 11*(1), 119-126.
- Woodcock, S., Sharma, U., Subban, P., & Hitches, E. (2022). Teacher self-efficacy and inclusive education practices: Rethinking teachers' engagement with inclusive practices. *Teaching and Teacher Education, 117*, 103802.
- Wu, M. Y. M., & Yeziarski, E. J. (2022). Pedagogical chemistry sensemaking: a novel conceptual framework to facilitate pedagogical sensemaking in model-based lesson planning. *Chemistry Education Research and Practice, 23*(2), 287-299.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Wulandari, Y. (2022). Effective feedback to improve students' writing skills. *Educalitra: English Education, Linguistics, and Literature Journal*, 1(1), 10-17.
- Xie, H., Chu, H. C., Hwang, G. J., & Wang, C. C. (2019). Trends and development in technology-enhanced adaptive/personalized learning: A systematic review of journal publications from 2007 to 2017. *Computers & Education*, 140, 103599.
- Yang, B., & Huang, C. (2021). Turn crisis into opportunity in response to COVID-19: experience from a Chinese University and future prospects. *Studies in Higher Education*, 46(1), 121-132.
- Yang, M., Zhan, Y., Chan, T. N. C., Lee, L. M., Chan, K. W., Yung, K. W. H., & Wan, Z. H. (2023). 8 Building communities of inquiry for student teachers. *Educating Teachers Online in Challenging Times: The Case of Hong Kong*, 131.
- Yang, Y. (2022, January). Kindergarten Teachers' Consciousness and Action of Autonomous Professional Development. In 2022 11th *International Conference on Educational and Information Technology (ICEIT)* (pp. 206-209). IEEE.
- Yansyah, M. (2022). The Effectiveness of Teacher Performance Management in the Implementation of Student Learning. *Journal Corner of Education, Linguistics, and Literature*, 1(4), 227-234.
- Yasmin, H., Khalil, S., & Mazhar, R. (2020). COVID 19: Stress management among students and its impact on their effective learning. *International technology and education journal*, 4(2), 65-74.
- Yates, A., Starkey, L., Egerton, B., & Flueggen, F. (2021). High school students' experience of online learning during Covid-19: the influence of technology and pedagogy. *Technology, Pedagogy and Education*, 30(1), 59-73.
- Yee, S., & Rogers, K. C. (2022). Research to Practice Sampler: Sustained Support for Teaching Assistants. *Journal of the California Mathematics Project*, 11, 45-48.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Yildiz Durak, H. (2022). Role of personality traits in collaborative group works at flipped classrooms. *Current Psychology*, 1-21.
- Yoshihara, R., Kurata, A., & Yamauchi, A. (2020). Reflective journals to explore struggles and difficulties of novice Japanese EFL university instructors. *Reflective Practice*, 21(1), 81-93.
- Yousaf, H. (2023). The Role of Motivational Techniques and Strategies Used by Teachers to English Language Classroom at Secondary School Level. *Journal of Pedagogy and Education Science*, 2(01), 35-47.
- Yu, M. (2022). Technology-Enhanced Education: Improving Students' Learning Experience in the Higher Education Context. *The Wiley Handbook of Sustainability in Higher Education Learning and Teaching*, 133-151.
- Yuldasheva, D. (2021). Integrative Approach in the School Education Process. *центр научных публикаций (buxdu. uz)*, 8(8).
- Yusuf, Q., Jusoh, Z., & Yusuf, Y. Q. (2019). Cooperative Learning Strategies to Enhance Writing Skills among Second Language Learners. *International Journal of Instruction*, 12(1), 1399-1412.
- Zain, F. M., Sailin, S. N., & Mahmor, N. A. (2022). Promoting Higher Order Thinking Skills among Pre-Service Teachers through Group-Based Flipped Learning. *International Journal of Instruction*, 15(3), 519-542.
- Zainuddin, Z., Haruna, H., Li, X., Zhang, Y., & Chu, S. K. W. (2019). A systematic review of flipped classroom empirical evidence from different fields: what are the gaps and future trends?. *On the Horizon*.
- Zehr, S. M., & Korte, R. (2020). Student internship experiences: learning about the workplace. *Education+ Training*, 62(3), 311-324.
- Zeyab, A., & Alayyar, G. M. (2023). Perspective Chapter: Education Technology (EdTech) and the Online Course Revolution. In Higher Education-Reflections From the Field. *IntechOpen*.

#### GRADUATE SCHOOL RESEARCH JOURNAL

- Zhan, Y., Wan, Z. H., & Sun, D. (2022). Online formative peer feedback in Chinese contexts at the tertiary Level: A critical review on its design, impacts and influencing factors. *Computers & Education*, 176, 104341.
- Zhao, Q., & Zhang, X. (2020). The Importance of Teachers' Instructions in Middle School English Classrooms. *Biographical Sketch*.
- Zimmer, M. L. (2022). Landscape in Teaching. Experiencing and Learning from and in Landscapes at School with the Support of an eBook. In *The Social Construction of Landscapes in Games* (pp. 377-394). Wiesbaden: *Springer Fachmedien Wiesbaden*.
- Zion, M., Schwartz, R. S., Rimerman-Shmueli, E., & Adler, I. (2020). Supporting teachers' understanding of nature of science and inquiry through personal experience and perception of inquiry as a dynamic process. *Research in Science Education*, 50, 1281–1304.
- Zirak Haseeb Chicho, K. (2021). Embodied learning implementation in EFL classroom: A qualitative study. *International Journal of Social Sciences & Educational Studies*, 8(1), 51-58.
- Zubaydi, H. D., Varga, P., & Molnár, S. (2023). Leveraging Blockchain Technology for Ensuring Security and Privacy Aspects in Internet of Things: A Systematic Literature Review. *Sensors*, 23(2), 788.