ISSN 2962-5548
https://doi.org/10.56773/ejer.v1i2.6
Eureka: Journal of Educational Research, 1(2), 41-52

Instructional design for effective classroom pedagogy of teaching

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Received: August 29, 2022
Revised: January 9, 2023
Accepted: January 16, 2023

Abstract

The study aims to examine the contribution of instructional design for effective classroom pedagogy of teaching among the respondents and identifies what makes instructional design that leads to effective classroom pedagogy of teaching among the respondents. The research employs the descriptive quantitative design because the method describes the variables and characteristics of the study. Purposive sampling is highlighted in the study. The study comprised Seventy (70) respondents only. Results show that learning process and strategy for effective pedagogy of teaching show to actively involve instruction that will lead students for better learning outcome, show to involve critical thinking, formation, analyzing inferences, and knowledge of the lesson, show to provide a phase of instructional design to effective teaching in applying, inferring, analyzing pedagogy and various learning experiences, show to advance technology of teaching to equip students with better learning, and show to rely on interactive instruction sharing and heavy discussion, role playing, peer learning, cooperative learning, simulation, and discussion. Findings show that there is a significant correlation on the contribution of instructional design for effective classroom pedagogy of teaching as observed among the respondents.

Keywords

Effective classroom, instructional design, pedagogy of teaching.

INTRODUCTION

The foundation of instructional design is a challenge among curriculum designers in the various educational institutions. It is a complex task in comprehending and understanding the process especially among teachers. The approach is built on development and leading instructional design for effective creation of teaching plans to a group of learners. It is necessary to ensure learners' instructions for meaningful and effective concepts in understanding the topic to be taught. Simply, creation of instructional design material in teaching carefully considers the needs of the learners' achievement of academic goals. It is the focused of the process of learning and transition [1]. The instructional design is a principle to be considered tools for education, design, and delivery to various learning processes. It is considered as creative

thinking and essential for student learning and foundation. Providing instructional strategies and existence, learners can promote creative thinking through material designs being implemented. It addresses the approach of instructional strength and integration design to promote and develop a series of activities and learning context. It develops and designs learning activities for authentic effective classroom teaching pedagogy and experiences [2]. On the other hand, instructional design processes the success and competency of teaching among students. Instructional design and competency are abilities, skills, and knowledge of professional roles and needs in the teaching process. It is a standard aspect in effective teaching among teacher professionals. It programs the instructional design competency and standard in teaching support and academic experiences [3].

Indeed, designing effective instructional strategies require interaction. It is an interaction designed skillfully in the learning environment to provide rich experiences in learning simple knowledge and acquisition. Moreover, It involves the benefits of instructional design to translate activities and interaction learning process and must be based on the competency skills of the lecturers, faculties, or teachers [4]. Instructional strategies need to align with the course objectives to ensure consistency of the learning process. Effective instructional design aligns with objectives to articulate skills and knowledge for learners to be achieved in the subject. It also allows assessment of instruction to check the learners' objectives, and instructional strategy to foster learning toward students. It determines the success of teachers and instruction design for inclusive teaching pedagogy inside the classroom. It specializes on instructional design and collaboration of student needs according to strengths, abilities, weaknesses of the learners. Teachers need to understand the unique and diverse characteristics of effective classroom teaching and pedagogy that can provide privilege for student learning. The teacher needs to understand the learning style of students and personal characteristics to design a classroom lesson. The options must be implemented to back-up teaching strategies inside the classroom for instructional approaches and effective design for students. The instructional designs must be adjusted based on the characteristics and needs of students. It recognizes the needs and analysis learning process actively. Instructional approach and effectiveness assist teachers to achieve learning outcome and instructional goals in the process of teaching [5]. Hence, designing effective instructional strategies are based on educational structure of learning to focus on students centered process for effective teaching and curriculum. It provides understanding of the concept of effective instructional design and structure learning process and intervention. Further, It is the process of learning and teaching that innovates teaching technology to support and analyze the characteristics of the learning process [6].

Notably, the focus on instructional design for effective instructional strategy is developed through the trends of technology to equip students in the learning process. Instructional strategy and activity of learning must go hand in hand since it covers a set of objectives and often requires instructional strategy and accomplishment of learning. It is a clear measure on constructing instructional design for effective classroom pedagogy of teaching to identify effective learning. issues and gaps in the attitude of students' learning process, skills, and knowledge. It analyzes the needs and develops learning materials. Instructional design provides meaningful effective instructions that makes learning and teaching easy. It analyzes the positive and improvement of learning styles and advantages of instructional design and focus. It adopts learning activities to explore instructional design and perception in the educational system in actual practice learning analysis strategies in teaching. The instructional design adopted a potential limit on intention affected by the system and condition process [7]. Hence, it also focuses on student learning procedures and knowledge in effective teaching. It helps students to be flexible in the learning process for mastery information domain and understanding of the lesson. The objective is the present framework instructional guide and understanding the complex domain. Instructional design pathway and idea provide expert authentic practices of learning in a novice process for effective teaching. It guides a series of instructional design decision practice performance, information, support, and learning tasks for students to have master skills, and ideas of learning [8].

Nonetheless, effective teaching pedagogy is based on instructional design being implemented to motivate students to excel in academic

performance. It is a student-centered learning and teaching approach and reflection. It implements practice, theory, and policy learning and teaching for positive outcomes. It is a creation of instructional design and materials to consider in effective academic goals as to various domains of teaching pedagogy for effective teaching and learning based on adopted skills and instructional design to provide an effective lecture classroom teaching. Effective pedagogy of teaching techniques must be complex to exploit the transition of the learning process. It empowers effective ability connection on the performance and task to motivate better learning [1]. Nevertheless, the teaching profession inspires and motivates students to discover student potentials. It devotes time to inspire and empower students in the learning process through effective learning pedagogy. Teacher explains the lesson to simplify complex learning to properly understand the lesson and activities on design instruction and experiences in effective pedagogy of teaching. It provides exchange of thoughts, inspires students, shares and bonds, and builds students to the best learning outcome. Teaching is a reflection of a perfect profession in molding and shaping students through effective pedagogy of teaching [9].

Lastly, understanding the challenges of teaching issues and problems in effective classroom pedagogy for instructional design carries the misconception of teachers and knowledge. There is a need to understand the challenges, issues, and problems of the teacher's role in the process of teaching. Understanding the challenges among teachers and students are diverse learning and set ability, demand, and attention. It provides a learning style in meeting the learners needs. Different strategies in teaching stimulates and satisfies various manners of teachers in empowering strategies and development with thriving learners. The key issue also deals with student bullying and family problems where teachers need to safeguard emotional support from bullying and family issues. Another challenge is lack of funding especially on the part of teachers where they can only utilize the resources available in the environment which cannot suffice the learning process due to the advanced technology in teaching. This includes lack of effective communication, lack of motivation and encouragement of learning exciting activities under challenging times, discipline among students, endless paperwork and extended working hours due to deadlines in addition to the teaching job, time management, time pressure from the management, and burnout. It aims to examine the challenges and issues in classroom setting, instructional design, and instructional teaching effectiveness [10]. Hence, it is a rule of game to address various challenges and issues in instructional design for effective classroom pedagogy in teaching. Students need to be motivated so that conflict and discourses must be given emphasis. Issues and challenges must be solved step by step in the educational setting. This can enhance better learning outcome. There is a better craft to address the issues and challenges as gaps in learning and teaching [11].

Research questions

The following objectives guided the study: (1) what is the contribution of instructional design for effective classroom pedagogy of teaching among the respondents?; (2) what makes instructional design that leads to effective classroom pedagogy of teaching among the respondents?; (3) is there a significant correlation on the contribution of instructional design for effective classroom pedagogy of teaching as observed among the respondents?

Hypothesis

There is a significant correlation on the contribution of instructional design for effective classroom pedagogy of teaching as observed among the respondents.

Theoretical framework

The study is anchored on the “Originary Theory in Instructional Design” as cited by McDonald, and Yanchar [12] as this theory is focused on utilization and development of instructional design theory generated for intended application formulated for the purpose of teaching effective classroom setting and pedagogy. It addresses the theory on instructional design that is reliable and limited on the support and insight in learning and teaching process. Originary theory in instructional design emphasizes the central role in facilitating teachers work design process, and developing better teaching and learning experiences. It supports and explores the practice of instructional design to address the challenges of values and assumptions in disclosing the teaching process to accomplish the learning process according to the demands and needs of

students. The theory conceptualizes the design and discipline in instructional design to provide alternative theory for the common teaching and learning. It develops instructional design to guide learners in different conditions and situations. It also provides guidance to help students attain academic performance to the fullest. This includes what to teach, what to motivate, and how to teach, considering the instructional design theory in situations and methods. Instructional design theories offer design in teaching with various tools and learning facilities in various situations. This includes instructional design, values, methods, conditions, and outcomes. Instructional design and values are beliefs on individual instruction for effective teaching. It ought to inform instructional design for possible users as to process in teaching. Instructional outcome includes appeal, efficiency, and effectiveness. It governs the instructional design and principles of human and knowledge cognition [13].

RESEARCH METHOD

The research employs the descriptive quantitative design because the method describes the variables and characteristics of the study. The method deals in answering the questions on the contribution of instructional design for effective classroom pedagogy of teaching among the respondents in the area of direct instruction, indirect instruction, experiential learning, independent study, and interactive instruction. This is to include the measure on what makes instructional design that leads to effective classroom pedagogy of teaching among the respondents. It is an observational method that influences the research process. Descriptive research involves a research survey using quantitative variables in the study. It builds and defines the quality of study, delivery and responsibility to ensure better measure in quantifying the results of the data. It examines the contribution of instructional design for effective classroom pedagogy of teaching [14].

Sampling techniques

Purposive sampling is highlighted in the study. It is an essential element in research implementation in gathering the sample size and population. It defines the criteria based on the objectives of the study. It ensures the reliability and credibility of the study among the selected curriculum designers, and instructional designers in pedagogy of teaching as factors in the reflection of the data and sample size. This has ensured that the questionnaire is being analyzed by the participants. It explains the contribution of instructional design for effective classroom pedagogy of teaching to justify the imperative criteria of sampling techniques. [15].

Participant of the study

The participants of the study are the curriculum designers, and instructional designers of various educational institutions for both public and private entities such as the Department of Education, (DepEd), Commission of Higher Education, (CHED), and Technical Education and Skills Development Authority, (TESDA). They are experts in analyzing the study under investigation. The questionnaire is sent via Google Form with the consent and purpose of the study. Those who answered the questionnaires are part of the respondents. The study comprised Seventy (70) respondents only.

RESEARCH RESULT

This study answered three research questions, and the results are as follows.

The contribution of instructional design for effective classroom pedagogy of teaching

Table 1 presents the weighted mean and the corresponding interpretation on the contribution of instructional design for effective classroom pedagogy of teaching among the respondents.

As gleaned in Table 1, rank 1 is shared by the two indicators which are “It emphasizes learning process and strategy for effective pedagogy of teaching”, and “It recognizes methods and benefits teaching effort in various tools instructional design for students”, with a weighted mean of 4.27 or Highly Observed. Rank 2 is also shared by the two indicators which are “It requires students to reflect about the application of the lesson and experiences to other context learning”, and “It provides useful information and step by step development skills in teaching”, with a weighted mean of 4.21 or Highly Observed.

Table 1. Contribution of Instructional Design for Effective Classroom Pedagogy of Teaching Among the Respondents

Indicators	Weighted Mean	Interpretation	Ranking
1. It develops the ability to organize the skills of rational argument and thoughts	4.08	Observed	7
2. Independent study involves small group and peer partnership in learning.	3.96	Observed	9.5
3. It emphasizes learning process and strategy for effective pedagogy of teaching.	4.27	Highly Observed	1.5
4. It provides an advantage and strategy for the interest of the learners in the subject.	3.79	Observed	12.5
5. It directs instruction to explicit questioning, lecturing, teaching, and demonstrating.	3.51	Observed	15
6. It recognizes the methods, benefits and teaching effort in various tools instructional design for students.	4.27	Highly Observed	1.5
7. Focuses on learner-driven indirect instruction as a teacher to be a resource person, supporter, and facilitator.	3.35	Limited	19.5
8. It requires students to reflect about the application of the lesson and experiences to other context learning.	4.21	Highly Observed	3.5
9. It fosters strategy on individual student development and initiative for self-improvement and self-reliance.	3.36	Limited	18
10. Relies on interactive instruction sharing and heavy discussion, role playing, peer learning, cooperative learning, simulation, and discussion.	3.87	Observed	11
11. It provides useful information and step by step development skills in teaching.	4.21	Highly Observed	3.5
12. It encourages indirect instruction to solve issues and problems as a general alternative for learners.	3.96	Observed	9.5
13. It focuses on learners' experiential learning and activity oriented based on the needs of students.	3.35	Limited	19.5
14. It involves instructional design to advance technology of teaching to equip students with better learning.	3.38	Limited	17
15. It outlines the topic and requires instructional strategy in teaching, sharing techniques and reporting.	4.16	Observed	5.5
16. It actively involves instruction that will lead students for better learning outcome.	3.63	Observed	14
17. Indirect instruction involves critical thinking, formation, analyzing inferences, and knowledge of the lesson.	3.47	Observed	16
18. It provides a phase of instructional design to effective teaching in applying, inferring, analyzing pedagogy and various learning experiences.	4.16	Observed	5.5
19. It requires interventional skills, listening, interpersonal, and observation from the learners.	3.79	Observed	12.5
20. It requires students to study independently for their own capacity where proper instruction, guidance, and supervision is needed.	4.00	Observed	8
Average Weighted Mean	3.84	Observed	
Standard Deviation	0.330		

Rank 3 is also shared by the two indicators which are “It outlines topics and requires instructional strategy in teaching, sharing techniques, and reporting”, and “It provides a

phase of instructional design to effective teaching in applying, inferring, analyzing pedagogy and various learning experiences", with a weighted mean of 4.16 or Observed. The least in rank is also shared by the two indicators which are "Focuses on learner-driven indirect instruction as a teacher to be a resource person, supporter, and facilitator", and "It focuses on the learners experiential learning and activity oriented based on the needs of students", with a weighted mean of 3.35 or Limited. The overall average weighted mean is 3.84 (SD=0.330) or Observed on the contribution of instructional design for effective classroom pedagogy of teaching among the respondents.

Significance of correlation on the contribution of instructional design

Table 2 presents the test of significant correlation on the contribution of instructional design for effective classroom pedagogy of teaching as observed among the respondents.

Table 2. Test of Significant Correlation on Contribution of Instructional Design for Effective Classroom Pedagogy of Teaching as observed among the respondents

Test of variables	Computed Z value	Comparison	Z critical value	Decision
Instructional design for effective classroom pedagogy of teaching as observed among the respondents	55.92	>	±1.96	Rejected
Two-tailed test at 0.05 level of significance				

As revealed in Table 2 when the variables are tested, it shows that z computed value is 55.92 which is greater than the z critical value of ±1.96 which is significant and resulted in the decision of rejection, two tailed test, at 0.05 level of significance. Therefore, it is safe to say that there is a significant correlation on the contribution of instructional design for effective classroom pedagogy of teaching as observed among the respondents.

The instructional design leads to effective classroom pedagogy of teaching

Presented in Table 3, this section is the thematic analysis and core ideas on instructional design for effective classroom setting pedagogy of teaching among the respondents. The theme is categorically analyzed based on the response of the respondents on the following scale. 5=highly observed, 4=observed, 3=limited, 2=not observed, and 1 is not observed at all. Text verbatim is included in the analysis of the study.

Direct Instruction

Direct instruction is one of the most exciting and effective strategies in teaching. This is often misunderstood because it is direct and simple. It is a directed teacher teaching method which means instruction presents and stands in the classroom and information. It guides explicitly and provides students proper instructions. It emphasizes that the model of teaching in direct instruction is carefully well-developed, designed lesson plan from small increments of learning clearly prescribes, and defines the teaching task. It provides foundation on content analysis in direct instructional design to produce effective teaching [16]. The participants say that:

"*It provides useful information and step by step development skills in teaching*". T1, P37 & P3
"*It directs instruction to explicit questioning, lecturing, teaching, and demonstrating*". T1, P 36 & P 10
"*It actively involves instruction that will lead students to a better learning outcome*". T1, P45 & P4
"*It recognizes the methods and benefits in teaching effort in various tools instructional design for students*". T1, P47 & P5

Indirect instruction

Indirect instruction refers to the approach of learning and teaching which has pattern, concept, and abstract being taught for strategies and contexts emphasizing the problem and inquiry centered learning. It is an approach to student centered learning. It offers direct instructional flexibility and a variety of strategy lessons. Indirect instruction and strategy learning styles and needs provides prerequisite concern knowledge of students, student assessment learning, classroom management, discipline, teaching techniques, use of instructional technology materials, instructional strategies, and teaching content. It provides self-regulated

learning and framework through indirect instruction strategy learning environment [17]. The participants stress that:

"*Focuses on learner-driven indirect instruction as a teacher to be a resource person, supporter, and facilitator*". T2, P37 & P2

"*Indirect instruction involves critical thinking, formation, analyzing inferences, and knowledge of the lesson*". T2, P 43 & P9

"*It provides an advantage and strategy for the interest of the learners*". T2, P33 & P10

"*It encourages indirect instruction to solve issues and problems as a general alternative for learners*". T2, P41 & P7.

Table 3. Thematic Analysis and Core Ideas on Instructional Design for Effective Classroom Pedagogy of Teaching Among the Respondents

Themes	Frequency of responses	Core ideas
Direct instruction	Observed	(1) development skills in teaching (2) questioning, lecturing, teaching, and demonstrating (3) students learning outcome (4) teaching effort in various tools
Indirect instruction	Observed	(1) learner-driven instruction (2) knowledge of the lesson (3) advantage and strategy (4) alternative for learners
Experiential learning	Observed	(1) oriented based activity (2) lesson and experiences (3) learning process (4) phase of instructional design
Independent study	Observed	(1) supervision requirement (2) initiative and self-reliance (3) partnership in learning (4) equip better learning
Interactive instruction	Observed	(1) discussion sharing (2) organize skills (3) interventional skills (4) sharing techniques

Experiential learning

Experiential learning is a method or philosophy which is engaged by educators for students to reflect and focus on the increase and order of knowledge, clarify values, and development skills. It equips learning services to prepare students for the success of learning even outside the classroom. It connects the concept in a meaningful learning collaboration, disposition, knowledge, skills, and passion. It develops capacity for deeper understanding, advancement and support, unclear situation, complex knowledge, application, reflective judgment, and critical capacity thinking. It allows and engages effective ability for lifelong learning, critical thinking and problem solving. It enables interactive features on experiential learning on active experiment, concept, reflective observation, and concrete experiences [18]. The participants observe that:

"*It focuses on learners' experiential learning and activity oriented based on the needs of students*". T3, P41 & P5

"*It requires students to reflect about the application of the lesson and experiences to other context learning*". T3, P36 & P9

"*It emphasizes the learning process and strategy for effective pedagogy of teaching*". T3, P33 & P6

"*It provides a phase of instructional design to effective teaching in applying, inferring, analyzing experiences of pedagogy and various learning experiences*". T3, P49 & P1

Independent study

The concept of independent study increases spectacularly in the subject and interest occurred in the delivery of lessons to build skills in independent learning. It provides learning and individualized teaching through activity tasks of students, tutorial process and existence. It is

convenient for the learning process of students. It provides responsibility and progress for the learners. Independent learning organizes effective and positive instruction for the learners. Instructions are provided for students to learn independently. It outlines content of independent learning of students. It reveals the criteria and level of independent learning activities and implementation process. It develops competency skills of students to study independently for the degree of learning [19]. The participants evaluate that:

"*It requires students to study independently for their own capacity where proper instruction, guidance, and supervision is needed*". T4, P46 & P10
"*It fosters strategy on individual student development and initiative for self-improvement and self-reliance*". T4, P34 & P7
"*Independent study involves small group and peer partnership in learning*". T4, P36 & P3
"*It involves instructional design to advance technology of teaching to equip students with better learning*". T4, P 48 & P12.

Interactive instruction

Interactive instruction designs for teaching and resources in specific learning outcome for students. It contains various combinations of text and interactive activities. It aims to deliver self-study in various platforms for teaching and learning. Interactive instruction learning materials supplements and provides resources in the core and integral activity in teaching and learning process. It provides students with the necessary skills and knowledge for learning. It challenges educational technology gradually to facilitate learning outcome and improvement. Interactive instruction is necessary part of sharing knowledge, transferring and storing information and communication processes in teaching and learning [20]. The participants indicate that:

"*Relies on interactive instruction sharing and heavy discussion, role playing, peer learning, cooperative learning, simulation, and discussion*". T5, P 44 & P8
"*It develops the ability to organize the skills of rational argument and thoughts*". T5, P40 & P3
"*It requires interventional skills, listening, interpersonal and observation from the learners*". T5, P 36 & P1
"*It outlines the topic and requires instructional strategy in teaching, sharing techniques and reporting*". T5, P42 & P6

DISCUSSION

The contribution of instructional design for effective classroom pedagogy of teaching among the respondents shows to emphasize learning process and strategy for effective pedagogy of teaching to recognize the method and benefit of teaching effort in various tools instructional design which means it requires students to reflect about the application of the lesson and experiences to other context learning, and it provides useful information and step by step development skills in teaching. This is also based on teaching and intervention of instructional design in the educational setting where it adopts the model theory of teaching [21].

Moreover, it determines the pedagogical knowledge of teachers in determining and benchmarking the teacher's quality of teaching. Pedagogical knowledge is essential in the quality of teaching determinant in the classroom setting. It is sufficient to improve facilities of learning and quality of teaching for student efforts and attention in a diverse range of classroom activities to utilize various enhanced effective teaching and learning for students' self-regulation. It facilitates interactive learning and improves the quality of teaching [22]. On the other hand, the contribution of instructional design for effective classroom pedagogy of teaching shows to outline topic and requires instructional strategy in teaching, sharing techniques and reporting. It also provides a phase of instructional design to effective teaching in applying, inferring, analyzing pedagogy and various learning experiences to focus on learner-driven indirect instruction as a teacher to be a resource person, supporter, and facilitator, and focuses on the learners experiential learning and activity oriented based on the needs of students. This involves framework and domain of learning. It is a management system of instructional design for students to be accomplished in the learning tasks and activities. It is a flexible instructional design that outlines the process of effective teaching and learning success. It provides knowledge of learning introduction of instructional design in the classroom setting of teaching. It is effective in providing the

coursework and instructional design learning infusion of teaching [23], [24].

On the other hand, direct instruction shows to actively involve instruction that will lead students for better learning outcome and recognizes the method and benefit in teaching effort of various tools instructional design for students. It demonstrates the behavioral skills of effective methods in teaching through direct instruction and instructional design for teachers. It also provides methods and high-fidelity performance skills in direct instruction. Direct instruction implements simple methods in instructional design. It targets the accuracy of instructional design and direct teaching method for delivery knowledge. It designs to evaluate the effect of direct instruction and instructional design for effective teaching. It demonstrates skills in direct instruction and implementation for improved performance of teaching and learning [25].

Nonetheless, it also provides useful information and step by step development skills in teaching and it directs instruction to explicit questioning, lecturing, teaching, and demonstrating. This means that direct instruction challenges the content of the lesson in teaching through instructional design in academic diverse learners. It includes complex teaching experiences in directing teaching organizations for maximizing learning and student interaction. Instructional design and direct teaching specify teaching pedagogy of interaction between learners and teachers as the center of the learning process. This includes mastery of teaching, decision making in teaching, interaction, and responsive learners and teachers, active student participation, and flexible skills in direct instruction for materials and design in learning. It describes features of function and system of direct instruction and instructional design for teaching. It provides direct instruction and application. It describes the goals and critical features of direct instruction clarity in the presentation of lesson for student and teachers interaction of instructional designs and practice, Direct instruction provides features for effective program and development in instructional design for effective classroom teaching [26].

In addition, indirect instruction is shown to involve critical thinking, formation, analyzing inferences, and knowledge of the lesson to solve issues and problems as a general alternative for learners. It provides self-regulated learning to discover the process of teaching. It helps to stimulate student ability to think in the lesson presented. It is an instrumental effect and predictable complicated knowledge of learning. It acquires pedagogical content through indirect instruction knowledge for effective teaching strategy, procedure and pattern on teachers' regulation. It facilitates indirect instruction planning lesson through instructional design. It accesses the process and approaches of indirect instruction in developing, monitoring and self-regulative activities in teaching instructional design. It demonstrates goal oriented in monitoring indirect instruction and interactive process of teaching effectively in classroom settings. It adopts the process and understanding approach to examine the opportunity offered in instructional design and indirect instruction domain. It develops intervention and instructional design in promoting indirect instruction [27]. Nevertheless, it shows that there is focus on learner-driven indirect instruction as a teacher to be a resource person, supporter, and facilitator to provide an advantage and strategy for the interest of the learners in the subject. It influences transformation of teachers in indirect instruction. to integrate teacher centered in instructional design and behavior toward student centered learning. It confirms integrated teaching instructional design support for students suitable learning development and sustainable process. It focuses on teachers' application and behavior to instructional design to reform teaching and development direction. It is conducive for learning method in nurturing the learners' ability and deep learning development. It harnesses the indirect learning ability and sustainability development in student learning instructional design [28].

Nevertheless, it shows that experiential learning provides a phase of instructional design to effective teaching in applying, inferring, analyzing pedagogy and various learning experiences to focus on the learners experiential learning and activity oriented based on the needs of students. It involves activities in various instructional design in learning theory of instruction. Learning theory provides selection and foundation of instructional design and strategies to allow prediction and reliable effectiveness in experiential learning. It achieves learning outcome and effectiveness in instructional design development model of experiential learning appropriate strategy process. It explains the model of instructional

design in teaching process. The experiential learning and instructional design involve activities in underpinning the strategy of teaching. Instructional design in experiential learning develops the planning and systematic instruction. It designs the systematic process of experiential learning and instructional design of teaching. The instructional design translates the model into learning principles and development materials for learning outcome success [29]. Indeed, it shows that experiential learning requires students to reflect about the application of the lesson and experiences to other context learning where it emphasizes the learning process and strategy for effective pedagogy of teaching. It enhances experiential learning for student engagement. The form of experiential learning is hard to implement when there is no instructional design to be presented. It describes the performance of experiential learning and initiative in teaching and learning of students. It also shows deep reflection and positive evidence or learning [30].

Subsequently, it shows that independent study involves instructional design to advance technology of teaching to equip students with better learning because it requires students to study independently for their own capacity where proper instruction, guidance, and supervision is needed. It provides learning outcomes through advanced technology to analyze and demonstrate independent study because they can rely on technology to tutor them regarding the lesson, especially on tasks that need no supervision. They can work on their computer and internet as the major information of the learning process. The advanced technology is designed for better learning since libraries are not available during the learning process for students. In advanced technology, you can click and provide everything in the learning process. It helps a lot especially on the part of the teachers in designing instructional materials for effective classroom teaching. It is the state of art in teaching and learning for independent study as an advantage for both teachers and students. The independent learning describes the scenario of students on the task and learning process with the assistance of technology in education. It supports the services of independent learning knowledge of students [31]. Consequently, independent learning fosters strategy on individual student development and initiative for self-improvement and self-reliance where independent study involves small group and peer partnership in learning. It provides retention and abundance development of learning experiences and challenges of students. It determines the method of teaching and retention practices and strategy in effective classroom teaching pedagogy [32].

Lastly, it shows interactive instruction sharing and heavy discussion, role playing, peer learning, cooperative learning, simulation, and discussion relying on the outline of the topic and requires instructional strategy in teaching, sharing techniques, and reporting. It provides an effective, appealing, and productive learning environment tool and advanced connection in technology of teaching through instructional design for the learning process. Teaching and learning is a two way process. It motivates students to explore the knowledge and interaction with the visuals observed in the learning process. It aids students in technology methods of different educational strategies and interactive instruction. The approach of interactive learning defines in adopting the role and perspective understanding of teaching and learning process. It demonstrates the improved practice and cognitive skills, interaction level, and collaboration for effective classroom teaching and expectation. It focuses on achievement and techniques of interaction and learning experiences of students to be employed in teaching pedagogy among students. It aims to implement instructional design and philosophy of teaching, learning process, and new interactive teaching. It seeks to analyze issues in interactive learning platforms [33]. Yet, it shows that interactive learning develops the ability to organize the skills of rational argument and thoughts where it requires interventional skills, listening, interpersonal and observation from the learners. It integrates technology of teaching to provide proper pedagogy of teaching evolution of classroom development instruction. It supports teaching interactive instruction practices. It analyzes and measures the classroom instruction improvement to equip better teaching and learning [34].

CONCLUSION

It shows that the contribution of instructional design for effective classroom pedagogy of teaching among the respondents emphasizes the learning process and strategy for effective pedagogy of teaching, recognizing the method

and benefit of teaching effort in various tools instructional design for students.

It shows that direct instruction actively involves instruction that will lead students for better learning outcome, to provide useful information, and step by step development skills in teaching that directs instruction to explicit questioning, lecturing, teaching, and demonstrating.

It shows that indirect instruction involves critical thinking, formation, analyzing inferences, and knowledge of the lesson where it encourages indirect instruction to solve issues and problems as general alternative for learners, focuses on learner-driven indirect instruction as teacher to be resource person, supporter, and facilitator and provides an advantage and strategy for the interest of the learners in the subject.

It shows that experiential learning provides a phase of instructional design to effective teaching in applying, inferring, analyzing pedagogy and various learning experiences where it focuses on the learners experiential learning and activity oriented based on the needs of students. It also reflects the application of the lesson and experiences to other context learning and emphasizes the learning process and strategy for effective pedagogy of teaching.

It shows that independent study involves instructional design to advance technology of teaching to equip students with better learning where it requires students to study independently for their own capacity where proper instruction, guidance, and supervision is needed.

It shows that interactive instruction relies on interactive instruction sharing and heavy discussion, role playing, peer learning, cooperative learning, simulation, and discussion where it outlines the topic and requires instructional strategy in teaching, sharing techniques and reporting.

REFERENCES

[1] L. L. D. Mallillin, "Different Domains in Learning and the Academic Performance of the Students," *J. Educ. Syst.*, vol. 4, no. 1, pp. 1–11, 2020.

[2] W. Srikongchan, S. Kaewkuekool, and S. Mejaleurn, "Backward Instructional Design based Learning Activities to Developing Students' Creative Thinking with Lateral Thinking Technique," *Int. J. Instr.*, vol. 14, no. 2, pp. 233–252, Apr. 2021.

[3] F. Martin and A. D. Ritzhaupt, "Standards and competencies for instructional design and technology professionals," in *Design for Learning: Principles, Processes, and Praxis*, J. K. McDonald and R. E. West, Eds. EdTech Books, 2021.

[4] L. L. D. Mallillin and J. B. Mallillin, "Competency skills and performance level of faculties in the higher education institution (HEI)," *Eur. J. Educ. Stud.*, 2019.

[5] R. Rasmitadila, W. Widyasari, T. Prasetyo, R. Rachmadtullah, A. Samsudin, and R. R. Aliyyah, "General Teachers' Experience of The Brain's Natural Learning Systems-Based Instructional Approach in Inclusive Classroom," *Int. J. Instr.*, vol. 14, no. 3, pp. 95–116, Jul. 2021.

[6] L. L. D. Mallillin, J. C. Cabaluna, R. D. Laurel, P. A. C. Arroyo, T. M. Señoron Jr, and J. B. Mallillin, "structural domain of learning and teaching strategies in the academic performance of students," *Eur. J. Educ. Stud.*, vol. 8, no. 9, pp. 187–209, Aug. 2021.

[7] P. S. Muljana and T. Luo, "Utilizing learning analytics in course design: voices from instructional designers in higher education," *J. Comput. High. Educ.*, vol. 33, no. 1, pp. 206–234, Apr. 2021.

[8] L. Fries, J. Y. Son, K. B. Givvin, and J. W. Stigler, "Practicing Connections: A Framework to Guide Instructional Design for Developing Understanding in Complex Domains," *Educ. Psychol. Rev.*, vol. 33, no. 2, pp. 739–762, Jun. 2021.

[9] L. L. D. Mallillin, "Teacher theory and adaptable model: an application to teaching profession," *Eur. J. Educ. Stud.*, vol. 8, no. 12, pp. 299–311, Nov. 2021.

[10] B. Cukurbasi and M. Kiyici, "Instructional design and instructional effectiveness in virtual classrooms: Research trends and challenges," *Australas. J. Educ. Technol.*, pp. 156–174, Jul. 2021.

[11] J. Cooper and I. Lavie, "Bridging incommensurable discourses – A commognitive look at instructional design in the zone of proximal development," *J. Math. Behav.*, vol. 61, p. 100822, Mar. 2021.

[12] J. K. McDonald and S. C. Yanchar, "Towards a view of originary theory in instructional design," *Educ. Technol. Res. Dev.*, vol. 68, no. 2, pp. 633–651, Apr. 2020.

[13] J. Sweller, "The Role of Evolutionary Psychology in Our Understanding of Human Cognition: Consequences for Cognitive Load Theory and Instructional Procedures," *Educ. Psychol. Rev.*, pp. 1–13, Nov. 2021.

[14] L. J. Duckett, "Quantitative Research Excellence: Study Design and Reliable and Valid Measurement of

Variables," *J. Hum. Lact.*, vol. 37, no. 3, pp. 456–463, Aug. 2021.
[15] S. Denieffe, "Commentary: Purposive sampling: complex or simple? Research case examples," *J. Res. Nurs.*, vol. 25, no. 8, pp. 662–663, Dec. 2020.
[16] K. R. Rolf and T. A. Slocum, "Features of Direct Instruction: Interactive Lessons," *Behav. Anal. Pract.*, vol. 14, no. 3, pp. 793–801, Sep. 2021.
[17] C. Dignath and M. V. J. Veenman, "The Role of Direct Strategy Instruction and Indirect Activation of Self-Regulated Learning—Evidence from Classroom Observation Studies," *Educ. Psychol. Rev.*, vol. 33, no. 2, pp. 489–533, Jun. 2021.
[18] J. Fromm, J. Radianti, C. Wehking, S. Stieglitz, T. A. Majchrzak, and J. vom Brocke, "More than experience? - On the unique opportunities of virtual reality to afford a holistic experiential learning cycle," *Internet High. Educ.*, vol. 50, p. 100804, Jun. 2021.
[19] H. S. Daniyarovna, K. D. Istamovich, and U. Ilhom, "The Contents of Students' Independent Education and Methods of Implementation," *Psychol. Educ. J.*, vol. 58, no. 2, pp. 1445–1456, 2021.
[20] F. Tuma, "The use of educational technology for interactive teaching in lectures," *Ann. Med. Surg.*, vol. 62, pp. 231–235, Feb. 2021.
[21] L. L. D. Mallillin, "Teaching and learning intervention in the educational setting: adapting the teacher theory model," *Int. J. Educ. Innov. Res.*, vol. 1, no. 2, pp. 99–121, Jul. 2022.
[22] M. Z. Haron, M. M. M. Zalli, M. K. Othman, and M. I. Awang, "Examining the teachers' pedagogical knowledge and learning facilities towards teaching quality," *Int. J. Eval. Res. Educ.*, vol. 10, no. 1, p. 1, Mar. 2021.
[23] L. L. D. Mallillin, L. C. Mendoza, J. B. Mallillin, R. C. Felix, and I. C. Lipayon, "Implementation and readiness of online learning pedagogy: A transition to COVID 19 pandemic," *Eur. J. Open Educ. E-learning Stud.*, vol. 5, no. 2, pp. 71–90, Sep. 2020.
[24] L. L. D. Mallillin, E. A. Carag, J. B. Mallillin, and R. D. Laurel, "Integration of knowledge through online classes in the learning enhancement of students," *Eur. J. Open Educ. E-learning Stud.*, vol. 5, no. 1, Jun. 2020.
[25] J. Sherman, J. Richardson, and J. Vedora, "The Use of Behavioral Skills Training to Teach Components of Direct Instruction," *Behav. Anal. Pract.*, vol. 14, no. 4, pp. 1085–1091, Dec. 2021.
[26] T. A. Slocum and K. R. Rolf, "Features of Direct Instruction: Content Analysis," *Behav. Anal. Pract.*, vol. 14, no. 3, pp. 775–784, Sep. 2021.
[27] L. Huang and S. P. Lajoie, "Process analysis of teachers' self-regulated learning patterns in technological pedagogical content knowledge development," *Comput. Educ.*, vol. 166, p. 104169, Jun. 2021.
[28] J. Zhang, Z. Chen, J. Ma, and Z. Liu, "Investigating the Influencing Factors of Teachers' Information and Communications Technology-Integrated Teaching Behaviors toward 'Learner-Centered' Reform Using Structural Equation Modeling," *Sustainability*, vol. 13, no. 22, p. 12614, Nov. 2021.
[29] M. K. Khalil and I. A. Elkhider, "Applying learning theories and instructional design models for effective instruction," *Adv. Physiol. Educ.*, vol. 40, no. 2, pp. 147–156, Jun. 2016.
[30] P. Donovan and A. Hood, "Experiential Learning in the Large Classroom Using Performative Pedagogy," *J. Manag. Educ.*, vol. 45, no. 3, pp. 344–359, Jun. 2021.
[31] L. L. D. Mallillin, "Feedback on the Performance of Students in their Information Technology Module," *London J. Res. Comput. Sci. Technol.*, vol. 19, no. 2, pp. 13–20, 2019.
[32] T. J. Phillips and L. L. Snodgrass, "Examining Individualism in College Student Retention Theory and Practice," *J. Coll. Orientation, Transition, Retent.*, vol. 28, no. 1, pp. 1–15, Apr. 2021.
[33] E. Doğantan, "An interactive instruction model design with role play technique in distance education: A case study in open education system," *J. Hosp. Leis. Sport Tour. Educ.*, vol. 27, p. 100268, Nov. 2020.
[34] Y. Li, V. Garza, A. Keicher, and V. Popov, "Predicting High School Teacher Use of Technology: Pedagogical Beliefs, Technological Beliefs and Attitudes, and Teacher Training," *Technol. Knowl. Learn.*, vol. 24, no. 3, pp. 501–518, Sep. 2019.