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Effectiveness of Teaching-Learning Modalities

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ABSTRACT

The study, entitled 'Effectiveness of Teaching-Learning Modalities,' aimed to assess the effectiveness of face-to-face and blended learning modalities. Specifically, it sought to determine whether there was a significant difference in pupils' academic performance based on the teaching modality and to explore any correlation between teaching modalities and pupils' academic performance. The study utilized a descriptive-quantitative design. According to the findings, the instrument obtained a mean score of 4.86, indicating a very high level of effectiveness. Furthermore, the study revealed that, in the pretest, the subjects achieved an average mean score. After the treatment was administered, the post-test scores of the subjects significantly increased to a high level. Consequently, the hypothesis nullifying the significant difference between the pretest and post-test of the subjects was rejected. In light of these results, it is recommended that teachers develop instructional materials to enhance students' knowledge, abilities, and skills. Additionally, it is suggested that an assessment of students' least-learned skills be conducted to gather valuable information about their learning, allowing for effective interventions that positively contribute to the overall success of the learners.

KEYWORDS: *teaching-learning modalities, face-to-face modality, blended modality.*

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I. INTRODUCTION

Background of the study

Education plays an important role in shaping the lives of the students. In the process, teachers are one of the essential instruments in delivering quality learning. Due to the emergence of COVID-19 crisis in the Philippines, a lot of changes happened in the educational landscape. One of these is the mode of instruction that was implemented by the Department of Education. The current COVID-19 crisis has obliged most educational systems to adopt alternatives to face-to-face teaching and learning. Many education systems moved activities online, to allow instruction to continue despite school closures (OECD,2020). The shift of the teaching learning delivery in schools to modular distance learning made more challenging, on the part of the school personnel, the delivery of basic quality education. That is why DepEd leaders are always finding avenues to solve the problems and capacitating its teachers and school heads to become more effective in the field of modular distance learning (Bagood, 2020).

The Department of Education (DepEd) has adopted different methods of teaching students due to the Covid 19 pandemic. Some of these was blended learning modalities. Blended learning is a learning delivery modality that combines distance learning approaches such as online distance learning, modular distance learning, and TV/Radio-based instruction. Modular distance learning is a type of learning delivery modality that DepEd conceptualized and classified under the distance learning approach. As schools now allow face to face classes, DepEd has been using the modular distance learning method in the Philippines as part of a blended learning approach. These alternatives learning delivery methods demonstrate that the Department of Education (DepEd) was committed to providing quality education to students despite the difficulties posed by the pandemic (Yes, 2022)

Hence, the researcher aim to determine the effectiveness of the different teaching learning modalities through face-to-face learning and blended

learning of Grade VI teachers in the District of Calatrava I, Division of Negros Occidental, Philippines.

Statement of the problem

This study aimed to determine the level of effectiveness of teaching-learning modalities of Grade-VI teachers in the District of Calatrava I, Division of Negros Occidental, for the S.Y. 2022-2023.

Specifically, this study sought to answer the following questions;

1. What is the level of effectiveness of face to face teaching modality?
2. What is the level of effectiveness of blended teaching modality?
3. What is the level of pupils' academic performance in face-to-face and in blended teaching modality?
4. What is the level of pupils' academic performance in the blended teaching modality?
5. Is there a significant difference in pupils' academic performance in face-to-face and blended teaching modalities?
6. Is there a significant correlation between teaching modalities to the pupils' academic performance?

Null Hypothesis

Based on the questions raised the following hypothesis are drawn;

1. There is no significant difference on pupils' academic performance when based on teaching modality?
2. There is no significant correlation on teaching modalities to the pupils' academic performance?

Theoretical Framework

This study was anchored on the stimulus-response theory developed by B.F. Skinner. In his theory, it postulated that all living organisms are able to detect changes within themselves and in their environments. A change in the environment is the stimulus and the reaction of the organism to it is the response. In this study the change of the learning modalities introduced by the learners due to the pandemic is the stimulus and the reaction of the learners and how the learners react to these new modalities. The central principles of conditioning assume that human behavior is learned.

This study was also legally supported by DepEd Order No. 12,s 2020" or the "Basic Education Learning Continuity Plan (BE-LCP) for School Year 2020-2021 in light of the COVID-19 Public Health Emergency". It ensures to protect the health and safety of the children of the children, teachers, and other employees and to control the spread of COVID-19, to make sure to continue to render better education based on the K-12 Curriculum, congruency of learning materials, use different modalities of learning, give appropriate training to teachers and administrators, and to disseminate information to parents and guardian of the children. Furthermore, it aims to facilitate the orderly resume of classes and offices while taking into consideration the advice of the Department of Health (DOH) and Inter-Agency Task Force (IATF) in connection to what DepEd perceive of the situation. To give due consideration to activities that must be given importance, the BE-LCP of DepEd should be an anchor to give quality education based on "Sulong Edukalidad" and "Future Thinking in Education".

Conceptual Framework

This study investigate the effectiveness of the teaching learning modalities of the teachers in the District of Calatrava I, Division of Negros Occidental, for School Year 2022-2023.

As shown in the paradigm of the study, the researcher was only focused on the effectiveness of teaching learning modalities used by the respondents. Face to face learning is an instructional method where course content and learning material are taught in person to a group of students. Blended learning is an approach to education that combines face to face and the used of modules as learning outcomes. The main variable or the dependent variable to be investigated was the level of effectiveness of the teaching learning modalities. In this study the Independent Variables are profile of the respondents. It was hypothesized, Independent Variables significantly relate with the Dependent Variables as shown in the figure 1 below.

The following figure shows the interplay of the variables used in this study.

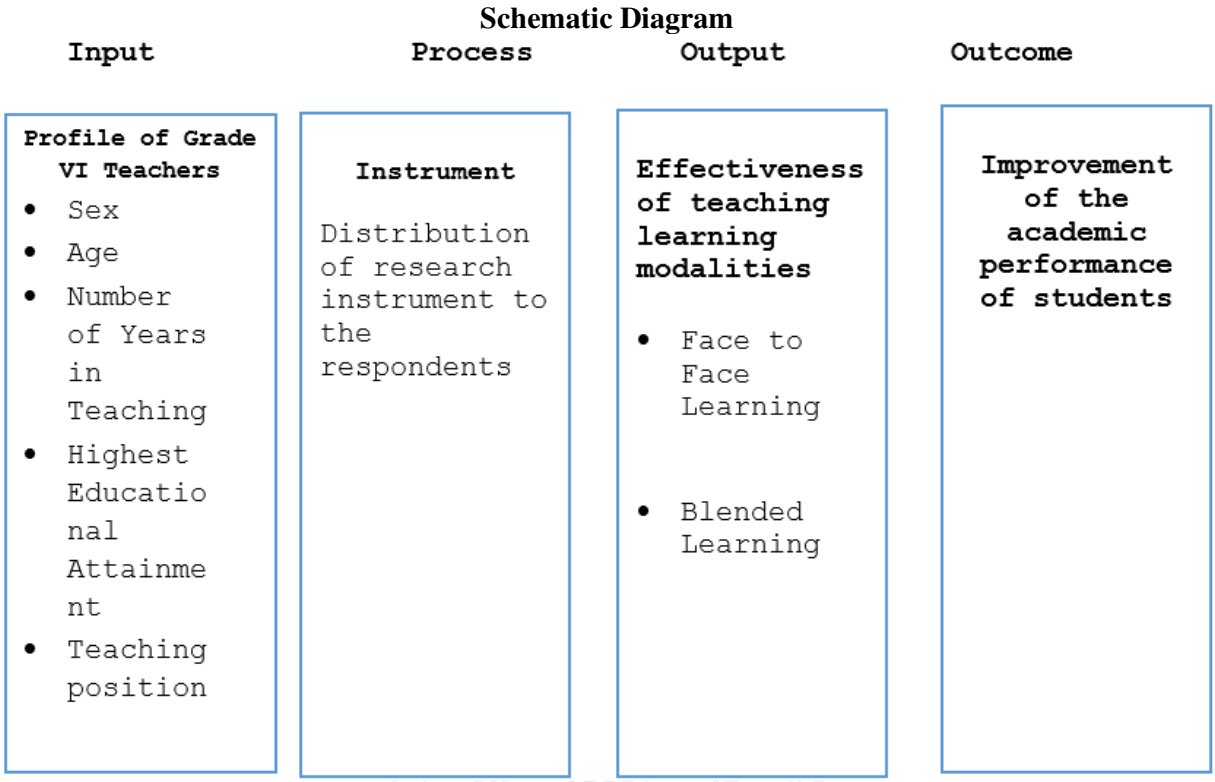

Figure 1. The Schematic Diagram of the Study

Significance of the Study

This study would be beneficial to the following:

DepEd Personnel. The DepEd would benefit from this study. It would serve as a review and basis for planning and designing plans relevant to the implementation of distance learning in schools and in providing intervention on areas needing it.

Curriculum Planners. The findings of this study would afford them biased data on the effectiveness of teaching learning modalities and as basis in designing and mapping a curriculum and specific competencies that needs to be focused as well as areas of learning that needs thorough plan designing.

School Heads. The findings of this study would provide astute data in sustaining or improving the effectiveness of online, modular and blended learning especially on determining problems solutions.

Community. This serve as one of the aspects which influence the learners. Helps pupils to recognize the dignity of the individual, develop skills for actively participating and community and political life.

Teachers. Result of this study would likewise give them a date of how they will address the identified problem and in findings problem and in finding ways to cope with the stressors especially in performing their tasks.

Pupils. The pupils who are the main beneficiaries of the study and the recipients of all the efforts both parents and teachers may hopefully be developed as they are appropriately assisted in their acquisition of knowledge and skills.

Researches. The result of this study would give them data-driven information about the subject being studied for basis of similar and related studies.

Future Researchers. The result of the study would give them basis to conduct the same study with different scope and/or respondents to validate or refute the results of this study.

Definition of Terms

For better understanding the following terms were defined conceptually and operationally;

Blended Learning Modality. It is also known as hybrid learning, is an approach to education that combines online educational materials and opportunities for interaction online with traditional place-based classroom methods (Quigley, 2019)

Operationally, the term refers to the learning delivery that combines face to face classes and modular distance learning.

Effectiveness. This was a measure of the match between stated goals and their achievement (Harvey, 2023).

In this study, the term operationally defined as to which learning modalities was more effective in teaching learning process.

Face to face Modality. Conceptually, it was where the teachers and the student meet in a set place for a

set time, for either one-on-one learning or, most commonly, in group class lessons similar to what happens in school (0ntario, 2022).

Operationally, the term refers to both the teacher and the students are physically present in the classroom, and there are opportunities for active engagement, immediate feedback, and the socio-emotional development of learners

Modular Learning Modality. It was a learning method where students can use printed self-learning modules (SLM)and modules that can be accessed digitally or through electronic device such as laptops, computers, tablets, and smartphones (DepEd, 2022).

In this study, it refers to the use of Modular learning Activities (MLAs) dividing the curriculum into small discrete modules or units that are independent, non-sequential, and typically short in duration.

Scope and Limitations of the Study

The main focused of the study was to determine the effectiveness of Teaching Learning Modalities among the Grade-VI Teachers in the District of Calatrava I, Division of Negros Occidental, for School Year 2022-2023. The respondents of the study were identified through a purposive sampling.

This study was limited to the Grade VI teachers only in the District of Calatrava I.

II. REVIEW OF RELATED LITERATURE AND STUDIES

This chapter presents the related literature and studies that are related to the present and both foreign and local studies. These are the concepts that provide the researcher with insights and direction in the conceptualization and conduct of the study as well as the analysis and interpretation of the data.

In the study conducted by Cheung and Chu (2021) findings revealed that students using DL method performed at a significantly lower level than students learning via the conventional Face to Face approach. One possible explanation was that students and tutors had to adapt a new way of conducting the PBL tutorial. Wilcha (2020) cited technical challenges like establishing a reliable internet connection, problems with hardware and software learning platforms, etc. as some of the weakness of online teaching in a systematic review. However, the software was relatively user-friendly, and the format of the tutorials remained the same. The time needed for students and tutors to become familiar with the new 'environment' should have been minimal. Technical issues such as Internet connectivity and lag time did not seem to be major problems in this locality. The fact that lower

performance was also observed at the third tutorial suggested there was more than a transitional issue.

Modern digital communication technology has allowed us to trump geographical barriers. Online platforms provide opportunities to meet and discuss without being physically close to each other. However, this type of technology may not reproduce the same interpersonal distance as physical presence. Students may feel distant and detached from the rest of the group despite being connected via the computer screen and audio. The perception of being an outsider may reduce one's eagerness to participate and contribute. In this study, students were required to keep the audio and video on throughout the tutorials, but there were occasions in which students only revealed or unmuted themselves when they were prompted to do so. Most students participated in the PBL tutorials from their residences via video conferencing. The casual ambiance might have appeared 'unreal' for learning, requiring psychological adaptation. Students were also more prone to distractions from surrounding persons or events. Prior studies have shown that DL using online platforms is associated with reduced student engagement, reduced communication and poor motivation.

Blended learning.

The increasing availability of distance education has provided educational opportunities to millions (Allen, 2016). Additionally, an emphasis on open educational resources (OER) in recent years has resulted in significant cost reductions without diminishing student performance outcomes (Hilton, 2016).

There are numerous definitions of blended learning, but they all refer to the blending of virtual and real contexts. Regardless of the numerous definitions of blended learning, all underline that it is a learning method that incorporates several models of traditional and remote learning and use multiple forms of technology (Akbarov, 2018).

According to Volchenkova (2016), blended learning is a type of learning that blends the finest of direct classroom learning and learning through the internet's applications. In addition, blended learning has been characterized as a program that employs more than one mode of communicating information in order to activate learning outcomes through the interaction of both student and teacher (Dziuban, 2018).

Blended learning, according to Kavitha and Jaisingh (2018) is one of the types of e-learning in which e-learning is integrated into traditional classroom learning through the use of a computer, intranet, or smart classroom, where the teacher meets the student face-to-face and interaction between students and teachers is built into the course design. It evolved

naturally as a result of programmed and electrical learning.

Ryan (2016) have compared F2F teaching to online learning and/or blended learning in order to try to define which of the formats provides, e.g., the highest learning outcome, creates the most satisfied students or has the highest rate of course completion. In the following, we make an introductory review of recent comparative studies of the three formats mentioned. The main focus will be on summing up the results developed by these studies and discussing some of the limitations said to accrue to comparative studies of teaching formats. Although there has not been complete agreement among researchers about the precise definition or meaning of the term 'blended learning' in particular (Bernard et al., 2014; Chigeza and Halbert, 2014), consensus has still built up around a sense of fairly clear distinctions between the three formats. Definitional questions do not, however, seem to haunt the terms 'face-to-face learning' and 'online learning' in the same way as they do 'blended learning' in the articles reviewed. Their meaning appears to be more or less agreed upon. For instance, the F2F learning format is characterized as "traditional" by many of the authors, referring to the fact that this is the format with the longest history of the three formats and in relation to which online and blended learning represent a modern or innovative intervention (Gómez, 2016). Generally, its meaning derives from an understanding of an instructional format that involves a physical classroom and the synchronous physical presence of all participants (i.e., teachers and students). One study emphasizes that even in-class use of computers and educational technology does not affect the definition of the F2F format so as to change it into blended learning (Bernard et al., 2014).

Education and the COVID-19 pandemic.

In December 2019, an outbreak of a novel coronavirus, known as COVID-19, occurred in China and has spread rapidly across the globe within a few months. COVID-19 is an infectious disease caused by a new strain of coronavirus that attacks the respiratory system (World Health Organization, 2020).

As of January 2021, COVID-19 has infected 94 million people and has caused 2 million deaths in 191 countries and territories (John Hopkins University, 2021). This pandemic has created a massive disruption of the educational systems, affecting over 1.5 billion students. It has forced the government to cancel national examinations and the schools to temporarily close, cease face-to-face instruction, and strictly observe physical distancing. These events have sparked the digital transformation of higher education and challenged its ability to respond promptly and effectively. Schools adopted relevant technologies, prepared learning and staff resources, set systems and infrastructure, established new teaching protocols, and adjusted their curricula.

However, the transition was smooth for some schools but rough for others, particularly those from developing countries with limited infrastructure (Pham & Nguyen, 2020; Simbulan, 2020). Inevitably, schools and other learning spaces were forced to migrate to full online learning as the world continues the battle to control the vicious spread of the virus. Online learning refers to a learning environment that uses the Internet and other technological devices and tools for synchronous and asynchronous instructional delivery and management of academic programs (Usher & Barak, 2020). Synchronous online learning involves real-time interactions between the teacher and the students, while asynchronous online learning occurs without a strict schedule for different students (Singh & Thurman, 2019).

With reference to policies, government education agencies and schools scrambled to create fool-proof policies on governance structure, teacher management, and student management. Teachers, who were used to conventional teaching delivery, were also obliged to embrace technology despite their lack of technological literacy. To address this problem, online learning webinars and peer support systems were launched. On the part of the students, dropout rates increased due to economic, psychological, and academic reasons. Academically, although it is virtually possible for students to learn anything online, learning may perhaps be less than optimal, especially in courses that require face-to-face contact and direct interactions (Franchi, 2020).

Kintu, (2017) in their study entitled "Blended learning effectiveness: the relationship between student characteristics, design features and outcomes" explained that this paper investigates the effectiveness of a blended learning environment through analyzing the relationship between student characteristics/background, design features and learning outcomes. It is aimed at determining the significant predictors of blended learning effectiveness taking student characteristics/background and design features as independent variables and learning outcomes as dependent variables.

This review presents research about blended learning effectiveness from the perspective of learner characteristics/background, design features and learning outcomes. It also gives the factors that are considered to be significant for blended learning

effectiveness. The selected elements are as a result of the researcher's experiences at a Ugandan university where student learning faces challenges with regard to learner characteristics and blended learning features in adopting the use of technology in teaching and learning. We have made use of Loukis, Georgiou, and Pazalo (2007) value flow model for evaluating an e-learning and blended learning service specifically considering the effectiveness evaluation layer. This evaluates the extent of an e-learning system usage and the educational effectiveness.

Recently, there has been an explosion of studies relating to the new normal in education. While many focused on national policies, professional development, and curriculum, others zeroed in on the specific learning experience of students during the pandemic. Among these are Copeland et al. (2021) and Fawaz (2021) who examined the impact of COVID-19 on college students' mental health and their coping mechanisms.

Copeland (2021) reported that the pandemic adversely affected students' behavioral and emotional functioning, particularly attention and externalizing problems (i.e., mood and wellness behavior), which were caused by isolation, economic/health effects, and uncertainties.

In Fawaz (2021) study, students raised their concerns on learning and evaluation methods, overwhelming task load, technical difficulties, and confinement. To cope with these problems, students actively dealt with the situation by seeking help from their teachers and relatives and engaging in recreational activities. These active-oriented coping mechanisms of students were aligned with Carter et al.'s (2020), who explored students' self-regulation strategies.

Unlike the two studies, Suryaman et al. (2020) looked into how learning occurred at home during the pandemic. Their findings showed that students faced many obstacles in a home learning environment, such as lack of mastery of technology, high Internet cost, and limited interaction/socialization between and among students.

In a related study, Kapasia (2020) investigated how lockdown impacts students' learning performance. Their findings revealed that the lockdown made significant disruptions in students' learning experience. The students also reported some challenges that they faced during their online classes. These include anxiety, depression, poor Internet service, and unfavorable home learning environment, which were aggravated when students are marginalized and from remote areas.

Contrary to Kapasia, (2020) findings, Gonzales et al. (2020) found that confinement of students during the pandemic had significant positive effects on their performance. They attributed these results to students' continuous use of learning strategies which, in turn, improved their learning efficiency.

However, half of them believed that the traditional classroom setting was more effective than the online learning platform. Methodologically, the researchers acknowledge that the quantitative nature of their study restricts a deeper interpretation of the findings.

More recently, Day (2021) examined the immediate impact of COVID-19 on students' learning experience. Evidence from six institutions across three countries revealed some positive experiences and pre-existing inequities. Among the reported challenges are lack of appropriate devices, poor learning space at home, stress among students, and lack of fieldwork and access to laboratories.

Presence of Learning

Presence learning consists of both the students and the teacher sharing the same physical classroom. Previous studies have emphasized the educational benefits of the use of this teaching practice (Anderton, 2021; García, 2021). This type of teaching methodology could not be applied from March to September 2020 due to the declaration of a State of Alarm by the government of the nation. However, as of September 2020, this teaching modality became eligible, and the educational centers were reopened.

The non-face-to-face teaching model is becoming increasingly popular in the field of higher education. Universities traditionally oriented to face-to-face teaching, regardless of whether they are public or private, are embracing this model. Although they maintain their main face-to-face structure, they offer students some distance-based degrees and master's studies (Hodges, 2020).

A face-to-face University that decides to include non-face-to-face teachings in its degrees and master's studies must combine its traditional procedures with the new requirements of non-face-to-face teaching (Chick , 2020). The universities that have already had this experience, have been able to adapt more quickly to the suspension of in-person activity.

Modular Learning

The spread of Covid-19 has brought a rapid change in the country not only in its economic stability but also in the education system. Schools have been promptly locked for personal engagement, transactions and students curricular activities following the order of President Rodrigo Roa Duterte, to suspend "face-to face" classes in adherence to the advisory of

Department of Health that Philippines be put under Enhanced Community Quarantine. With that, the Department of Education then had to shift and craft realistic learning platform without compromising its objective to deliver a continuous and quality learning among its students and yet promoting health awareness. Despite the pandemic, the Secretary of Education, Leonor Magtolis Briones, reiterated that the DepEd maintains its commitment to provide quality education to all Filipinos and makes education accessible to all Malipot (2020). Apparently, since Filipinos are tough and resilient to any mishaps, students were able to cope with whatever is conventional changes that may arise.

According to Llego (2020), Blended learning is a combined face-to face with any or a combination of online distance learning, modular distance learning (MDL), and TV/radio-based instruction. On the other hand, distance learning modality refers to a learning modality where learning takes place between the teacher and the students who are geographically distant from each other during the teaching-learning process. Modular Distance Learning (MDL),Online Distance Learning (ODL) and TV/Radio-Based Instruction were the types of distance learning modality. Lastly, homeschooling is an alternative delivery mode that seeks to provide students with basic education in their homes with the aid of parents, guardians, or tutors. Based on the Learner Enrollment and Survey Forms, it reveals that the alternative learning modalities offered by the DepEd, 7.2 million students enrollees preferred to use "modular" distance learning, TV and Radio based instruction and other modalities while 2 million enrollees preferred online learning modality, Malipot (2020). Modular learning can be in printed or digital format.

According to Mark Antony Llego(2020), modular distance learning is learners‟ learning at their own pace, in their own way and using self-learning modules (SLMs). It can be printed/digitized format/electronic copy that is appropriate to learners, and other learning resources like learners‟ materials, textbook, activity sheets, study guides and other learning materials. Learners can access electronic copies of learning materials on a computer, tablet PC, or smartphones. CDs, DVDs, USB storage and computer based applications can be used to deliver e-learning materials, including offline E-books. The teacher takes responsibility for monitoring the progress of learners. While the learners may ask help from them via-email, telephone, text messaging/instant messaging, etc. Teachers shall do home visits to learners if the learners need remediation or assistance in his/her module. Any member of the family or other stakeholders in the community can aid. In addition, modular learning is a form of distance learning that uses self-learning modules (SLM) and follows the most essential learning competencies (MELCS) provided by DepEd (Manlangit, Paglumotan and Sapera). The success and effectiveness of distance learning depends on the study materials Jayaram and Dorababu (2020).

Therefore, to cater to the needs and abilities of each student, DepEd focused on self-study modules as the main learning tool that can serve all students, which can be combined with other modalities of delivery learning that students have access to self-study materials depend on harnessing the various means and channels of communication to adapt them to the needs of learners. In distance learning like modular learning, teachers and students are apart from each other, thus SLMs must serve as teachers. All the learning experiences that a learner can have in a classroom set up will be experienced by the learners in the distance learning with the prepared SLMs. The SLMs prepared encourage autonomous/ self-directed learning (Malipot, 2020).

However, using modules has its advantages and disadvantages. According to (Nardo, M.T.B, 2017), the use of modules advocates self-directed learning. Using modules for learning leads to better self-study or learning skills among students. The concepts presented in the modules engross students in learning. The tasks provided develop a sense of responsibility among students and they progressed on their own. They learn to learn; they are empowered. In addition, the students participate in real experiences. They discover new things, and they experience their knowledge on their own. Students learn to reflect on their own experiences, thus developing new skills, learning through modular direct students to be in charge of their own learning. The use of modules has its disadvantages also.

According to Bijeesh (2017), without the presence of the faculty and their classmates who remind them of their assignments the chances of getting distracted and losing track of deadlines are high. They revealed the main challenges that emerged in the implementation of modular distance learning where budget is not enough in the making and delivery of modules; students had a hard time answering their tasks on their modules and the lack of knowledge of parents academically to guide their child/children. With all the advantages and disadvantages of using the modular learning as a learning modality, this paper aims to determine the effect of printed modular learning on the academic performance of the students.

In addition, in the study of Dangle and Sumaoang (2020) the delivery of education was a teacher standing in front of students, who sitting at their desks, in uniform rows. The technology was a stick of white chalk and a slate blackboard on which the teacher would write the lessons for the day. The teacher was the disseminator of knowledge and the students were to function as sponges to soak up the learning as the best they could from what they saw on the blackboard or read from traditional textbooks. Innovations to this educational

technology were often exemplified in the form of slight enhancements such as: a white board with colorful markers, an overhead projector, and most recently a Power Point projector. Even with those slight technology enhancements, the educational setting is often still the same; with teacher in the front of the room, students at their desks and everyone present at a specific place and time for education to take place. This has been true for children, as well as for adult learners. Many students do succeed in this educational setting while others do not. Good teachers can be incredibly effective in this setting, but is this the best context to form a learning environment for the future or which are innovations in educational technology poised to redefine the classroom and make learning more relevant, more accessible, and more interactive so that the student or adult learners are more deeply engaged in an active learning environment. Education is no longer dispensed in a traditional brick and mortar institution. Computer based training is becoming common place for professional adults and the technology is continually being enhanced. Yet, many adult learners can benefit from a blended learning environment of face to face meetings in concert with an electronic delivery system. The key is to explore how modular learning can serve as an educational approach to build a strategic plan with the result of empowering learners to achieve academic and professional success. It is crucial to create a share foundational understanding of key terms in order for all the organizational members to embrace change on common ground.

Synthesis

In the literature reviewed, it is often shown that teaching and learning are influenced by more than teaching format alone as many other factors play significant roles. The ongoing discussion in the literature suggests that it is difficult to draw general conclusions about the efficacy of the different learning as such, not least because it constitutes in significant ways a distinctive mode of learning when compared with real-world instruction. It is perhaps better, then, to look more specifically at questions such as the comparative strengths and challenges they face in schooling, the conditions which need to be in place for it to function well and the manner in which this transition is experienced by learners with different capabilities.

Due to the health threat of the pandemic, the DepEd decided to bring education to the comfort of their homes as they continuously developed different learning modalities to ensure that education is accessible to all and to ensure the continuity of education. The sudden transition from the traditional to new normal in the teaching and learning process, three learning modalities were offered by the DepEd for the school year 2020-2021, blended and distance learning modalities.

III. RESEARCH METHODOLOGY

This study deals with the research design, the respondents, the data gathering instruments and procedures, and the statistical tools used in the study.

Research Design

The study used the descriptive - quantitative design. Such design was appropriate to used for its concern was to determine the effectiveness of teaching learning modalities used by the whole population of Grade-VI teachers in the District of Calatrava I, Division of Negros Occidental, Philippines for School Year 2022-2023.

Descriptive research design is a type of research that can obtain facts about the existing conditions, detect significant relationship between current phenomena which are helpful in decision making, educational planning in internal evaluation or assessment. Descriptive research was used in researcher which concerns with the conditions or relations that exist, practices that prevail, beliefs, point of views or attitudes that is being felt (Gabion,2018).

Locale of the Study

This study was conducted at 21 schools under the District of Calatrava I Division of Negros Occidental. Some are located along the national high way and the others are in far flung area.

Respondents of the Study.

The respondents of the study were the Grade-VI teachers in the District of Calatrava I, Division of Negros Occidental, for School Year 2022-2023.

Table 1. Distribution of the Respondents

School	Number of Respondents
A	7
B	2
C	2
D	5
E	6
F	2
G	8
H	2
I	4
J	4
K	8
L	1
M	1
N	2
O	8
P	7
Q	3
R	4
S	3
T	2
U	8
TOTAL 21	**89**

Sampling Technique

The researcher used a purposive sampling technique. Purposive sampling technique is a non-probability sampling techniques in which units are selected because they have characteristics that was needed in the sample (Nikolopoulou, 2022).

The researcher believes that this was appropriate in this study since the respondents was selected and intended for grade VI teachers only because they can provide the best information needed to achieve in this study.

Research Instrument

The instrument used in this study was a researcher's made instrument. The instrument contained two parts to attain related and valuable data to come across the statement of the problem of the study.

Part I aimed to provide information of the respondents demographic profile which included their sex, age, number of years in teaching, teaching position and highest educational attainment.

Part II of the research instruments intended to determine the level of the effectiveness of teaching learning modalities of the grade VI teachers at Calatrava District I.

These researcher's made questionnaires underwent a content validation. Five validators/experts examined the validity of the instruments through its effectiveness of face to face teaching modality and blended learning modality. The experts were composed of educators in the districts of Calatrava I, II and in Calatrava Senior High Shool stand-alone. One of them was Ph.D holder in Educational Management and the rest are MaED and master teachers. For the validation of the research instruments, the evaluation tool comprised a 5-point rating scaling: 5 - Strongly Agree (SA); 4 - Agree (A); 3 - Uncertain (U); 2 - Disagree (DA) and 1 – Strongly Disagree (SD). After the development and validation of the researcher's made instruments, the researcher then constructed a 10-item teacher-made questions based on the face to face and blended learning modality. The questionnaires was used to determine the level of effectiveness in both modalities used by Grade VI in the district of Calatrava I for School Year 2020-2023.

Validity of the Instrument

Validity (Borro, 2015) refers to the appropriateness, correctness, meaningfulness, and usefulness of inference that a researcher makes.

The questionnaires was subjected to content validity analysis among the five experts. The validators were experts in this matter and obtained a mean score of 4.864 interpreted as very high. In the reason of judgement of these professionals, the items of the test and the entire data gathering tool was evaluated. It may be stated that a test or an instrument was said to have validity if on first impression it appears to measure the intended content or trait.

The comments, corrections, and suggestions of the panel of validators was incorporated in the preparation of the final draft using the scale devised by Good and Scates.

Reliability of the Instrument

The reliability of an instrument denotes its ability to gather consistent information in repeated measurements. Consequently, an instrument which yield stable, consistent data, which administered twice repeatedly, is reliable (Kuby, 2018). The results was subjected to the 30 Grade VI teachers in District of Calatrava II in the conduct of pilot testing and undergone statistical analysis using the Cronbach alpha and obtained a result of .905 reliability coefficient which means the questionnaire was highly reliable.

Data Gathering Procedure

As an initial step, a request letter was given to the office of the Department of Education, Division of Negros Occidental and the district supervisor requesting permission to conduct the research study. The researcher then ask the helped of the school head and principal to all elementary schools in the

Calatrava District I in identifying the respondents. This study underwent several stages or phases. These stages or phases started with the preparation of the researcher's made instruments which was validated and reviewed by experts. Then a 10-item questions was constructed for face to face and 10-item questions for blended learning modalities, validated, and pilot tested. An item analysis was then done to determine the validity, reliability and plausibility of the options and distractor.

After the respondents was identified, a written letter informing the respondents regarding the pertinent details of the study. To ensure fairness of the study on the effectiveness of the teaching learning modalities used by the teacher's triangulation was being employed by the researcher through the perception rating of the school head/principal in the school in terms of the level of effectiveness in face to face learning modality and blended learning modality. It was also rated by the Co-teachers of the respondents and the same instrument used, then rated by the respondents and the academic achievement of the pupils during the 3rd Quarter of the School Year 2022-2023.

During the gathering of data, clear instructions was given to the respondents in answering the survey tools. The researcher highlighted the privacy of the information obtained from the study. After gathering the data, the researcher checked and organized the data. The set of data gathered undergone appropriate statistical treatment in order to answer the identified problems of the study.

The study was conducted during the first week of April until the first week of June school year 2023-2024.

Data Analysis

In the process of the data obtained through the questionnaires, the researcher utilized the following descriptive and inferential statistics.

To determined the demographic profile of the respondents of the study in terms of sex, age, number of years in teaching and highest educational attainment, frequency count and percentage were used.

For problem 1,2,3 and 4 mean was used.

For problem 5 and 6 T-Test was used.

The study applied the following scale for the extent of effectiveness of the teaching learning modalities, the following scale was shown below.

Scale of the Extent of Effectiveness of the Teaching Learning Modalities

Mean Scale	Description	Interpretation
4.21-5.00	Very Effective	The indicators for the Effectiveness of Teaching Learning Modalities are always effective.
3.41-4.20	Effective	The indicators for the Effectiveness of Teaching Learning Modalities are frequently effective.
2.61-3.40	Moderately Effective	The indicators for the effectiveness of teaching of teaching learning modalities are sometimes effective.
1.81-2.60	Not Effective	The indicators for the effectiveness of Teaching Learning Modalities are very less effective.
1.00-1.80	Very Not Effective	The indicators for the Effectiveness of Teaching Learning Modalities are not effective.

In this study, all computations pertinent to a given problem was done using the Statistical Package for the Social Sciences (SPSS).

Ethical Considerations

The data collected in this study was preserved with utmost secrecy. The participants was informed of the nature and tenacity of the study and may choose to withdraw if they thought it unsuitable. All the documents wanted in this study was kept tightly in a safe and protected filing cabinet that only the researchers can access. Afterwards, all the information was burned and shatter so that the data cannot be read or reassembled.

IV. PRESENTATION, ANALYSIS AND INTERPERTATION OF DATA

This chapter deals with the representation, analysis and interpretation of the data that were gathered in connection with the specific problems of the study.

The presentation, analysis and interpretation of the data are hereby presented using the tabular form.

The results was subjected to the 30 Grade VI teachers in District of Calatrava II in the conduct of pilot testing and undergone statistical analysis using the Cronbach alpha and obtained a result of .905 reliability coefficient which means the questionnaire was highly reliable.

Through the following manner the data were presented, analyzed, and interpreted:

To the effectiveness of face to face teaching modality and blended learning modality.

The questionnaires was subjected to content validity analysis and obtained a mean score of 4.864 interpreted as very high. In the reason of judgement of these professionals, the items of the test and the entire data gathering tool was evaluated. It may be stated that a test or an instrument was said to have validity if on first impression it appears to measure the intended content or trait.

Profile of Teacher when Grouped According to Selected Variables

Variables	Frequency	Percentage
Sex		
male	29	32.6
female	60	67.4
Total	**89**	**100.0**
Age		
20-30	19	21.3
31-40	40	44.9
41-50	30	33.7
Total	**89**	**100.0**
Number of Years in Teaching		
1-5years	21	23.6
6-10years	49	55.1
11-15years	19	21.3
Total	**89**	**100.0**
Highest Educational Attainment		
Bachelors' Degree	**89**	**100.0**
Teaching Position		
Teacher 1	**89**	**100.0**
Teaching Modality		
Face to Face Class	53	59.6
Blended	36	40.4
Total	**89**	**100.0**

The table shows that the majority of the participants were female with 67.4% followed by male with 32.6% only. In terms of age which belonged to the age group of 31-40 years old with 44.9% obtained the highest percentage. It was also followed by 41-50 years old with 33.7%. The least number of participants was shared by those who belonged to 20-30 years old with only 21.3%.

As observed, when it comes to number of years in teaching 55.1% of the result indicated that 6-10 years got the highest percentage with more than half of the total sample size. It can be noted that 1-5 years had only slight difference in term of number of years in teaching with 23.6% compared to 11-15 years with only 21.3%. This implies that the majority of the participants were still young in the service and had so much more to learn for professional development in terms of their experience.

Lastly, the result showed that the all of the participants obtained a bachelor's degree with 100%. When it comes to teaching modality majority of the respondents were having a face a to face class with 59.6% obtained as the highest followed by blended modality with 40.4%. This implies that mostly of the schools offered a face to face class rather blended modality which makes the teaching learning process more effective and comfortable for both the teachers and the students.

This research provides new perspectives on a category of obtained corroborate conclusions reached by other studies (Hwang, 2018; Leoste et al., 2019; Goodyear, 2020; Wang et al., 2020), in which learning can be carried out in an efficient, high-quality, and satisfactory manner either through methods we choose or through methods to which the context forces us to adapt. We must choose a modality without affecting education.

Table 1. Level of Effectiveness of Face to Face Teaching Modality

Variables	Mean	Std. Dev.	Description
1.In a classroom setting, teachers can manage their topics very well because there is no longer a need to compress their topics to fit the modules.	4.92	0.28	Very Effective
2.The learners are motivated and enthusiastic in completing the tasks with their classmates.	4.77	0.43	Very Effective
3.The teaching methods of the teacher helped in understanding the topic better.	4.78	0.41	Very Effective
4.The teaching environment in the class helped in better learning.	4.80	0.39	Very Effective
5.Students can grow more and feel more comfortable interacting with and learning from each other in a classroom setting.	4.78	0.44	Very Effective
6.Having to go to class with a real teacher is livelier for learners compared to reading a pile of modules.	4.84	0.38	Very Effective
7.There are many opportunities for teachers and students to interact with each other, and problems can be solved directly.	4.85	0.37	Very Effective
8.Face-to-face class improves students' learning drive, and self-affirmation.	4.77	0.49	Very Effective
9.In face-to-face classes both lectures and practical lessons can be done which can acquire a lot of skills and knowledge for the students.	4.79	0.46	Very Effective
10.Face to face classes boost academic performance, improve mental health and well-being and help develop social engagement skills.	4.78	0.47	Very Effective
Mean	4.81	0.41	Very Effective

Scale: 4.20-5.00 (Very Effective); 3.40-4.19 (Effective); 2.60-3.39 (Moderately Effective); 1.80-2.59 (Not Effective); 1.00-1.79 (Very Not Effective)

Table 1 shows the level of effectiveness of face to face teaching modalities. As seen in the result all of the variables obtained a very effective description which makes it in totality a very effective modality with 4.81 mean rating. However, when taken individually, variable under teachers can manage their topics very well because there is no longer a need to compress their topics to fit the modules got the highest with 4.92 mean rating followed by there are many opportunities for teachers and students to interact with each other, and problems can be solved directly with 4.85 mean rating and having to go to class with a real teacher is livelier for learners compared to reading a pile of modules with 4.84 mean rating. The lowest mean obtained from face-to-face class improves students' learning drive, and self-affirmation with 4.77 mean rating having the same result for the learners are motivated and enthusiastic in completing the tasks with their classmates.

The result implies that face to face class brings numerous advantages such as it facilitates immediate and direct communications between students and teachers. In- person classes promote interactive learning opportunities. Students can actively engage in discussions wherein teachers and peers serve as a motivating factor, encouraging students to stay committed, attentive, and actively participate in the learning process. This setting hold significant value in terms of fostering meaningful learning experiences and personal growth. Moreover, the results of the data implies that students prefer to have a face to face mode of learning wherein there is a teacher who can assist and facilitate learning while having a thorough discussion of the topic. This also means that the respondents want to have a learning with good interaction and collaboration between their classmates and teachers where they can share their thoughts and opinions right away.

According to Shorey et al., (2021) There is also the potential for traditional modes of delivery to be at odds with the learning preferences of the current generation of students. In addition, One study surveyed an extensive list of students, from both domestic and foreign colleges and universities, who took classes in both mediums. The survey found that 48% of the students preferred the face-to-face medium and only 34% preferred online classes (Kishore, et al, 2019).

Table 2. Level of Effectiveness of Blended Learning Modality

Variables	Mean	Std. Dev.	Description
1. Blended learning provides a holistic understanding and transforms the learning experiences to the learners.	3.43	0.54	Effective
2. Access to learning becomes unlimited.	3.63	0.61	Effective
3. A student would be able to access their classroom from any place eliminating the need for attending the class or training at a fixed place.	3.52	0.63	Effective
4. Blended learning let students progress at their own pace.	3.5	0.53	Effective
5. Students can refer to course concepts and materials as needed and can advance when they feel ready.	3.68	0.66	Effective
6. A combination of modality makes it easy for students to look back on earlier materials and to move through coursework at their own pace.	3.55	0.54	Effective
7. Teachers can use announcement to communicate class updates, changes and new information to students and parents all at once.	3.58	0.62	Effective
8. Students can use discussion forms to ask questions, discuss topics and assignments, and work together in assigned groups and sections.	3.56	0.62	Effective
9. Parents can get a window into the classroom as their children to see what they are working on and what's on the schedule.	3.53	0.53	Effective
10. The integration of technological tools not only ensures that students can use material anytime from anywhere but it also improves accessibility for all students regardless of their learning needs.	3.61	0.60	Effective
Mean	**3.56**	**.59**	**Effective**

Table 2 shows the level of effectiveness of blended learning. Based on the result it garnered a grand mean of 3.56 mean rating with a verbal description of effective. When taken individually, students can refer to course concepts and materials as needed and can advance when they feel ready obtained a mean rating of 3.68 as the highest mean followed by access to learning becomes unlimited with 3.63 mean rating and the integration of technological tools not only ensures that students can use material anytime from anywhere but it also improves accessibility for all students regardless of their learning needs with 3.61 mean rating. Blended learning provides a holistic understanding and transforms the learning experiences to the learners got the lowest with 3.43 mean rating.

The result implies that in blended learning students spend less time with instructors which reduced interaction that can hinder the depth and quality of learning, particularly when students face challenges or require personalized assistance. However, this allow learners to progress at their own pace and focus on areas where they need additional support, fostering a more effective learning experience. The results implies further that blended learning was not so effective compared to the face to face modality wherein in this type of learning there is a mixed of face to face classes, modular learning and online learning. This type of modality is very flexible and used when the class is hampered, thus, there was no teachers facilitating learning all the time for the students physically.

As supported by (George and Mallery, 2019) blended learning, the degree of satisfaction in the students was very high, which indicates an excellent degree of significance. In addition, Each new generation of students has characteristics, interests and learning preferences that set them apart from the previous generation, and understanding these differences is necessary for educators to create learning environments that are engaging, inspiring and productive (Poláková & Klímová, 2019).

Table 3. Level of Pupils' Academic Performance in Face to Face Teaching Modality

Teaching Modalities	Mean	Std. Dev.	Description
Face to face	84.55	2.27	Satisfactory

Scale: 75- below(Did not meet Expectation); 75.00-79.00 (Fairly Satisfactory); 80.00-84.00 (Satisfactory); 85.00-89.00 (Very Satisfactory); 90.00-100 (Outstanding)

Table 3 shows the result of the level of pupil's performance subjected to face to face teaching modality. As observed in the data face to face learning obtained a mean rating of 84.55 with a verbal description of

satisfactory. It was observable that the academic performance of the students in face to face learning modality got the result of satisfactory to their level of performance subjected to face to face teaching modality.

This implies that face to face learning modality has the level of learning performance in teaching performance which shown in the result.

According to Freeman et al., (2014); Shaw et al., (2015) Specifically, face-to-face classes included traditional didactic lectures which were used to deliver course content, and workshop classes that used an active learning platform to facilitate student interaction and engagement during class . In addition, all classes, were recorded and made available to students asynchronously. The teaching strategy was designed to meet the diverse needs of students and was aimed at fostering student engagement and motivation to attend class and engage with the course materials (Dunn & Kennedy, 2019).

Table 4. Level of Pupils' Academic Performance in Blended Teaching Modality

Teaching Modalities	Mean	Std. Dev.	Description
Blended	84.19	2.09	Satisfactory

Scale: 75- below(Did not meet Expectation); 75.00-79.00 (Fairly Satisfactory); 80.00-84.00 (Satisfactory); 85.00-89.00 (Very Satisfactory); 90.00-100 (Outstanding)

Table 4 shows the result of the level of pupil's performance subjected blended teaching modality. As observed in the data blended learning obtained a mean rating of 84.19 with a verbal description of satisfactory. It was observable that the academic performance of the students in blended learning modality got the result of satisfactory to their level of performance subjected to blended teaching modality.

This implies that blended learning modality has the level of learning performance in teaching performance which shown in the result.

According to Goodyear (2020), most studies highlight that blended learning modifies the role played by students. They take part not only as participants but also as protagonists in their learning, even becoming the co-configurators of learning environment/activities together with other apprentices.

Table 5. Differences on Pupils' Academic Performance Based on Teaching Modalities

Modalities	Mean	Std. Dev.	T	df	p	Interpretation
Face to face	84.55	2.27	.741	87	.461	Not Significant
Blended	84.19	2.09				

Table 5 shows that there was no significant difference on pupil's performance based on teaching modalities since the p value of .461 was higher than 0.05 which was interpreted as not significant. The result implies that face to face and blended teaching modalities don't have a substantial impact on pupil's academic performance in the context of this study. The result implies further that these two teaching modalities have the same result when it comes to the learning outcomes hence, they have the same impact towards teaching learning process.

Another study found that there was no difference in the teaching functions of an instructor presenting the same material in the two different media (Alonso and Blazquez, 2019). Kirtman (2019), researching the difference between online and face-to-face instruction, found a significant difference in favor of the face-to-face students on the same midterm but no significant difference on the same final examination. Larson and Sung (2019) researched a course that utilized the same instructor teaching sections in face-to face, online and in a blended modes and found no significant difference in the learning outcomes.

Table 6. Correlation of Teaching Modalities and Students Academic Performance

Variables	r	N	p	Interpretation
Modalities	-.079	89	.450	Not Significant
Performance				

Table 6 shows that there was no significant correlation of teaching modalities and pupil's performance in this study. The result implies that the teaching modalities used in this study does not directly affect the performance of the pupils hence, it cannot affect pupils performance in school. Therefore, whether it was a face to face modality or a blended learning they have the same result when it comes to their performance.

Reviewed in Arday, (2022). As educators, we are entering an unprecedented era, one in which we are tasked with providing high quality instruction to engage students in their own learning despite the potential for ongoing

educational disruption. There are many challenges in this changing landscape including how to cater to students who want the flexibility of studying online or asynchronously with those that want to return to face-to-face delivery.

Singh and Stoloff (2017) surveyed a class and found that students believed they learned as much in an online course as they did in a face-to-face class. Cragg, Dunning and Ellis (2018) found in their study of a course taught in two different modalities, that there was no difference in the outcomes. Tutty and Kleine (2018) found that facilitating both online and face-to-face collaboration can lead to the development of effective learning strategies. Ünal (2018) stated that the relationship between achievement and learning modality is important in the process of teaching and learning. There should be less conflict and problem if teachers understand their own teaching styles as well as the learning modalities of their students.

V. Summary of Findings

1. Majority of the participants were female followed by male. In terms of age which belonged to the age group of 31-40 years old obtained the highest percentage. It was also followed by 41-50 years old. The least number of participants was shared by those who belonged to 20-30 years old. As observed, when it comes to number of years in teaching 6-10 years got the highest percentage with more than half of the total sample size followed by 1-5 years and lastly 11-15 years. Lastly, all of the participants obtained a bachelor's degree. When it comes to teaching modality majority of the respondents were having a face a to face class as the highest followed by blended modality
2. The level of effectiveness of face to face teaching modality is very effective. The highest of this was variables under teachers can manage their topics very well because there is no longer a need to compress their topics to fit the modules followed by, there are many opportunities for teachers and students to interact with each other, and problems can be solved directly with and having to go to class with a real teacher is livelier for learners compared to reading a pile of modules. Then, lowest mean obtained from face-to-face class improves students' learning drive, and self-affirmation with the same result for the learners are motivated and enthusiastic in completing the tasks with their classmates.
3. The level of effectiveness of blended learning was effective. The highest of this was students can refer to course concepts and materials as needed and can advance when they feel ready followed by, access to learning becomes unlimited and the integration of technological tools not only ensures that students can use material anytime from anywhere but it also improves accessibility for all students regardless of their learning. Then, Blended learning provides a holistic understanding and transforms the learning experiences to the learners got the lowest mean rating.
4. The result of the level of pupil's performance subjected to different teaching modality was satisfactory. It is observable that the two different teaching modalities got a very little difference when it comes to their level of performance subjected to different teaching modalities.
5. There is no significant difference on pupil's performance subjected to different teaching modalities
6. There is no significant correlation of teaching modalities and pupil's performance in this study.

Conclusion

Based on the findings, the following conclusions were made:

The level of effectiveness in the face to face teaching modality was very effective compared to blended learning modality wherein it only obtained an effective result. However, there is no significant difference on pupil's academic performance based on the face to face and blended learning modalities. In conclusion, the effectiveness of teaching and learning modalities depends on a combination of factors. Analyzing the effectiveness of various teaching and learning modalities such as face-to face and blended learning can provide valuable insights into their respective advantages and limitations.

Recommendation

Based from the findings and conclusions, the following recommendations were made:

1. As educators it is important to acknowledge the diverse needs of learners and provide flexibility in deadlines, assignments and participation modes.
2. Establish clear communication channels for queries and concerns, and promptly address any technical or content-related issues.
3. Regularly assess the effectiveness of the chosen modality through student feedback, learning analytic and performance metrics.
4. Consider combining the strengths of both modalities by integrating face-to-face sessions

with online resources to create a comprehensive learning experience.

5. Finding the right blend of teaching and learning modalities might require some experimentation but by staying attuned to child's preferences and adjusting your approach accordingly, you can create a supportive and effective learning environment that caters to their individual needs.
6. Researchers in the future who will conduct a similar study. It can also provide more comprehensive and more ideas about the various modalities in the performance of the students. To further attest the effectiveness of instruction using the different learning modalities for learner performance or any other factor that may be deemed helpful and constructive.

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