

Implementation of Flexible Blended Learning and Educational Practices of Public Secondary School Teachers

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Abstract. The study aimed to determine the extent of implementation of flexible blended learning and the extent of educational practices of public secondary school teachers. This study employed a non-experimental quantitative research design utilizing descriptive-correlation method. Validated questionnaire and Universal sampling procedure were utilized considering the minimal number of teachers in the research locale. One hundred twenty (120) public secondary school teachers were the respondents of the study. Using mean, pearson-r, and regression analysis, the findings revealed that the implementation of flexible blended learning was extensive while the extent of educational practices of public secondary school teachers was also extensive. Moreover, the overall results disclosed that indicators for the implementation of flexible blended learning were positively correlated to the educational practices of public secondary school teachers. Further, results from the regression analysis revealed the following have a strong influence of implementation of flexible blended learning on the educational practices of public secondary school teachers: planning, instructional methods/strategies, management, and assessment and evaluation. It is recommended that the Department of Education (DepEd) must put in place well-defined policies and rules that are consonant with the national education agenda and respond to the issues of teachers and learners. Sufficient funds must be provided to build digital infrastructure, purchase required technology, and offer internet access, especially in far-flung and disadvantaged communities.

KEY WORDS

1. Implementation of flexible blended learning
2. educational practices
3. digital infrastructure

Date Received: January 05, 2025 — Date Reviewed: February 15, 2025 — Date Published: April 24, 2025

1. Introduction

Implementing flexible blended learning educational practices among public secondary school teachers has revolutionized the traditional classroom setting by incorporating technology and online resources into the learning environment. This approach combines face-to-face instruction with online learning platforms, allowing teachers to personalize learning experiences for learners. Teachers can create engaging and interactive lessons that cater to diverse learning styles by integrating digital tools and resources. Moreover, flexible blended learning enables teachers to provide individualized support to learners, track their progress, and offer timely feedback. This innovative approach not only enhances the teaching and learning experience but also prepares learners for the digital age by developing essential digital literacy

skills. Aside from the challenge to the teachers in the preparation, simulation, and implementation of continuing teaching and learning process during the time of the health crisis, the learners' situation is another problem to be considered. Some learners may lack gadgets and access to the internet, while some may have gadgets but do not have enough internet connection. Such problems should be addressed and need an action. Implementation is the process of identifying, incorporating, monitoring, and continually refining professional learning that helps teachers enhance their practice and encourage and inspire learner's academic and non-academic growth. The Department of Education has finalized its plan to make blended learning a permanent mode of instruction to help address the shortage of classrooms and teachers in public schools. The implementation of flexible blended learning educational practices among public secondary school teachers focuses on investigating how blended teaching and learning were integrated in Philippine secondary schools. The research takes an ecological perspective to understand the complexity of implementing blended teaching and learning by examining the roles of learners, teachers, school leaders, and other educational stakeholders within and beyond the school environment. The study develops an ecological framework that provides recommendations for individuals and groups at different levels of the school's multilevel ecology, including the classroom, the school, and the broader ecosystem where the school is situated. It explores various aspects such as case studies, teaching methods, learner and teacher roles, guidelines, parent participation, learner motivation, and educational policy. The findings aim to enhance capacity building, learner engagement, and the overall effectiveness of blended learning practices in secondary education settings. These studies on the implementation of flexible blended learning educational practices among public secondary school teach-

ers have been selected for their in-depth exploration of the subject matter. They offer valuable insights into the challenges, successes, and best practices associated with incorporating blended learning approaches in secondary education. By delving into case studies, real-world implementations, and pedagogical strategies, these studies provide practical guidance for teachers and school heads seeking to enhance their teaching methods through technology integration. The research not only emphasizes the importance of learner engagement and teacher professional development but also highlights the transformative potential of blended learning in improving student outcomes and fostering innovation in public secondary schools. Overall, these studies contribute to the advancement of effective instructional practices that leverage technology to create dynamic and engaging learning environments for learners. From a global perspective in the study of "Blended Learning Process in Education" context by Khan, et. al., (2019), they concluded that blended learning could support more flexible, interactive, accessible, and varied learning experiences for learners however, its benefits lie in the systematic adaptation of technology-aided methods along with other modes of learning appropriate to the learners. The study by Ceylan and Kesici (2017) as cited in Neri (2020) investigated the effects of blended learning on the high school's academic achievement. The design used in the study was a quantitative method wherein academic achievement tests and product evaluation scales were used as data-gathering sources. The study revealed that a blended learning environment had generated a significant difference in learners' academic achievement on behalf of the experimental group. In addition, Chaney (2019) studied the effect of blended learning on Math and reading achievement in a charter school context. The study compared the academic mean scores of learners in a blended learning environment, learners who received

traditional classroom instruction, and learners who used fully online learning. The study determined that there is no statistically significant relationship between traditional, blended, and fully online learners in the math scores, nor between traditional and blended learning learners in the reading scores. However, there was a statistically significant relationship between fully online learners and higher reading scores. Adedoyin and Soykan (2020) mentioned synchronous and asynchronous as two types of online learning. Online learning in terms of synchronous, real-time lectures and time-based outcomes assessments, or asynchronous, delayed-time activities, like pre-recorded video lectures and time-independent assessments, has been adopted by universities during the health crisis (Joaquin, et. al., 2020). The teaching and learning process online is driven by the needs of the teachers and the learners. This is considered the development of online learning with the use of technologies for it offered cost savings for the learners, teachers, and the institution, increased flexibility of teaching and learning, and improved accessibility to education (Kirkwood Price, (2013) as cited in Santiago, et. al., 2021). In the new normal setting, learners and teachers agree to use a variety of e-learning resources (e.g., digital library, mobile applications, YouTube) with students using available tools (e.g., desktop computer, laptop, tablet) and integrate their lessons into online learning systems also known as Learning Management System (LMS) and meeting platforms (e.g., Edmodo, Google Classroom, Zoom, Google Meet) for teaching and learning processes. Learners' remarks and valuable feedback on the use of flexible learning are very important. Some aspects affect the competence of learners through the learning environment and its efficacy on learning. Learners aspire to adapt and demonstrate appropriate outcomes, behaviors, and perspectives to address the daily obstacles associated with distance learning, perceiving educa-

tion as a universal common good. While engagement is the antidote to hopelessness, coping strategies are the antidote to pressure and stress (Rotas Cahapay, 2021). Moreover, Yacob Saad (2020) mentioned that learning on YouTube is more flexible, interesting, and interactive and will improve their cognitive and psychomotor aspects by using various manageable functions (e.g., downloading, sharing, skipping advertisements). Lausa, et. al., (2021) also reported that Youtube was the most utilized and satisfying educational learning platform and one of the primary sources of information for learners for their assignments and school-related works. From the Philippines' perspective, in response to Department of Education Order No. 12, s. 2020 on the Adoption of the Basic Education Learning Continuity Plan (BELCP) for the School Year 2020-2021 considering the Public Health Emergency, stating that the Most Essential Learning Competencies (MELCs) shall be delivered in multiple learning modalities and platforms, which has been the legal basis to conduct this study. Due to the health crisis which makes face-to-face classes too risky, education is indeed at great stake. Flexible blended learning is a learning arrangement free from the limitations of time, place, and pace of study. FBL, as operationally defined, is a common term for flexible and blended types of instructional delivery. In consideration of the current situation in the province, MSC has implemented FBL with a restriction on face-to-face instruction. The college prefers to integrate FBL, focusing on utilizing both online and modular learning. Synchronous learning refers to the use of e-learning that requires the teachers and the learners to be in the learning environment simultaneously. In this type of learning, classes usually happen via Zoom meetings, Google Meet, Microsoft Teams, and other e-learning platforms that allow interactive and collaborative scenarios between the teacher and the learners. Synchronous learning is a more structured learning strategy

where the courses are scheduled at designated class hours and in live virtual classroom settings. In this way, learners benefit from real-time interactions and get instant messaging and feedback when needed (Littlefield, 2018 as cited by Huang, et. al., 2020). According to Chua, et. al., (2021), to meet the lesson's objectives, both teachers and learners must establish motivation and share responsibility. Learners must also think that by using technology, they will be more able to understand and appreciate the lesson. Learners must be encouraged to engage in reflective practice regarding their learning and experiences with ICT, as well as their communication and relationship with instructors and classmates, to develop a competent classroom. Conversely, asynchronous learning focuses more on offline learning. Electronic versions of modules and other course materials, such as lecture audio-visuals, are typically uploaded or distributed via learning platforms (such as Google Classroom, Facebook Groups, Websites, etc.), which allow learners to access and download the materials at any time. Asynchronous learners are unable to receive messages or comments instantly. Furthermore, the course material is offered via various learning management systems or forums rather than in-person classes (Littlefield, 2018, as quoted by Huang, et. al., 2020 as cited in Adling, 2022). Learners living in isolated parts of the province, where maintaining a stable internet connection and network signal has proven to be a significant challenge, can opt for either fully remote or modular learning, wherein printed copies of the modules are sent to them. The immediate response of educational institutions to continue learning leads to the implementation of flexible learning. Cassidy, et. al., (2016) as cited in Adling (2022) defined Flexible Learning (FL) as "a pedagogical approach allowing for flexibility of time, place, and audience, including but not solely focused on the use of technologies". Hence, the Commission on Higher Education

(2020) introduced flexible learning through the CHED Memorandum Order (CMO) No. 04 series of 2020. It adapted and promulgated guidelines on flexible learning to be implemented by private and public higher education institutions (HEIs) beginning AY 2020-2021 and shall continue in the school year 2021 and thereafter. This led academic institutions to migrate from face-to-face to online learning. To cope with and meet the technical requirements of online learning, educational institutions made efforts to capacitate their faculty on flexible learning and teaching options, approaches, strategies, pedagogies, and modalities conducted in the form of webinar series. In the meanwhile, public school teachers can use the online DepEd Commons platform from the Department of Education (DepEd) to facilitate distance learning. Only teachers with access to the internet and appropriate resources are urged to use this platform for distant learning arrangements, considering the technological limitations that many have encountered (Bagayas, 2020). Kilag, et. al., (2023) also explored flexible learning options (FLOs) on the parameters of the Basic Education Learning Continuity Plan (BE-LCP) in the Philippines. This research is relevant to our research as it provides insights into the different forms of distance learning that are being implemented in the Philippines and how they are perceived by learners. In the context of Davao City, establishing social value in the implementation of flexible blended learning and educational practices among public secondary school teachers requires addressing several key gaps. One prominent issue is the unequal access to technology across schools, with some teachers and students lacking reliable internet connectivity, digital devices, and necessary technological infrastructure. This digital divide hinders the seamless integration of blended learning, creating disparities in student learning experiences and opportunities. Furthermore, many public secondary school teachers in Davao City face

gaps in digital literacy and professional development. While the shift to blended learning demands the use of digital tools and online platforms, not all teachers are fully trained to adapt their instructional strategies to a blended learning model. The absence of continuous training and support further widens the gap in delivering quality education in this format. Another important gap is the misalignment between instructional approaches and diverse learner needs. Flexible blended learning offers the potential for personalized education, however many teachers in Davao City may still rely on traditional, one-size-fits-all teaching methods. This limits the effectiveness of blended learning in addressing the varying learning styles, paces, and challenges faced by learners. Additionally, there is often insufficient stakeholder involvement, particularly from parents and local communities, in supporting blended learning initiatives. A lack of coordinated effort between teachers, learners, and families can undermine the social value of this educational approach, as it relies on community participation to maximize its benefits. Addressing these gaps, by improving access to technology, providing ongoing teacher training, personalizing instructional strategies, and fostering community engagement can significantly enhance the social value of flexible blended learning in Davao City. It would not only promote educational equity but also empower teachers and learners to thrive in a more dynamic and adaptable learning environment.

1.1. Theoretical/Conceptual Framework—

This study is anchored on Blended Learning Theory by Graham (2006) as cited in Albinda (2021). This theory of Blended learning systems combines face-to-face instruction with computer-mediated instruction. Blended learning is “the thoughtful integration of classroom face-to-face learning experiences with online learning experiences”. Blended learning is the combination of instruction from two historically separate models of teaching and learning: tra-

ditional face-to-face learning systems and distributed learning systems. This is supported by the Theory of Experience by Dewey (1934) as cited in Alonge (2020). Dewey, experience is a “natural” phenomenon, not outside of the human species but completely inside of it as part of our evolutionary make-up. Experience denotes the way living organisms interact with their environment. Experiential learning focuses on the idea that the best way to learn things is by having experiences. Those practices then stick out in your mind and help you retain information and remember facts. His theory suggests that years of teaching can strengthen teachers’ capabilities, beliefs, and strategies. Teachers achieve this through constant interaction and by making new interpretations based on their meaning-making process. Another theory that has relevance to the process of applying flexible blended learning as well as instruction by teachers is the Community of Inquiry (CoI) Framework, created by Garrison, Anderson, and Archer (2000). According to this theory, there exists a model used for planning and assessing blended learning environments by reinforcing the synthesis of three components essential to its framework: cognitive presence, teaching presence, and social presence. Within the context of flexible blended learning, the CoI model assists educators in developing effective learning experiences that integrate online and face-to-face components. It helps teachers to develop critical thinking (cognitive presence), excellent teaching design and facilitation (teaching presence), and facilitating a sense of community and interaction among learners (social presence). The framework assists educators in modifying instructional practices to respond to the multivariate needs of learners in flexible environments so that learning remains purposeful, collaborative, and engaging. Therefore, the Community of Inquiry Framework is a theory on which the successful application of blended and flexible models of learning is based. Presented in Figure

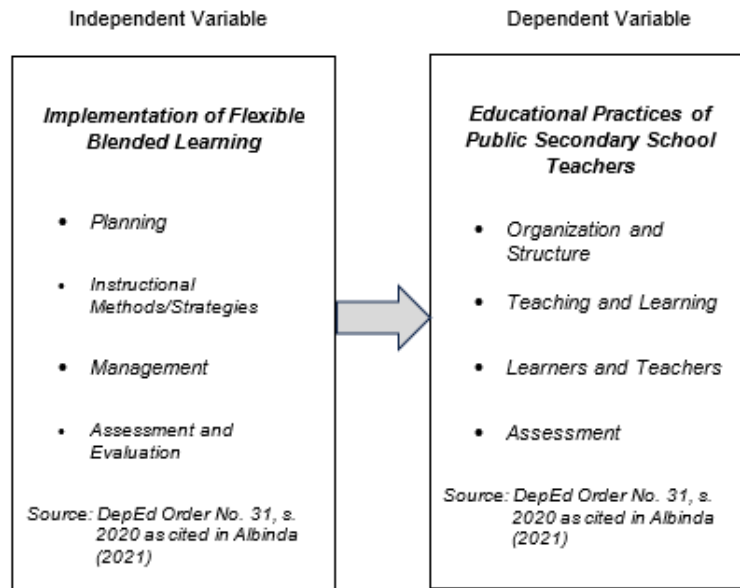


Fig. 1. Theoretical and Conceptual Framework of the Study

1 is the theoretical and conceptual framework of study where the implementation of flexible blended learning with the indicators of independent variable namely: planning, instructional methods/strategies, management, assessment, and evaluation, and the dependent variable is the educational practices of teachers' which include organizational and structure, teaching and learning, learners and teachers, assessment of public secondary school teachers of Cluster 8, Division of Davao City.

2. Methodology

This chapter discusses the research methods, which give direction in this investigation. It includes the research design, research respondents of the study, research instrument, and the data gathering procedures.

- 2.1. Research Design**—The non-experimental quantitative research design using the correlational method were used in this study. Escalante (2021) states that the descriptive correlational method is utilized to identify the relationship and relationship between two or more variables. More importantly, Bedo (2021) highlights the usage of this methodology since it explains the nature of the data and gives an individual's description of the study. Since it evaluates the use of flexible blended learning and instructional techniques by public secondary school teachers in Cluster 8, Division of Davao City, this study is descriptive. This is correlational because it controls how flexible blended learning is implemented and how public secondary school teachers educate.
- 2.2. Research Ethics**—The research will promptly observe the protocols deemed appropriate and necessary as the standard guidelines in carrying out the research study following the study protocol assessment criteria, particularly in managing the population data. The survey questionnaire with supporting authors

were submitted for further evaluation. After approval from the Ethics Committee, the researcher will proceed to the next study phase. Social Value. The social importance of adopting flexible blended learning and teaching practices for public secondary school teachers is in its ability to improve accessibility, inclusivity, and overall instruction effectiveness. Integrating online and face-to-face learning, flexible blended learning enables teachers to provide for different needs of learners, such as learners from marginalized communities, learners with disabilities, and learners with financial constraints. In addition, this method encourages ongoing professional development for teachers, empowering them with digital skills and innovative pedagogical practices that enhance teaching delivery. It also encourages work-life balance among teachers through the possibility of more flexible lesson planning and assessment techniques. Community level, however, the effective deployment of flexible blended learning enhances the educational system's ability to withstand crises, including pandemics and natural disasters, to ensure continuity of learning. Flexible blended learning is also in line with international trends in education in the 21st century, gearing learners to thrive in a world dominated by technology. Until now, to optimize its social benefit, there should be proper infrastructure, sufficient training, and robust policy support. Resolution of issues like digital inequality, workload management, and teacher preparedness is vital in ensuring that flexible blended learning results in effective and lasting enhancements in the educational system. Informed Consent. The researcher will ask for respondents' permission through written informed consent. They were adequately informed about the purpose of the study, and ample explanation was given to them for a better understanding of the reason for their participation so that they can choose whether to participate or not. It will be made clear that respondents' involvement in the study was volun-

tary. If they refuse to participate, the researcher will not force them. Besides, the researcher was cautious in ensuring the respondents' psychological well-being. Written permission was secured from the respondents. The researcher will inform the respondents that the study aims to conduct a study on the role of educational management in enhancing teacher professionalism. Vulnerability of Research Participants. The study's respondents were teachers, so they will not be considered vulnerable since all of them were of legal age, and they will not be considered highly vulnerable psychologically. The researcher will emphasize that the survey was set at the respondents' convenience. Also, the researcher was protected by the confidentiality of the information disclosed. Privacy and Confidentiality. This study will observe the Data Privacy Act of 2012. The researcher ensured that the data cannot be traced back to the participant, who were the natural source of information, to protect the participants' identities. Moreover, the researcher will ensure that no personal data was shared without the respondents' consent. Thus, access was limited to the researcher alone to ensure that no personal data was exposed. To protect the privacy of the respondents, if were assured that the researcher is the only person who can access the survey information. After the necessary data is collected, the researcher will permanently delete all the survey results to ensure that data cannot be traced back to the respondents, who are the natural sources of information. Risk, Benefits, and Safety. In administering the survey questionnaires, the researcher fully disclosed to the respondents the nature of their participation and thoroughly and adequately explained the purpose and benefits of the study, as well as the confidentiality of their responses, as stated in the online survey questionnaire. The respondents, without restrictions, were able to ask questions related to the study. Further, the researcher ensured that the respondents were not subjected to harm in any

way whatsoever. Moreover, the study's questionnaire and interview guide did not contain any derogatory or unacceptable statements offensive to the respondents. Likewise, the study was designed purely to collect academic information related to the research, and respondents were not asked for personal information. To minimize inconvenience, the researcher ensured that the respondents were given ample time to answer the survey questionnaire online. The respondents were given the freedom not to answer questions that made them feel any psychological or emotional distress, and they were free to withdraw as respondents if they could not discuss the information being asked of them. The researcher valued their participation and placed their welfare as the highest priority throughout the study. Justice. To avoid impartiality in choosing the respondents, the researcher regarded all respondents equally, regardless of whether they became participants. The researcher was not prejudiced in selecting respondents for the study. Anyone who met the qualifications of being bona fide permanent-regular secondary teachers in the purposely selected schools was included. During the study, the researcher respected the respondents by interrupting their routines as little as possible. To compensate for the time spent during data gathering, the researcher gave a token of appreciation to the respondents. This token was an assortment of souvenirs. The tokens were sent via courier and were carefully sealed in a package. Each token was also sanitized before being sent to their doorstep. Transparency. Any communication concerning the research was done with honesty and transparency. To safeguard the welfare of the participants, the researcher adequately implemented the methods discussed in the study. All the necessary documents that supported the data analysis were included. Notably, the researcher described the extent of the respondents' involvement in the study and shared how objectivity was maintained in an-

alyzing data and presenting the study results. Qualification of the Researcher. The researcher ensured that other factors, such as conflicts of interest, did not influence the respondents' responses. The respondents, as well as the school administrators of the participating schools, were able to access the findings of the study because the information was made available, provided that proper protocol was followed to protect the anonymity of the respondents. The researcher also acknowledged the effort of every person who contributed to the study's success. The Schools Division of Davao City was given a furnished copy of the research results so that it could be accessed by the respondents and used for learning and further study. Adequacy of Facilities. The researcher engaged the respondents in a conducive environment and provided ample learning materials, which were made available throughout the study and within the time set by the researcher. The accuracy of data gathering from the respondents was ensured by properly encoding their ratings on days when the researcher was energized, in order to avoid encoding errors. Additionally, the analysis and results gathered were proficient and aligned, serving as a primary basis for adequacy. Community Involvement. Community involvement during every research phase, from planning to reporting, was considered a good practice. Hence, the researcher shared the findings generated with the community. Community involvement was accorded primacy in making decisions about the research agenda, appropriate methods to apply in their context, and how to use the results or findings. The findings of the study were shared with the community through gatherings, fora, and conferences.

2.3. Research Respondents—This study was conducted in thirteen (13) schools of Cluster 8, Division of Davao City. The respondents were composed of 120 selected teachers of Cluster 8, Division of Davao City. They have been in the service for at least five to ten years of

teaching experience in the Department of Education (DepEd) and have said something about the implementation of flexible blended learning and educational practices of public secondary school teachers. Random sampling techniques were employed in this study. The respondents of this study were the 110 randomly selected public secondary school teachers of Cluster 8, Division of Davao City for School Year 2023-2024. Randomly selected large schools were used in the study. The classification of the schools was based on the DepED Memorandum No. 32, series of 2020. Using Slovin's Formula at a confidence level of 0.05, the respondents were chosen through random sampling. The required number of respondents to represent the study was drawn from a total population of one hundred seventy-two (172). Thus, the total population of respondents was one hundred twenty (120). Random sampling was applied in this study due to the wide geographic scattering of the respondents. In this type of sampling, every member of the population had an equal chance of being selected to participate in the study. The main goal of random sampling was to focus on characteristics of a population of interest that would best enable answering the research questions. The idea was to concentrate on the precise similarity and how it related to the topic being researched.

2.4. Research Instrument—This study was adapted a questionnaire on the implementation of flexible blended learning was patterned and adapted by the researcher from on Blended Learning Theory by Graham (2006) as cited in Albinda (2021). This theory of Blended learning systems combines face-to-face instruction with computer-mediated instruction. Blended learning is “the thoughtful integration of class-

room face-to-face learning experiences with on-line learning experiences”. This is supported by the Theory of Experience by Dewey (1934) as cited in Albinda (2021). Dewey, experience is a ‘natural’ phenomenon, not outside of the human species but completely inside of it as part of our evolutionary make-up. Experience denotes the way living organisms interact with their environment. Experiential learning focuses on the idea that the best way to learn things is by having experiences. The questionnaire was modified mainly through the researcher's preferences to suit the needs of the study. The adapted questionnaire was validated by experts from the DepEd-Division of Davao City. The validity of the instrument was ensured through expert opinions and pilot testing. To ensure the reliability of the instrument, a pilot test was conducted by calculating the value of Cronbach's Alpha with the obtained value of 0.906. The questionnaire was divided into two (2) parts implementations of flexible blended learning and educational practices of public secondary school teachers. Hence, Cronbach's value of the construct meets the minimum reliability of 0.906 which means that the measures used are consistent enough for the study. In terms of the instrument's face validity, the items were modified to suit the purpose of this study and were validated by experts. The questionnaire was presented to the adviser for comments, corrections, and suggestions. Part 1 of the questionnaire contained the items implementation of flexible on blended learning with the following: planning, instructional methods/strategies, management, assessment, and evaluation. The five-point Likert scale were used in this study in the implementation of flexible blended of public secondary school teachers.

Part 2 pertains to the educational practices with the dimensions, namely: organizational and structure, teaching and learning, learners and teachers, and assessment. The perceptions

of the respondents among the public secondary school teachers were based on the following Five-point Likert rating scales:

Scale Descriptive Ratings and Interpretation on the Implementation of Flexible Blended Learning

Range	Descriptive Equivalent	Interpretation
4.20–5.00	Very Extensive	The implementation of flexible blended learning is always evident.
3.40–4.19	Extensive	The implementation of flexible blended learning is oftentimes evident.
2.60–3.39	Moderately Extensive	The implementation of flexible blended learning is sometimes evident.
1.80–2.59	Less Extensive	The implementation of flexible blended learning is rarely evident.
1.00–1.79	Not Extensive	The implementation of flexible blended learning is not evident.

Scale Descriptive Ratings and Interpretation of Teachers' Educational Practices

Range	Descriptive Equivalent	Interpretation
4.20–5.00	Very Extensive	The educational practices of teachers are always evident.
3.40–4.19	Extensive	The educational practices of teachers are oftentimes evident.
2.60–3.39	Moderately Extensive	The educational practices of teachers are sometimes evident.
1.80–2.59	Less Extensive	The educational practices of teachers are rarely evident.
1.00–1.79	Not Extensive	The educational practices of teachers are not evident.

2.5. *Data Gathering Procedure*—Permission to conduct study. In a letter, the researcher requests authorization from the Graduate School Dean to carry out this research investigation. Through routes to the Office of the Public Schools District Supervisor (PSDS) of the various schools, the researcher would obtain a permit from the Office of the Schools Division Superintendent of the Division of Davao City to perform the study. Distribution and retrieval of questionnaires. The sets of questionnaires are distributed to the respondents using Google Forms and email addresses belonging to the school administrators and teachers after the permit to conduct the study is approved. The questionnaires were collected as soon as the respondents have finished answering them and returned via the researcher's messenger or

email address. Collection and statistical treatment of data. The data was collected during the availability of the respondents; therefore, the collection of data was based on the protocols set by the Inter-Agency Task Force (IATF) standards. It is a task force organized by the executive of the Philippine government to respond to affairs concerning emerging infectious diseases in the Philippine which was convened in January 2023. The collection of data was con-

ducted following the protocols of IATF to avoid being contaminated and infected by virus. For some participants who were missed answering the questionnaire, a video call, via messenger, viber, zoom, or Google Meet was used to gather the data or responses of the participants. These were submitted to the statistician for analysis. The researcher together with the statistician tabulated the data, analyzed and subjected them for statistical analysis.

2.6. Data Analysis—The following statistical tools were used in the analysis and interpretation of the responses in this study: Mean. It was used to determine the level of implementation of flexible blended learning and educational practices of public secondary school teachers of Cluster 8, Division of Davao City. Using the mean as a statistical tool in analyzing the implementation of flexible blended learning and educational practices of public secondary school teachers offers valuable insights into the overall effectiveness and impact of these initiatives. The mean, or average, provides a measure of central tendency that summarizes the data points into a single value, making it easier to interpret and compare different courses or programs. By calculating the mean of learner achievement or learning outcomes in blended learning courses, researchers can assess the overall performance levels of learners in these programs. Moreover, when analyzing the effectiveness of flexible blended learning, comparing the mean student achievement in blended learning courses to that of traditional classroom settings can help identify any significant differences in learning outcomes. This comparison enables teachers and policymakers to gauge the success of implementing blended learning in improving learner performance and engagement. Overall, the mean serves as a valuable statistical tool in the evaluation of flexible blended learning and educational practices of public sec-

ondary school teachers by providing a concise summary of data, facilitating comparisons, and enabling informed decision-making based on quantitative evidence. Pearson Product Moment Correlation Coefficient (Pearson-r). This statistical tool was used in determining the significant components of the implementation of flexible blended learning and educational practices of public secondary school teachers in Cluster 8, Division of Davao City. Using Pearson's correlation coefficient (Pearson-r) as a statistical tool in analyzing the implementation of flexible blended learning and educational practices of public secondary school teachers offers valuable insights into the relationships between different variables within these initiatives. Pearson-r is a measure of the strength and direction of a linear relationship between two continuous variables, making it particularly useful in assessing the associations between various factors in blended learning environments. Moreover, Pearson-r can be employed to examine the correlation between implementation quality factors, such as course structure, instructional guidance, learner feedback mechanisms, and learning outcomes. By calculating correlation coefficients, researchers can identify which aspects of the educational design are most strongly associated with positive learner outcomes, helping to inform future instructional strategies and program enhancements. Multiple Linear Regression. This was utilized to determine the signifi-

cance of the implementation of flexible blended learning influences educational practices of public secondary school teachers in Cluster 8, Division of Davao City. Multiple linear regression is a valuable statistical tool in analyzing the implementation of flexible blended learning and educational practices of public secondary school teachers due to its ability to assess the relationships between multiple independent variables and a single dependent variable. By using multiple linear regression, researchers can investigate how factors such as course structure, teacher-learner interaction, instructional quality, and technology integration collectively influence learner achievement, engagement, and overall learning outcomes in blended learning environments. Moreover, multiple linear regres-

sion can help identify which specific aspects of educational design and teaching practices have the most significant impact on learner success in blended learning settings. By analyzing the regression coefficients and significance levels of different variables, educators can prioritize interventions and improvements that are most likely to enhance learner learning experiences and outcomes in blended learning programs. In summary, multiple linear regression is a powerful statistical tool in the evaluation of flexible blended learning and educational practices of public secondary school teachers as it allows for a comprehensive analysis of the complex relationships between multiple factors and learner outcomes, aiding in the improvement and optimization of blended learning programs.

3. Results and Discussion

Here, the outcomes of the data collected from the research are described. The two sets of research instruments used to determine the extent of implementation of flexible blended learning and its relation to the educational practices of the public secondary school teachers in Cluster 8, Division of Davao City. The results and interpretations are discussed according to the way the problems were stated. It solves the following subheadings: the level of implementation of flexible blended learning as to planning, instructional methods and techniques, management, and assessment and evaluation; the extent of educational practices of public secondary school teachers as to organization and structure, teaching and learning, learners and teachers up and evaluation; and also, the extent of factors of implementation aspect of blended flexible learning that affect significantly the educational practices of the public secondary school teachers of Cluster 8, Division of the City of Davao.

3.1. Extent of Implementation of Flexible Blended Learning —Summary on the Extent of Implementation of Flexible Blended Learning. The extent of implementation of flexible blended learning is summarized Table 1. Result revealed the overall mean score of (4.11), categorized as extensive. This means that respondents have been making a concerted effort to incorporate this into their teaching and learn-

ing and have a good commitment to this or have a demonstrated impact on improvements in teaching and learning outcomes. Bautista and Mendoza (2022) discuss the experiences of Philippine public secondary school teachers in adopting blended learning. Their work, published in the Journal of Educational Technology, highlights the difficulties teachers encounter in using this form of learning and the coping strategies they use to address these difficulties.

Table 1. Summary on the Extent of Implementation of Flexible Blended Learning

No	Indicators	Mean	Descriptive Equivalent
1	Planning	4.10	Extensive
2	Instructional Methods and Strategies	4.02	Extensive
3	Management	4.19	Extensive
4	Assessment and Evaluation	4.13	Extensive
Overall Mean		4.11	Extensive

In terms of indicator 3, “Management” showed the greatest mean score of (4.19), which also interpreted as extensive. Which indicates that respondents believe that the management in flexible blended learning is effectively and consistently maintained. It shows a profound commitment to managing the learning process in a way which makes it efficient and makes it productive. Flexible learning modalities refer to the adoption of multiple learning pathways, such as availability of online courses, hybrid programs, evening classes, asynchronous learning and flipped classrooms. Different modalities offer varying degrees of flexibility around when, where, and how fast learning occurs, which aligns with the different demands of working learners (Guan Benavides, 2020). Online courses, for example, empower learners to consume material and participate in discussions from a distance, offering flexibility in relation to work hours and location. In comparison, hybrid programs integrate online and face-to-face components (Abdous, 2019). For working individuals, evening classes offer a means to study without interfering with regular job hours. In asynchronous learning, learners can access course materials and complete assignments according to their timelines, which accommodates different work schedules, personal commitments, etc. (Sebullen, 2023). Meanwhile, the lowest average score for the indicators was (4.02) is on the level of “Instructional

Methods and Strategies” which still indicates extensive. This means that the methods and strategies are effective and well-regarded but may fall short of expectations against many of the other things assessed. Autumn, however, encourages growth and change, particularly when it comes to polishing and perfecting these designs pedagogies to clearly meet the needs of learners and teachers. As Nerantzi (2020), explained, it is the teacher’s responsibility to guide learners to become independent in their learning (self-directed and self-regulated) so that they continue to study and advance beyond their school learning and contribute to local communities and society. Hence, it is important that effective teaching methods are implemented in a nurturing atmosphere provided in such a setting where there is no dependence, only gradually becoming independent. Teachers are looking for use of online apps for teaching and learning purposes to becoming a better blended teaching expert. They make sure that during the time they might experience some internet connection problems, there is still a way to continue their class without interruption. Digging deeper into the aspects of creativity and innovation in education, we find that the most effective facilitators of education reforms are teachers, and the crucial vehicle for giving them the means and tools to effectively implement such reforms is through professional development (Tran, et. al., 2020). From the table above, it can be observed that

management, assessment and evaluation, planning, and instructional methods and strategies were void extensive. The least of the indicators of implementation of flexible blended learning was on the instructional methods and strategies. Consequently, due to the nature of teaching or teaching aides adopted for teaching remotely, it was unavoidable for distinct groups to develop distinct skill sets from teaching via distinct platforms. Teachers at many public schools said the government offered TV and radio schedules; private school teachers said they had received more hands-on digital tools like laptops and internet bundles. This means that there is a disparity in the development of digital skills infrastructure for the teachers as well as the learners. In contrast, usage for language apps, virtual tutoring, video conferencing tools, or online learning software, has spiked tremendously since COVID-19 (Cathy Li, 2020). Having teachers' trainees teach digital skills is, moreover, challenging, as the research literature has been saying for quite a longtime. This study is also in line with the statement of Shamir-Inbal Blau (2016) as cited in Galo (2021) that course tasks that are defined to create digital literacy skills do not develop such skills. Regarding this, the stated results indicate a common agreement between the learners pertaining to the importance of col-

laboration for the learning processes and the learning outcomes. In addition, research findings suggest that such a collaboration on digital platforms is best supported, which requires an even greater development of socio-emotional thinking skills. In the same ICT contexts, it allows sharing of information, ideas and feedback about outcomes created with peers.

3.2. Extent of Educational Practices of Public Secondary School Teachers—Summary on the Extent of Educational Practices of Public Secondary School Teachers. The extent of educational practices of public secondary school teachers is summarized in Table 2. The result revealed the overall mean score of (4.04), categorized as extensive. This means that teachers' practices are consistently and frequently applied across various dimensions of their professional responsibilities. It also implies that teachers are highly engaged in strategies that support effective teaching and learning, including planning, assessment, instructional delivery, and feedback. Abella and Cadorna (2024) conducted a comprehensive study assessing the research competence of 440 public school teachers in Ilocos Sur. Their findings highlighted the need for targeted professional development programs to enhance teachers' research skills, which are integral to effective assessment practices.

Table 2. Summary on the Extent of Educational Practices of Public Secondary School Teachers

No	Statements	Mean	Descriptive Equivalent
1	Organization and Structure	4.06	Extensive
2	Teaching and Learning	4.02	Extensive
3	Learners and Teachers	4.03	Extensive
4	Assessment	4.05	Extensive
Overall Mean		4.04	Extensive

Particularly, indicator 1, “Organization and Structure”, received the highest mean score of (4.05), categorizing it as extensive. This means that teachers consistently demonstrate proficiency in organizing and structuring their educational activities to enhance effective teaching and learning. This indicates that teachers excel in lesson planning, classroom activity management, and establishing a well-structured learning setting that is in line with curriculum objectives. Daka, et. al., (2021), the real success of any education system can be traced to teacher quality, which is heavily determined by a proper teaching and learning process. The teacher’s role is critical in ensuring all quality education which helps them much needed and meaningful shifts in the society. Hence, quality of education depends upon quality of those who impart it. With school structure representing the implementation of leadership roles, it is important to focus on the nature of organizational structure in place to further understand the dynamic of leadership and management within the selected school. On the other hand, item number 2, “Teaching and Learning” received the lowest mean score of (4.02), which also categorized as extensive. This means that the teachers’ efforts or practice in this domain are perceived as considerable and there is potential for betterment relative to other items or domains that scored higher. It also suggests that key groups understand that strong teaching and learning practices exist but that they identify possible focuses for greater effectiveness or a more exemplary level of performance. Niknam and Thulasiraman (2020), educational society have been in a need of a learner-based learning system which flexibly adjusts pedagogy, curriculum as well as learning environments of the learners according to their learning styles and needs. The limitation of a one-size-fits-all approach of the technology-enabled learning systems can be overcome by providing personalized learning system which can tailor itself while supporting different learn-

ers. The vision is to build a learning system that tailors itself based on a learner’s potential and requirements to deliver personalized learning. Further, teachers utilize technologies to optimize their work, professional development and creation of new techniques, thinking, reflecting on practice, and engaging learners in a variety of relevant activities and assignments for improved academic achievement (Paudel, 2021). Technology has brought a paradigm shift in the relationship between teachers and learners. The use of technologies to improve their work, professional development and creation of new techniques, thought, reflection of the practice and the involvement of learners into a different type of actual activities and home assignments to improve studies accomplishments. From the table above, it can be observed that organization and structure, teaching and learning, learners and teachers, and assessment were extensive. The least of the indicators of educational practices of public secondary school teachers was on the teaching and learning. As a result, when a motivated student starts to look for information, the idea of unity between teaching and learning comes into question ultimately leading to a process of self-learning as seen in several studies (Rubin, 2019; Valsiner, 2020) and this self-learning, leads to the negation of institutional objectives.

3.3. Significant Relationship Between the Implementation of Flexible Blended Learning and Educational Practices of Public Secondary School Teachers of Cluster 8, Division of Davao City—The overall analysis of the data presented in Table 3 reveals a significant relationship between the implementation of flexible blended learning and the educational practices of public secondary school teachers in Cluster 8, Division of Davao City. The correlation coefficient r -value of 0.716 with a p -value 0.000 suggests a strong positive relationship, indicating that as flexible blended learning is effectively implemented, educational practices also improve.

The strong correlation between planning and instructional strategies also implies that targeted interventions should focus on these areas, ensuring that public secondary school teachers of

Cluster 8, Division of Davao City are equipped with the necessary skills to design and deliver high-quality blended instruction.

Table 3. Significant Relationship Between the Implementation of Flexible Blended Learning and Educational Practices of Public Secondary School Teachers of Cluster 8, Division of Davao City

Implementation of Flexible Blended Learning	r	p-value	Decision on H_0
Planning	0.554	0.000	Reject
Instructional Methods and Strategies	0.507	0.000	Reject
Management	0.480	0.000	Reject
Assessment and Evaluation	0.195	0.033	Reject
Overall	0.716	0.000	Reject

With this, the rejection of the null hypothesis (H_0) further confirms that flexible blended learning significantly influences various aspects of educational practices, necessitating continuous improvements and support for teachers adapting to this mode of instruction. Moreover, the need for comprehensive professional development programs to support teachers in adapting their educational practices to flexible blended learning environments. Among the implementation of flexible blended learning indicators, Planning emerged as the most influential factor among the sub-indicators, with a correlation coefficient r-value of 0.554 and a p-value of 0.000. This suggests a moderately strong positive relationship between planning and effective teaching practices, reinforcing the argument that well-structured lesson planning enhances pedagogical delivery. Effective planning ensures that instructional objectives are aligned with curriculum standards, thereby promoting a coherent learning experience for learners. For teachers in Cluster 8, Division of Davao City, this implies the need for professional devel-

opment initiatives focusing on strategic lesson planning. Instructional Methods and Strategies ranked second, with a correlation coefficient r-value of 0.507 and a p-value of 0.000, indicating a moderately strong positive correlation. This finding aligns with the principle that diverse instructional methods enhance learner engagement and learning outcomes. Public secondary school teachers of Cluster 8, Division of Davao City who employ innovative teaching strategies, such as differentiated instruction, active learning, and technology integration, tend to foster better learner participation and comprehension. Given the implications for Cluster 8 teachers, it is essential to invest in continuous professional development that equips teachers with contemporary instructional strategies. Management was found to have a correlation coefficient r-value of 0.480 and a p-value of 0.000, signifying a moderate positive relationship with teaching effectiveness. Effective classroom management is crucial for maintaining a conducive learning environment, which directly impacts student performance and engagement. This result sug-

gests that public secondary school teachers of Cluster 8, Division of Davao City need to adopt proactive classroom management techniques, such as establishing clear expectations, fostering positive teacher-learner relationships, and implementing consistent disciplinary measures. Assessment and Evaluation yielded the lowest correlation coefficient r -value of 0.195, and a p -value of 0.033, yet it remains statistically significant. This indicates a weak but meaningful relationship between assessment practices and educational outcomes. While formative and summative assessments are integral to measuring learner progress, the relatively lower correlation suggests potential gaps in assessment literacy among teachers. In the context of Cluster 8, Division of Davao City, this finding highlights the need for targeted training on assessment design, data interpretation, and feedback mechanisms. Teachers must be equipped with the skills to construct assessments that accurately reflect learner learning and provide actionable insights for instructional improvement.

3.4. Regression Analysis on the Significant Influence of the Implementation of Flexible

Relatively, the overall significance of the regression analysis confirms that planning, instructional methods strategies, management, and assessment evaluation are significant factors in shaping the educational practices of public secondary school teachers in Cluster 8, Division of Davao City. Hence, the set null hypothesis of this study is rejected. The results further highlight the necessity for targeted interventions that support teachers in adapting to blended learning environments. Professional development programs should emphasize the integration of effective instructional strategies, meticulous lesson planning, robust classroom management techniques, and innovative assessment methods. As blended learning continues to evolve, it is imperative for teachers to remain

Blended Learning on the Educational Practices of Public Secondary School Teachers of Cluster 8, Division of Davao City—The regression analysis presented in Table 4 provides significant insights into the influence of the implementation of flexible blended learning on the educational practices of public secondary school teachers in Cluster 8, Division of Davao City. The overall R -value of 0.741 and R -squared (R^2) value of 0.549 indicate that the regression analysis explains approximately 54.90 percent of the variance in educational practices, demonstrating a moderate-to-strong relationship. The F -value of 34.977 and the p -value of 0.000 confirm the statistical significance of the analysis, reinforcing the assertion that flexible blended learning implementation substantially influences educational practices. Blended learning approaches significantly impact pedagogical strategies and teacher effectiveness. This implies that educational leaders in Cluster 8 should consider further investments in blended learning initiatives to enhance teaching methodologies.

adaptive and receptive to emerging pedagogical trends that enhance teaching efficacy. Among the sub-indicators, “Instructional Method Strategies” exhibits the highest standardized beta coefficient ($\beta = 0.427$, $t = 6.733$, $p = 0.000$), indicating its substantial contribution to the overall regression analysis. This finding implies that public secondary school teachers of Cluster 8, Division of Davao City who effectively implement flexible blended learning are more likely to employ diverse and innovative instructional strategies, fostering learner engagement and learning outcomes. Blended learning allows for differentiated instruction, providing students with personalized learning experiences. In the context of Cluster 8, this highlights the necessity for professional development programs that equip

Table 4. Regression Analysis on the Significant Influence of the Implementation of Flexible Blended Learning on the Educational Practices of Public Secondary School Teachers of Cluster 8, Division of Davao City

Implementation of Flexible Blended Learning	β	Std. Error	Beta	t	Sig.	Decision on H_0 / Interpretation
Constant	0.952	0.322		2.958	0.004	Reject / Significant
Planning	0.294	0.060	0.375	4.929	0.000	Reject / Significant
Instructional Method Strategies	0.262	0.039	0.427	6.733	0.000	Reject / Significant
Management	0.121	0.045	0.203	2.674	0.009	Reject / Significant
Assessment & Evaluation	0.102	0.047	0.138	2.186	0.031	Reject / Significant

Note. $R = 0.741$, $R^2 = 0.549$, F-Value = 34.977, p-value = 0.000.

teachers with the skills to integrate technology-driven instructional strategies effectively. The second most influential predictor is 'Planning' ($\beta = 0.375$, $t = 4.929$, $p = 0.000$), which emphasize the critical role of structured lesson planning in maximizing the benefits of flexible blended learning. Effective planning involves the integration of digital tools, asynchronous and synchronous learning activities, and clear learning objectives. A well-structured lesson planning enhances student motivation and self-regulation in blended learning environments. For public secondary school teachers in Cluster 8, Davao City, this suggests a need for comprehensive training in digital lesson planning to ensure that blended learning is seamlessly implemented without compromising instructional quality. "Management" is another significant factor in the regression analysis ($\beta = 0.203$, $t = 2.674$, $p = 0.009$), albeit with a lower impact compared to planning and instructional strategies. Effective management in blended learning encompasses classroom organization, learner engagement across online and offline modalities, and the integration of digital resources. Public secondary school teachers in Cluster 8, Davao City who excel in managing blended learning environments can create cohesive learning experiences that promote collaboration and autonomy among learners. Given the moderate influence of management in this model, school administrators in Cluster 8 should focus on enhancing teachers' classroom management competencies in hybrid settings, ensuring a balance between digital and face-to-face interactions. The final sub-indicator, "Assessment and Evaluation," has the lowest beta coefficient ($\beta = 0.138$, $t = 2.186$, $p = 0.031$), yet remains statistically significant. This suggests that while assessment practices are influenced by flexible blended learning, their impact is less pronounced than other instructional elements. The challenges associated with assessing learner performance in blended settings, such as ensuring academic integrity in online assessments and aligning digital evaluations with learning objectives, have been widely documented. For Cluster 8 teachers, this finding emphasizes the importance of

developing innovative assessment frameworks that leverage digital tools while maintaining the reliability and validity of learner evaluations.

4. Conclusions and Recommendations

This section gives the findings of the study based on the data outcome. The conclusions drawn from the findings of the study are also provided in this section. In order to make a significant contribution, the researcher has made recommendations in this chapter.

4.1. Findings—This non-experimental, correlational study aimed to determine the extent of flexible blended learning implementation and educational practices among public secondary school teachers in Cluster VIII, Division of Davao City. Specifically, it assessed flexible blended learning in terms of planning, instructional methods, management, and assessment and evaluation, alongside educational practices focused on organization and structure, teaching and learning, learners and teachers, and assessment. A modified teacher-made survey questionnaire, based on Blended Learning Theory (Graham, 2006, as cited in Albinda, 2021) and Dewey's Theory of Experience (1934, as cited in Albinda, 2021), was used as the main instrument. Findings revealed that both the implementation of flexible blended learning and educational practices were extensive. Data analysis showed a strong positive relationship between the two variables, with a correlation coefficient r -value of 0.716 and a p -value of 0.000, indicating that effective implementation of flexible blended learning significantly enhances educational practices. Furthermore, planning, instructional strategies, management, and assessment and evaluation were found to significantly influence the educational practices of public secondary school teachers.

4.2. Conclusions—Based on the findings of this study, the following conclusions were offered: The implementation of flexible blended learning of public secondary school teachers were extensive. The educational practices of

public secondary school teachers were also extensive. There was a strong positive relationship between implementation of flexible blended learning and educational practices of public secondary school teachers of Cluster 8, Division of Davao City based on the indicators. Based on the results revealed, the following indicators have a strong influence of implementation of flexible blended learning on the educational practices of public secondary school teachers: Planning, Instructional and Strategies, Management, and Assessment and Evaluation.

4.3. Recommendations—The following interventions were offered based on the conclusions of the study: The Department of Education needs to set out clear policies that are in line with the national agenda and cater to teacher and learner requirements. Proper funding must fund digital infrastructure, technology, and internet access, particularly in rural areas. School heads must develop school-based FBL policies tailored to local needs and resources. They should provide instructional leadership to support teachers and foster innovation and collaboration. Teachers should use effective strategies by combining synchronous and asynchronous methods to meet diverse learning needs in flexible blended learning. Learners must develop digital skills for blended learning. Schools should provide training on time management, online etiquette, and cybersecurity. Future researchers should study the long-term effects of FBL on learner performance, teacher workload, and education quality to improve its effectiveness.

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