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RESEARCH ARTICLE

CHALLENGES, OPPORTUNITIES, ATTITUDE, AND IMPLEMENTATION OF BLENDED LEARNINGIN BASIC EDUCATION IN THE NEW NORMAL

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Abstract

This study was conducted in Baungon Districts 1 and 2 and Talakag District 1. The study utilized correlational and causal research designs. A total of 295 teachers selected at random served as participants. The statistical tools used in the data analyses were frequency and percentage for the demographic profile, the mean and standard deviation to determine the challenges, opportunities, attitudes, and level of implementation of the blended learning modality. Pearson correlation coefficient was utilized to find out the relationship between the independent and dependent variables. Multiple Regression Analysis was used to establish which of the independent variable/s singly or in combination influenced the level of implementation. The teaching profession is dominated by female teachers. Technological, instructional, collaboration and assessment and evaluation are significant challenges. Pedagogical principles, flexibility, creativity, time management, and collaboration are substantial opportunities. A high positive attitude of teachers and highly implemented blended learning are in place. The blended learning modality is influenced by sex, teaching experience, technical, collaboration, assessment and evaluation, pedagogical principles, creativity, and attitude.

Introduction:-

The present COVID 19 pandemic has brought numerous challenges and has affected every sector of society. One of the most affected is the educational sector, and no one knows when it will end. Every country is presently implementing plans and measures on how to contain the virus. However, in the Philippines, cases of virus infection keep on rising. In the educational context, to sustain and provide for the educational needs of the students in the new normal some educational innovations and policies are formulated by the Department of Education (DepEd).

One of the modalities to deliver the educational needs of the students in blended learning. According to Secretary Briones (2020), such a form of education is already offered in some schools and universities all over the world. Blended learning or hybrid learning from the standpoint of DepEd is a fusion of distant online learning and in-person delivery of printed materials to the learners' homes through the barangays for those who do not have internet access and interactive facilities comfort of their homes. In localities where this is not possible, the department will

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use television and radio-based instructions. Radios and televisions across the country will be used to broadcast lessons, materials, and education to those who do not have access to a computer or the internet (Uy, 2020).

Despite these measures lot of stakeholders of the department, especially the parents and teachers, have some concerns and issues about the modalities to deliver instruction to the students in this new normal. In the article written by Uy (2020), among the possible challenges that teachers may encounter include having to grapple with an increased cognitive load, especially for teachers who are not so acquainted with blended learning. Teachers who are not as adjusted and familiar with the dynamics of technology must upgrade their aptitude and literacy quickly. This could be more challenging for these teachers than their students. Teachers must acquire a certain IT competency and proficiency needed for distant online learning to work effectively. Otherwise, this will become a barrier that may hinder the success and effectiveness of online learning.

In the context of Talakag and Baungon school districts, blended learning is currently practiced by the teachers with a combination of modular distance learning, limited online learning, and home visitation. However, there are schools where a limited connection is a significant issue in conducting online sessions. Hence, the researcher is motivated to conduct this investigation to determine the challenges and opportunities in implementing blended learning in the Department of Education (DepEd). Hence, this study is conceived.

Framework

This study was anchored on both the theoretical framework of social constructivism and active learning as proposed by Vygotsky (1978) and the change theory proposed by Kotter (2012). These theories complimented the idea of student-centered learning models that were key to blended learning. Blended learning allowed more engaged students to be active learners (Brown, Ernst, Clark, DeLuca & Kelly, 2017). It also encouraged social constructivism with differentiated learning and collaborative learning environments due to technological advances (Brown, et al., 2017).In addition to social constructivism, Kotter developed a step-by-step change theory framework to understand and evaluate the change process that any institution could go through to implement a new initiative like blended learning (Spencer & Winn, 2004).

Moreover, the technology acceptance model (TAM) Fiel (2020) cited from the work of Davis (1989), stated that behavioral intention drives, individual behavior where the behavioral intention is a function of an individual's attitude toward the behavior and subjective norms surrounding the performance of the behavior. In other words, TRA states that one's behavior and the intent to behave is a function of one's attitude toward the behavior and their perceptions about it. Fiel (2020) further stressed, that to understand the user's behavior towards innovation, one must learn the technology adaption process. The technology acceptance model (TAM) consists of two beliefs, perceived utilities, and perceived ease of application, which determine attitudes toward the adoption of new technology. The TAM proposes two specific ideas, perceived ease of use (PEOU) and perceived usefulness (PU) that determine one's behavioral intention to use technology. Perceived ease of consideration is to influence perceived usefulness. Perceived usefulness refers to the degree to which the user believes that using the technology will improve user work performance, while perceived ease of use refers to how effortlessly the user perceives utilizing the technology.

In this study, variables are categorized into independent and dependent. The independent variables include the demographic, work-related profile, and general internet patterns of the teachers, challenges, opportunities, and attitudes towards blended learning modality. On the other hand, the dependent variable is the level of implementation of the blended learning modality.

Statement Of The Problem

1. What is the demographic profile of the teachers in terms of:
1.1 sex;
1.2 age;
1.3 educational qualifications;
1.4 teaching experience;
1.5 perceived computer literacy; and
1.6 stability of internet connection?

2. To what extent are the challenges encountered by the teachers in implementing blended learning in terms of:
2.1 technological;

2.2 instructional;
2.3 collaboration; and
2.4 assessment and evaluation?
3. What is the level of opportunities in implementing blended learning in terms of:
3.1 pedagogical principles;
3.2 flexibility;
3.3 creativity;
3.4 time management; and
3.5 collaboration?
4. What is the level of attitude of the teachers towards blended learning?
5. What is the level of implementation of blended learning?
6. Is there a significant relationship between the level of implementation of blended learning and the demographic profile of the teachers, challenges encountered, opportunities, and attitudes toward blended learning?
7. Which independent variable/s, singly or in combination, influence the level of implementation of blended learning?

Methodology:-

Research Setting

This study was conducted in school districts 1 and 2 of Lingating, Baungon, and Talakag District 1 Talakag, Bukidnon. Only District I of Talakag has been included; hence the schools are just adjacent to the schools of Lingating Districts 1 and 2. The municipalities of Baungon and Talakag are in the northwest part of the province of Bukidnon. Talakag is a first-class municipality in the province of Bukidnon, while Baungon is a second-class municipality. The two districts of Bukidnon were chosen as the setting; hence the elementary schools in this district implemented blended or hybrid learning as their mode of instructional delivery. More so, the location of the schools also experienced challenges in the distribution of the learning materials as well as technology and connectivity issues; hence, some of the schools are in far-flung barangays.

Research Design

The study utilized descriptive correlational and causal designs. A correlational study is a type of research design where a researcher seeks to understand the relationships naturally occurring variables have with one another. In simple terms, correlational research aims to determine if two or more variables are related and, if so, in what way Creswell (2014). Likewise, it is a causal design; hence it will try to find out which of the independent variable/s singly or in combination influence the implementation of blended learning. A causal design is a research design that seeks to find relationships between independent and dependent variables after an action or event has already occurred. The researcher's goal is to determine whether the independent variable affected the outcome, or the dependent variable (Salkind, 2012).

Participants

The study participants were the elementary teachers of Districts 1 and 2 of Lingating, Baungon, and District 1 of Talakag in the school's division of Bukidnon. The researcher made use of stratified sampling in selecting the participants. In a stratified sample, researchers divide a population into homogeneous subpopulations called strata based on specific characteristics. Every member of the population studied should be in exactly one stratum. Each stratum is then sampled using another probability sampling method, such as cluster or simple random sampling, allowing researchers to estimate statistical measures for each sub-population (Thomas, 2020). Slovin's formula was used to determine the sample size

Distribution of the Participants

Schools	Population	Sample	Percentage
Lingating District I	65	55	18.64
Lingating District II	97	78	26.44
Talakag District I	273	162	54.92
Total	**435**	**295**	**100.0**

Research Instrument
To meet the goals of this study, a questionnaire checklist was employed as the data-gathering device. The first part of the questionnaire tried to ascertain the demographic and work-related profile and general internet patterns among the teacher-participants. The second part of the questionnaire sought to determine the challenges encountered in implementing the blended learning modality. The questionnaires for challenges and opportunities were researcher-made. The items were taken from the literature and studies reviewed. The third part sought to find out the opportunities for implementing blended learning. Part IV of the questionnaire attempted to determine the teachers' attitudes toward blended learning adapted from the work of Obaidat (2016). Part V tried to ascertain the level of implementation of blended learning. The items were taken from the work (Testerman, 2019 &Cabardo, 2016).

Validity and Reliability of the Instruments
Before the questionnaires were tried out, they were shown to three experts to determine the content validity. The comments and suggestions of the experts were incorporated into the final draft of the questionnaires and were tried out on thirty (30) participants who were not included as participants of the study. The generated data from the tryout was submitted to a statistician for reliability test and item analysis. The Cronbach's Alpha for the Challenges was 0.89; Opportunities was 0.98, and Attitude and Implementation were 0.93; hence the questionnaire is reliable. However, from the item analysis of the 168 items, 24 items were deleted because the corrected item-total correlation was below 0.30.

Data Gathering Procedure
To guarantee the quality and reliability of research findings, the researchers observed the following data gathering procedures:

The researcher sought approval from the adviser after a careful assessment and review of the manuscript for the thesis. The Dean of the College approved the schedule for the defense of the proposal after a thorough examination of the final manuscript. After the proposal defense, the researchers accomplished the Research Ethics Application Form they were submitted to the office of the Vice President for Research, Planning, Extension, and Innovation with the approved research proposal. The Director of the Research Ethics Board (REB) reviewed the proposal and Research Ethics Form for completeness and compliance with the University format and guidelines. After the clearance was issued by the REB, the researcher made a letter addressed to the Dean of the School of Teacher Education asking permission to conduct the study. Upon approval, another note was addressed to the Schools Division Superintendent of the Division of Bukidnon asking for authorization to administer the questionnaire to the elementary school teachers. Upon approval, the researcher approached the school administrators of the different schools and explain the items in the questionnaires and the purpose of the study. In like manner, the possible benefits and risks of the study were likewise explained to them. After the approval of the principals, the researcher personally approached the target participants and explained the purpose, risks, and benefits of the study. Likewise, they were assured that utmost confidentiality is observed strictly, and the data was used solely for this study. Moreover, it was also emphasized that they were free to refuse and discontinue their participation in the research and had the option to refuse to answer any item in the questionnaire. The participants were given enough time (10-15 minutes) for them to answer, after which the answered questionnaires were personally retrieved by the researcher with their signature on the informed consent. The retrieved questionnaires were submitted to a statistician for data processing.

Statistical Techniques
The statistical tools used in the data analyses were the frequency and percentage distribution for problem 1, mean and standard deviation for problems 2,3, 4, and 5, and Pearson Product–Moment Correlation coefficient was utilized in problem 6 to find out the relationship between the independent and dependent variables. Multiple Regression was employed for problem 7 to identify which of the independent variable/s, singly or in combination, influenced the dependent variable.

Results And Discussion:-
The findings of the study are presented based on the problem statement of the study.

Problem 1. What is the demographic profile of the teachers in terms: of sex, age, educational qualifications, teaching experience, perceived computer literacy, and internet connection stability?

Table 1:- Demographic Profile of the Teacher-Participants.

Indicators	Frequency	Percentage
Sex		
Female	264	89.5
Male	31	10.5
Total	295	100
Age		
Below 25 years	6	2.0
26-35	69	23.4
36-45	111	37.6
46-55	86	29.2
55 up	23	7.8
Total	295	100
Educational Qualification		
Bachelor's Degree	84	28.5
BS w/ MA Units	172	58.3
Full-fledged Master	31	10.5
MA w/ Post Graduate Units	8	2.7
Total	295	100
Teaching Experience		
Below 5 years	25	8.5
6-15 years	143	48.5
16-25 years	60	20.3
25-35 years	67	22.7
Total	295	100
Perceived Computer Literacy		
Expert	39	13.2
Intermediate	182	61.7
Beginner	74	25.1
Total	295	100
Stability of Internet Connection		
Very Stable	28	9.5
Somewhat Stable	168	56.9
Not Stable	99	33.6
Total	**295**	**100**

Table 1 shows the demographic profile of the teacher-participants. In terms of sex, the majority, 264 or 89.5 percent of the teachers, are females, and only 31 of 10.5 percent are males. Regarding age, the majority, 111 or 37.6 percent, are within the age bracket of 36-45. This is followed by the age category 46-55, with a frequency of 86 or 29.2 percent. The age category of 26-35 got a frequency of 69, equivalent to 23.4 percent. Teachers with the age bracket 55 up obtained a frequency of 23 or 7.8 percent. The age category 25 years below got a frequency of 6 or 2.0 percent. The table also presents the educational qualifications of the teachers. The majority, 172 or 58.3 percent are bachelor's degree holders with Masteral units. This is followed by bachelor's degrees with a frequency of 84 or 28.5 percent. Thirty-one of them are full-fledged master's, and only 8 or 2.7 percent are master's degrees with post-graduate units.

It is also revealed in the table the teaching experience of the teachers. The majority have been in the teaching profession between 6-15 years with a frequency of 143 or 48.5 percent. This is followed by the teachers with teaching experience between 25-35 years with a frequency of 67 or 22.7 percent, comes next are the teachers with experience between 25-35 years of experience. Only 24 or 13.2 percent have a teaching experience of below five years. The table also depicts the perceived computer literacy of the teachers. It can be discerned from the table that the majority, 182 or 61.70 percent are intermediate computer literacy. This is followed by the beginner with a frequency of 74 or 25.1 percent. Only 39 or 13.2 percent are experts in terms of computer literacy. Lastly, the table

also shows the strength of the internet connection of the teachers. It can be observed that the majority, 168 or 56.9 percent of the teachers, have some interference in connecting to the internet which is described as somewhat stable. Ninety-nine or 33.6 percent of the teachers have an unstable connection, and 28 or 9.5 percent have a very stable connection. The data in table 1 suggest that the teaching profession is dominated by females. This is supported by the Academic rigor, and journalistic flair of The Conversation (2019), which states that women are considerably over-represented in the teaching profession. Recent data show that among recent Australian university graduates, 97% of pre-primary teachers, 85% of primary teachers, and 68% of secondary teachers are female. Similarly, large proportions of women in teaching are also observed across the OECD.

Problem 2. To what extent are the challenges encountered by the teachers in implementing blended learning in terms of technological, instructional, collaboration, and assessment and evaluation.

Table 2:-Technological Challenges Encountered by the Teachers in Implementing Blended Learning.

Statements	**Mean**	**Standard Deviation**	**Interpretation**
1. Having difficulty with more sophisticated technologies (creating a website or a Facebook page)	3.86	0.91	To a great extent
2.Technical issues such as provision of educational materials and technology equipment	3.66	0.70	To a great extent
3. Lack of technical support such availability of technology expert to trouble shoots the equipment	3.60	0.99	To a great extent
4. Lack of coordination between ICT experts and faculty offering blended learning	3.40	1.05	To a moderate extent
5. Lack of technical maintenance of the system	3.79	0.88	To a great extent
6. Difficulty in uploading documents and forum posts	3.66	0.87	To a great extent
7. Lack of support concerning logistics including technical support	3.64	0.96	To a great extent
8. Inclement weather that compromise the Internet connections	3.88	0.78	To a great extent
9. Institutional initiatives to equip the teachers with appropriate and relevant technology skills	3.80	0.61	To a great extent
10.Lack of proper gadgets for teachers and/or learners	4.20	0.75	To a great extent
11. Slow response of internet service providers	4.08	0.76	To a great extent
12. Difficulty in producing the materials if the equipment and hardware used malfunction	4.10	0.76	To a great extent
Overall Mean	**3.87**	**0.38**	**To a great extent**

The data in table 2 reveal the technological challenges encountered by elementary school teachers in the implementation of the blended learning modality. It can be deduced from the table that the teachers experienced to a great extent the technological challenge in their implementation of the blended learning modality as disclosed by the overall mean value (M= 3.87) with a standard deviation (SD=0.38) described as a great extent. The highest mean (M=4.20) with a standard deviation (SD=0.75) described to a great extent is obtained by the indicator, "Lack of proper gadgets for teachers and/or learners", next to follow are indicators "Difficulty in producing the materials if the equipment and hardware used malfunction", and "Slow response of internet service providers" with mean ratings of (M=4.10) and (M=4.08) both interpreted as to a great extent. On the other hand, the indicator "Lack of coordination between ICT experts and faculty offering blended learning" got the lowest mean (M=3.40) and a standard deviation (SD=1.05) characterized a moderate extent.

The findings imply that technological problemswere the most encountered by them in implementing blended learning. This is supported by the results of the study conducted by Dotong, De Castro, Dolot, and Prenda (2016) illustrated some limitations of ICT integration like shortage of ICT facilities, poor maintenance of available or existing ICT resources, and lack of ICT budget. Moreover, Eleman (2016) pointed out some barriers to the

implementation of the blended learning approach, such as lack of financial support, insufficient existence of technology devices, and low internet connectivity.

Table 3:- Instructional Challenges Encountered by the Teachers in Implementing Blended Learning.

Statements	Mean	Standard Deviation	Interpretation
1. Lack of interaction with the pupils	3.62	0.82	To a great extent
2. Finding the right blend: deciding how much time to spend in online and face-to-face discussions etc.	3.53	0.79	To a great extent
3. Unrealistic expectations of the pupils about blended learning	3.58	0.90	To a great extent
4. Pupils have a feeling of isolation due to the reduced opportunities for social interaction	3.65	0.79	To a great extent
5. Planning and developing a blended learning is time consuming	3.65	0.79	To a great extent
6. Blended learning is more time-consuming than time-bound classroom discussions	3.76	1.0	To a great extent
7. Redesigning classroom activities to accommodate the virtual platform	4.02	0.66	To a great extent
8. Redeveloping course learning objectives and assignments	3.83	0.61	To a great extent
9. Issues with time management	3.71	0.78	To a great extent
10. Being skeptical about the new approach	3.54	0.82	To a great extent
Overall Mean	**3.68**	**0.53**	**To a great extent**

The data in Table 3 reflect the instructional challenges met by the teachers in implementing blended learning. The teachers experienced this challenge to a great extent, as revealed by the overall mean (M=3.68 and) a standard deviation (SD=0.53) described as to a great extent. The highest mean rating (M=4.02) with a standard deviation (SD=0.66) is acquired by the indicator "7. Redesigning classroom activities to accommodate the virtual platform", this is closely followed by items " Redeveloping course learning objectives and assignments" and "Issues with time management" with mean ratings (M=3.83) and (M=3.71) respectively both described as to a great extent. On the contrary, the lowest mean rating (M=3.53) with a standard deviation (SD=0.79) is on the indicator "Finding the right blend: deciding how much time to spend in online and face-to-face discussions and the likes" is still described as a great extent.

The data suggest that the teachers find this area very challenging in implementing the blended learning modality. More so, they find hardship in what type of virtual learning or activity fits with the pupils. The findings are supported by the study conducted by O'Connor, et al. (2011). Moreover, (Albiladi&Alshareef, 2019) pointed out that not all faculty members are inclined toward blended-based education. Some still consider the use of ICT as time-consuming, so preparations for the lecture or teaching materials design and development on web-based platforms require more time than face-to-face interaction.

Table 4:- Challenges Encountered by Teachers in Implementing Blended Learning in Terms of Collaboration.

Statements	Mean	Standard Deviation	Interpretation
1. Funds are insufficient for the development of a Learning Management System to enhance blended learning	3.97	0.70	To a great extent
2. Lack of institutional support	3.86	0.78	To a great extent
3. Blended learning requires high level of student discipline and responsiveness	3.99	0.85	To a great extent
4. Blended learning reduces contact with students	3.82	0.91	To a great extent

5. Limited to lack of interaction between teacher-student and student-student	3.92	0.79	To a great extent
6. Difficulty in communicating with the pupil's parents.	3.93	0.77	To a great extent
7. Difficulty in giving feedback of pupil's performance to concerned parents due to limited time	3.98	0.78	To a great extent
8. Limited support from the administration	3.63	0.83	To a great extent
9. Limited time in exchanging of information from the student and facilitator	3.74	0.80	To a great extent
10. Lack of feedback of learner interactions resulting to learning failure and class withdrawal	3.66	0.85	To a great extent
Overall Mean	**3.85**	**0.57**	**To a great extent**

Table 4 reveals the means and standard deviations of the challenges encountered by the teachers in implementing the blended learning modality in terms of collaboration. The faculty find this dimension very challenging, as evidenced by the overall mean (M=3.85), and a standard deviation (SD=0.57) verbally described to a great extent. All the ten indicators obtained a verbal interpretation to a great extent. The highest mean rating (M=3.99) with a standard deviation (SD=0.85) is attributed to the indicator "Blended learning requires a high level of student discipline and responsiveness." Indicators "Difficulty in giving feedback of pupil's performance to concerned parents due to limited time" and "Difficulty in communicating with pupil's parents" closely followed with mean ratings (M=3.98) and (M=3.93), respectively both interpreted to a great extent. The data indicate that blended learning entails good disciplined and responsible learners, which the teachers find hard to establish during this pandemic.

Moreover, the problem of poor internet connection is giving so much trouble to adapt to online education even before the pandemic begins fully. Aside from that, it is undoubtedly unsuccessful in making education affordable. The Philippines ranked 66th out of 85 countries in the 2020 Digital Quality of Life Index with issues concerning expensive, low quality of service and internet connection along with the need to upgrade the telecommunication's electronic infrastructure Toquero (2020).Furthermore, Alvarez (2020), in his study, pointed out that collaboration or limited lack of interaction between teacher-student and student-student due to poor utilization of technology-enabled communication tools was one of the challenges in blended learning. He further stressed that there is a limited time for exchanging of information between the student and facilitator because it is a blended learning activity.

Table 5:- Challenges Encountered in Terms of Assessment and Evaluation.

Statements	**Mean**	**Standard Deviation**	**Interpretation**
1. Integrity of assessment and evaluation results	3.91	0.50	To a great extent
2. Difficulty in conducting formative evaluation and continuous internal assessment	3.83	0.71	To a great extent
3. Summative evaluation is not supported in the blended learning	3.42	0.92	To a moderate extent
4. Incorporating existing evaluation resources into Blended Learning Toolkit	3.70	0.73	To a great extent
5. Difficulty in monitoring and tracking of student performance	3.75	0.83	To a great extent
6. Limited time to discuss, reflect, learn, and assess	3.79	0.83	To a great extent
7. Inadequate forms of assessment tools	3.66	0.77	To a great extent
8. Difficulty in giving feedback on the results of assessment	3.81	0.75	To a great extent
9. Difficulty in evaluating assessing pupils' affective outcomes	3.81	0.71	To a great extent
10. Limited time to discuss with the parents relative to their child's academic performance	3.97	0.64	To a great extent
Overall Mean	**3.76**	**0.55**	To a great extent

Table 5 depicts the challenges encountered by teachers in implementing the blended learning modality in terms of assessment and evaluation. It can be deduced from the table that the teachers considered this challenge to a great extent, as indicated by the overall mean (M=3.76) with a standard deviation (SD=0.55) verbally described to a greatextent. The highest mean rating is obtained by the indicator "Limited time to discuss with the parents relative to their child's academic performance", with a mean rating (M=3.97) interpreted as to a great extent with a standard deviation (SD=0.64). The indicators ". Integrity of assessment and evaluation results" and "Difficulty in conducting formative evaluation and continuous internal assessment" were followed by mean ratings (M=3.91) with a standard deviation (SD=0.50) and (SD=3.83), respectively. On the other hand, the indicator "Summative evaluation is not supported in the blended learning" with a mean rating (M=3.42) and a standard deviation (SD=0.92) interpreted as to a moderate extent.

The findings indicate that the teachers have a limited time to give feedback to parents on the performance of the kids. This can be attributed to the fact that during this study, there was a surge of cases of infections of the CoronaVirus. In like manner, during the rise of cases, there was limited mobility among individuals, most especially since social distancing was strictly observed. The Illinois Department of Health (2020) emphasized that schools are an essential part of the infrastructure of communities, as they provide safe, supportive learning environments for students, employ teachers and other staff, and enable parents, guardians, and caregivers to go to work. Schools also provide critical services that help to mitigate health disparities, such as school meal programs, and social, physical, behavioral, and mental health services.

Problem 3. To what degree are the opportunities in implementing blended learning in terms of pedagogical principles, flexibility, creativity, time management, and collaboration?

Table 6:- Opportunities of Blended Learning in Terms of Pedagogical Principles.

Statements	**Mean**	**Standard Deviation**	**Interpretation**
1. Blended learning contributes to improve learning outcomes.	3.81	0.75	Strong Opportunity
2. Blended learning can offer transformational potentials.	3.72	0.75	Strong Opportunity
3. Blended learning also promotes student interest, perceptions, and satisfaction of the learning environment.	3.68	0.87	Strong Opportunity
4. Communication cycle is completed in blended learning which is not possible in the traditional approach	3.40	1.03	Moderate Opportunity
5. Blended learning shifts responsibility for learning from the teacher to the students	3.69	0.64	Strong Opportunity
6. Greater student engagement and motivation for completing tasks are observed	3.63	0.88	Strong Opportunity
7. Students began to control the construction of knowledge as there is less dependence on traditional instruction; more self-driven tasks were allocated	3.59	0.84	Strong Opportunity
8. Improved Pedagogy, Teacher Skills, and Confidence	3.69	0.80	Strong Opportunity
9. Possibility to adapt and adopt various pedagogical theories and principles	3.73	0.78	Strong Opportunity
10. Blended learning develops student's responsibility for their own learning	3.62	0.89	Strong Opportunity
Overall Mean	**3.66**	**0.65**	**Strong Opportunity**

Table 6 portrays the opportunities for blended learning in terms of pedagogical principles. The teachers consider this a vital opportunity, as disclosed by the overall mean (M=3.66) and a standard deviation (SD=0.65). The indicator "Blended learning contributes to improving learning outcomes" got the highest mean (M=3.81) and a standard deviation (SD=0.75). This is closely followed by the indicators "Possibility to adapt and adopt various pedagogical

theories and principles" and "Blended learning can offer transformational potentials", closely followed by mean ratings (M=3.73) and (M=3.74) and standard deviations (SD=0.78) and (SD=0.75) respectively. The data suggest that the teachers considered that blended learning contributes to enhancing learning results or outcomes due to the various approaches and methodologies employed by the teachers in implementing this learning modality.

Studies have shown that courses using the blended learning delivery method contribute to improving learning outcomes for the students (Boyle, Brandley, Chalk, Jones & Picard, 2013; Groen and Carmody, 2012; Iozzi&Osimio, 2012). Twisg (2014) reported that courses redesigned to include blended learning resulted in students achieving higher grades, more excellent knowledge, and an understanding of course concepts. This could lead to a reduction in the student dropout rate in higher institutions as cited in the work of Akpan (2015).

Additionally, the findings support the study conducted by Bright (2015) that many teachers find their overall efficiency improves in a blended learning classroom. After setting up their lessons correctly, they can have students watch the lecture and read any necessary assignments on their own time, making room for discussions during class. This gives them optimal time to reinforce the material. By incorporating technology into classroom instruction, teachers are freed up to reach more students. Teachers can move within the stations or activities to interact with an individual or small group of students and check on progress. Data provided by educational technology programs also empowers teachers with insights into each student's learning so they can more effectively address gaps (Walker, 2018).

Table 7:- Opportunities of Blended Learning in Terms of Flexibility.

Statements	**Mean**	**Standard Deviation**	**Interpretation**
1. Blended learning increases flexibility of access to learning.	3.73	0.67	Strong Opportunity
2. Blended learning facilitates review and learners' control of the learning environment.	3.62	0.72	Strong Opportunity
3. Blended learning provides more choice of learning to learners.	3.74	0.75	Strong Opportunity
4. Blended learning increases learning resources.	3.76	0.70	Strong Opportunity
5. Blended learning brings learning, information, and support to where the work gets done.	3.65	0.90	Strong Opportunity
6. Blended learning helps students consider their readiness to learn continuously and independently.	3.65	0.77	Strong Opportunity
7. Designing blended tasks can accommodate different learning styles and purposes.	3.58	0.81	Strong Opportunity
8.Blended learning accommodates different types of students.	3.78	0.76	Strong Opportunity
9. Students have control over the pacing of their learning; difficult concepts can be reviewed as often as necessary.	3.53	0.70	Strong Opportunity
10. Students learn at their own pace, timing, and effort in blended learning.	3.62	0.81	Strong Opportunity
11. Blended learning allows access to a wide variety of learning materials.	3.54	0.86	Strong Opportunity
12. In blended learning there is availability of various tools, methods and learning theories.	3.63	0.78	Strong Opportunity
13. Blended learning increases teachers' and students' flexibility.	3.65	0.80	Strong Opportunity
14. In blended learning there is access to course materials regardless of time and space.	3.62	0.80	Strong Opportunity
Overall Mean	**3.65**	**0.61**	**Strong Opportunity**

The data in Table 7 displays the means and verbal interpretation of the opportunities perceived by the elementary school teachers in terms of flexibility. The teachers perceived this as an ample opportunity, as disclosed by the overall (M=3.65) and an (SD=0.61) verbally described as a substantial opportunity. In addition, all the fourteen indicators have a verbal description of the strong possibility. The highest mean rating (M=3.78) is on hand "Blended learning accommodates different types of students." The indicators "Blended learning provides more choice of learning to learners" and "Blended learning increases the flexibility of access to learning" with mean ratings (M=3.74) and (M=3.73) closely followed.

The data also indicate that the teachers find this construct very beneficial in implementing the blending learning during this pandemic. This is in accord with (TeachThought, 2021), which states that blended learning offers flexibility in terms of availability. In other words, blended learning enables the student to access the materials from anywhere at any time while enjoying the benefits of face-to-face support and instruction – access to global resources and materials that meet the students' level of knowledge and interest. Self-pacing for slow or quick learners reduces stress and increases satisfaction and information retention. Likewise, Tucker, Wycoff & Green (2017), give details on the advantages of utilizing blended learning models, for instance, flexible learning. One advantage is that teachers can make activities based on student needs since it allows for personalized learning. The students can explore their classroom at their own pace and time, not minding the place they are in.

Table 8:- Opportunities of Blended Learning in Terms of Creativity.

Statements	**Mean**	**Standard Deviation**	**Interpretation**
1. Encourages independence and conviviality.	3.88	0.60	Strong Opportunity
2. Creates free time for more interactive exercises during class time.	3.65	0.79	Strong Opportunity
3. Increases students' engagement.	3.71	0.82	Strong Opportunity
4. Increases students' empowerment.	3.62	0.84	Strong Opportunity
5. Gives provisions for students' critical and creative thinking.	3.73	0.78	Strong Opportunity
6. Fosters independent habits for learning and reference.	3.57	0.74	Strong Opportunity
7. Engages students in more reflective and self-monitoring tasks that enhance their understanding.	3.67	0.83	Strong Opportunity
8. Increases usage of tools, methods and models that foster creativity.	3.72	0.81	Strong Opportunity
9. Molds students to become independent with their own learning.	3.75	0.80	Strong Opportunity
10. Allows teachers to do household chores at the same time designing learning activities.	3.49	0.92	Moderate Opportunity
11. Accords students to become self-driven and responsible.	3.65	0.81	Strong Opportunity
12. Allows students to track their individual achievements.	3.54	0.82	Strong Opportunity
13. Develops students' ability to find the resources or get the help they need so they can reach their goals.	3.68	0.86	Strong Opportunity
Overall Mean	**3.67**	**0.64**	**Strong Opportunity**

Table 8 shows the means and verbal descriptions of the opportunities perceived by the elementary school teachers in terms of creativity. The data in the table reveal that the teachers regarded this as a vital opportunity, as indicated by the overall mean (M=3.67) and (SD=0.64). The finding implies that the teacher and pupils become more creative in the blended learning approach. The highest mean ratings are attributed to the indicators " Encourages independence and conviviality", "Molds students to become independent with their learning", and "Gives provisions for students' critical and creative thinking" with mean ratings (M=3.88), (M=3.75), and (M=3.73) respectively.The data further suggest that in blended learning, the learners become more independent and creative thinkers. According to Ann Med Health Sci Res (2014), in a blended learning approach, the students learned some of the material independently.

Table 9:- Opportunities of Blended Learning in Terms of Time Management.

Statements	Mean	Standard Deviation	Interpretation
1. Adjustability and the freedom to learn anytime, anywhere.	3.85	0.78	Strong Opportunity
2. Blended learning gives students access to class materials at any time.	3.71	0.76	Strong Opportunity
3. Blended learning makes better use of class time.	3.44	0.85	Moderate Opportunity
4. The use of blended-based instruction allows more time, engagement, and increases students' participation.	3.55	0.75	Strong Opportunity
5. Students can study at their own pace with blended learning.	3.73	0.67	Strong Opportunity
6. Learning the contents is easier for the students in blended learning.	3.53	0.87	Strong Opportunity
7. Blended learning improves time efficiency.	3.56	0.79	Strong Opportunity
8. Teachers can engage in different commitments while designing the blended activities.	3.72	0.8	Strong Opportunity
9. Students can access the documents fast and save valuable time.	3.45	0.88	Moderate Opportunity
10. Blended learning provides ease to teachers' work.	3.49	0.98	Moderate Opportunity
11. Blended learning helps speed up the learning process or give more advanced resources if necessary.	3.60	0.69	Strong Opportunity
Overall Mean	**3.67**	**0.64**	**Strong Opportunity**

Table 9 presents the means and verbal interpretation of the perceived opportunities of teachers in terms of time management. It can be discerned from the table that the elementary school teachers regarded this as a substantial opportunity, as depicted in the overall mean (M=3.67) and a standard deviation (SD=0.64). The data further indicate that the teacher-participants considered this construct under opportunities as very advantageous to them and the learners. The table also reveals that out of eleven indicators eight are rated by the teachers as a strong opportunity. Only three are rated by the teachers as a moderate opportunity. The highest mean ratings are obtained by indicators "Adjustability and the freedom to learn anytime and anywhere", "Students can study at their own pace with blended learning", and "Teachers can engage in different commitments while designing the blended activities" with mean ratings of (M=3.85),(M= 3.73), and (M=3.72) respectively.

The findings collaborate with (Hande, 2014), stressing that in blended learning, students learn some of the material independently which helps them to apply the learning in a more facilitated learning environment. This implies that in blended learning, the learners can access the learning materials anytime at their most convenient time. In like manner, Tucker, Wycoff & Green (2017), give details on the advantages of utilizing blended learning models, for instance, flexible learning. One advantage is that teachers can make activities based on student needs since it allows for personalized learning. The students can explore their classroom at their own pace and time, not minding the place they are in. Another is it offers more engaged learning by utilizing technology. However, teachers must put in mind to provide creativity, exciting topics, engaging worksheets, or quizzes to encourage learning which underscores higher order thinking questions (Umprey, 2013).

Table 10:- Opportunities of Blended Learning in Terms of Collaboration.

Statements	Mean	Standard Deviation	Interpretation
1. Online communities can expose participants to the skills, knowledge, and culture of their classmates.	3.67	0.86	Strong Opportunity
2. Students change their behaviors to become more reflective, collegial, and collaborative.	3.61	0.80	Strong Opportunity
3. Collaboration and peer review become part of the	3.58	0.77	Strong Opportunity

formal assessment.			
4. Blended learning provides better communication for students and instructors	3.36	0.88	Moderate Opportunity
5. Students can gain knowledge and learn from peers by working collaboratively.	3.57	0.84	Strong Opportunity
6. Blended learning increases collaborative and active learning.	3.52	0.87	Strong Opportunity
7. Blended learning gives the students the chance to network with peers from other schools.	3.67	0.79	Strong Opportunity
8. Blended learning allows collaboration with other individuals in designing blended activities.	3.65	0.68	Strong Opportunity
9. Blended learning can easily connect to colleagues and friends if needed.	3.56	0.72	Strong Opportunity
10. Blended learning looks promising and opens education to a larger section of the population than ever before.	3.64	0.68	Strong Opportunity
11. Blended learning allows the teachers to share their expertise.	3.76	0.70	Strong Opportunity
12. In blended learning there is reduced isolation and more opportunities for collaboration.	3.71	0.74	Strong Opportunity
Overall Mean	**3.61**	**0.63**	**Strong Opportunity**

Table 10 presents the means and verbal interpretations of the perceived opportunities of the teacher-participants in terms of collaboration. The overall mean rating of the twelve statements (M=3.61) with a standard deviation (SD=0.63) is interpreted as a vital opportunity. Rated high by the teachers are the statements "Blended learning allows the teachers to share their expertise, "In blended learning, there is reduced isolation and more opportunities for collaboration", and "Blended learning gives the students a chance to network with peers from other schools" and "Online communities can expose participants to the skills, knowledge, and culture of their classmates" with mean ratings (M=3.76), (M=3.71), and (M=3.67) respectively.

The data indicate that in blended learning, the teachers can impart their expertise it could, technical or instructional, to make the blended learning approach more effective and efficient. This is supported by (Bright, 2015), stressing that in a blended learning classroom, the teachers have the best of both worlds, with both online and offline teamwork opportunities. Moreover, Movchan (2018) pointed out that blended learning fosters better communication and collaborative learning. Even though with a blended learning strategy, a participant can access the resources in the absence of the instructor, it still improves the communication and interaction amongst the participants and with the instructors.

Problem 4. What is the level of attitude of the teachers towards blended learning?

Table 11:- Teachers' Attitude towards Blended Learning.

Statements	**Mean**	**Standard Deviation**	**Interpretation**
1. Blended Teaching creates a computer culture among students.	3.71	0.79	Highly Positive
2. It helps provide an atmosphere of cooperation among students.	3.53	0.90	Highly Positive
3. It develops positive attitudes among the learners.	3.43	0.90	Moderately Positive
4. It is characterized by flexibility since it provides activities and alternatives.	3.58	0.80	Highly Positive
5. It increases motivation and breaks students' inactivity.	3.60	0.78	Highly Positive
7. Blended learning considers the individual differences and needs of learners into consideration.	3.56	0.81	Highly Positive
8. It takes the individual differences and needs into	3.58	0.83	Highly Positive

consideration among learners			
9. It shortens the time, effort, and cost to get to scientific knowledge	3.71	0.84	Highly Positive
10. Blended learning reaches out to students in different places and environment.	3.71	0.78	Highly Positive
11. I believe that blended learning maintains the inherent links between the student and the teacher which is the basis of the educational process.	3.64	0.87	Highly Positive
12. I prefer blended teaching since it contributes to the changing of routine in the classroom.	3.33	0.98	Moderately Positive
13. It is suitable for the communities in the developing countries, that still lack technology.	3.57	0.90	Highly Positive
14. I feel that using blended teaching helps me update my information and thoughts continuously.	3.76	0.72	Highly Positive
15. In Blended Teaching, many stimuli arise as well as the student responses to these stimuli.	3.50	0.77	Highly Positive
16. In blended learning students can discuss the idea among themselves and the teacher.	3.37	0.92	Moderately Positive
17. It helps eliminate the burden of carrying the heavy textbooks in the classroom.	3.60	0.84	Highly Positive
18. It increases students' retention of learned materials because blended teaching is learning by doing.	3.34	0.84	Moderately Positive
Overall Mean	**3.56**	**0.65**	Highly Positive

Table 11 reveals the means and verbal interpretation of the teacher participant's attitude toward the blended learning modality. It can be inferred from the table that the elementary school teachers have a high positive attitude toward the blended learning approach, as revealed by the overall mean rating (M=3.56) and (SD=0.65). The highest mean rating among the eighteen indicators are the following "I feel that using blended teaching helps me update my information and thoughts continuously," "Blended Teaching creates a computer culture among students," It shortens the time, effort, and cost to get too scientific knowledge." and "Blended learning reaches out to students in different places and environment" with mean ratings (M=3.76 and (M=3.7)1 respectively. The data entail that the teachers have a positive attitude toward upscaling and updating their knowledge and thoughts towards the blended learning approach.

The finding aligns with the work of Fiel (2020), which states that behavioral intention drives, individual behavior where the behavioral intention is a function of an individual's attitude toward the behavior and subjective norms surrounding the performance of the behavior. In other words, one's behavior and the intent to behave is a function of one's attitude toward the behavior and their perceptions about it. She further stressed, that to understand the user's behavior towards innovation, one must learn the technology adaption process. More so, using new technologies gives teachers the freedom to experiment in their teaching practice and the ability to make changes if something does not work.

The study of Obaidat (2016) also reveals that blended teaching creates a computer culture among students and teachers. Much more, blended learning reaches out to students in different places and environments. According to Uy (2020), blended learning or hybrid learning from the standpoint of DepEd is a fusion of distant online learning and in-person delivery of printed materials to the homes of the learners through the barangays for those who do not have internet access and interactive facilities and comfort of their homes.

Problem 5. What is the level of implementation of blended learning?

Table 12:- Level of Implementation of Blended Learning.

Statements	**Mean**	**Standard Deviation**	**Interpretation**
The school head …			
1. requires us to set individual goals that are related to blended	3.85	0.63	Highly

learning.			Implemented
2. assists us with the development of goals that are related to blended learning.	3.81	0.68	Highly Implemented
3. guides and assigns blended learning professional as part of his/her supervisory function.	3.73	0.81	Highly Implemented
4. evaluates teachers as to effectiveness within a blended learning environment.	3.68	0.77	Highly Implemented
5. participates in the modification or reallocation of learning spaces as part of the blended learning in school.	3.64	0.65	Highly Implemented
6. participates in the modification of teacher and staff schedules as part of the implementation of the blended learning in school/district.	3.72	0.64	Highly Implemented
7. maintains ongoing technology-related professional relationships with colleagues of other schools/districts.	3.75	0.64	Highly Implemented
8. gives support to faculty in making use of the latest technology and instructional techniques.	3.65	0.71	Highly Implemented
9. provides the teachers with orientation and training Programs.	3.61	0.83	Highly Implemented
10 sets support network team to provide pedagogical and technical support.	3.75	0.74	Highly Implemented
11. considers a development and long-term implementation plan to minimize stress of faculty members.	3.65	0.71	Highly Implemented
12. sets up a learning management system that supports the faculty's choice of the placement of learning activities.	3.69	0.70	Highly Implemented
13. sets up technology support group to deal with technological glitches	3.62	0.75	Highly Implemented
The stakeholders help the school by…..			
14. assisting the school community in sourcing out funds for students to be able to participate in academic and non-academic competitions.	3.61	0.81	Highly Implemented
15. volunteering in the different activities related to the health and nutrition of the school children especially during school feeding programs, activities in the nutrition month and the like.	3.66	0.83	Highly Implemented
16. willingly takes part in the schools' maintenance week dubbed as Brigada Eskwela by extending some of the needed resources (financial, material, labor).	3.67	0.74	Highly Implemented
17. help convince civic community-minded members to extend assistance to schools especially during special activities like teachers' month, scouting activities and others.	3.65	0.81	Highly Implemented
18. participates actively in the different activities initiated by the schools especially regarding PTA conferences, general assemblies, and Parents' Day activities.	3.58	0.74	Highly Implemented
19. answers the call of the schools in terms of the urgent activities that needs stakeholders' participation such as the coming of visitors and the conduct of evaluation related to school-based management.	3.53	0.70	Highly Implemented
20. eagerly engages in meaningful volunteer work in our school community (value formation activity, sports competition) that enhances positive interaction among the youth.	3.49	0.75	Highly Implemented
21. participates in school activity directed towards the reduction of illiteracy in schools especially as visiting mentor in the school reading intervention program and the reading recovery program of the school.	3.51	0.72	Highly Implemented
22. assists in the distribution and retrieval of modules, remediation exercises, and enrichment activities prepared by the teachers.	3.54	0.72	Highly Implemented
23. assists in the production or reproduction of learning modules, activity sheets, and other instructional materials.	3.47	0.77	Moderately Implemented

24. helps the teachers in determining the needs for intervention strategies based on their observation and tracking of the learners' progress.	3.49	0.82	Highly Implemented
Overall Mean	**3.64**	**0.56**	**Highly Implemented**

Table 12 displays the mean ratings and verbal interpretation of the teacher participant's assessment of the blended learning implementation during this new normal. It can be noted the blended learning modality is well implemented, as revealed by the overall mean rating (M=3.64) and a standard deviation (SD=0.56) interpreted as highly implemented. Highly rated by the teachers are the indicators "The school head requires us to set individual goals that are related to blended learning, "The school head assists us with the development of goals that are related to blended learning", and "The school head provides the teachers with orientation and training programs" with mean ratings of (M=3.85), (M= 3.81), and (M=3.75) respectively.

The findings suggest that in terms of leadership and supervision, the school administrators ensure that the teachers are competent enough to implement this new normal mode of teaching setting and assist the teachers in their individual goals regarding the blended learning modality. Likewise, the school administrators set support network team to provide pedagogical and technical support to equip the teachers with the necessary skills to implement blended learning.

The findings are in accord with the DepEd's initiative of equipping the teachers with skills in digital literacy ((Bana, Romasame, & Cristobal, 2016). Furthermore, extensive technology integration in education is necessary to actively engage learners to reach their full potential (Vergel de Dios, 2016). Additionally, Bhebhe& Maphosa (2016) argues that modern-day teachers need to be highly computer literate to support students' interest to fit well in the advanced society. Furthermore, Information and Communication Technologies (ICTs) in teaching and learning in the 21st century should ensure that school faculty embrace and utilize up-to-date information to enhance students' learning

Problem 6. Is there a significant relationship between the level of implementation of blended learning and the demographic profile of the teachers, challenges encountered, opportunities, and attitudes toward blended learning?

Table 13:- Correlation Analysis between Implementation, Demographic Profile, Challenges, Opportunities, and Attitude towards Blended Learning.

Independent Variables	**Correlation Coefficient (r)**	**Probability**	**Interpretation**
Demographic Profile			
Sex	-0.03	0.50	Not Significant
Age	-0.05	0.38	Not Significant
Educational Attainment	-0.02	0.97	Not Significant
Teaching Experience	-0.02	0.72	Not Significant
Perceived Computer Competency	-0.10	0.08	Not Significant
Stability of Internet	-0.09	0.12	Not Significant
Challenges			
Technological	0.19	0.01	Significant
Instructional	0.09	0.11	Not Significant
Collaboration	-0.01	0.91	Not Significant
Assessment and Evaluation	0.29	0.00	Significant
Opportunities			
Pedagogical Principles	0.33	0.00	Significant
Flexibility	0.40	0.00	Significant
Creativity	0.29	0.00	Significant
Time Management	0.28	0.00	Significant
Collaboration	0.31	0.00	Significant
Attitudes	0.37	0.00	Significant

** Correlation is significant at 0.01 level (2-tailed)

The data in Table 13 reveal the correlation analysis between the implementation, demographic profile, challenges, opportunities, and attitude of teachers toward blended learning. It can be deduced from the table that the demographic profile of the teachers, such as sex, age, educational attainment, teaching experience, perceived computer literacy, and internet connection stability, has no significant relationship to the level of implementation of the blended learning. Thus, the null hypothesis is accepted. Romo (2017) conducted a study, and the results showed that sex, age, educational attainment, position/rank, years in service, and teaching load does not affect the teaching performance of the CTE faculty. However, civil status and religion significantly related to their teaching performance. This implies that their civil status affects their teaching performance.

The table also shows that among the constructs under the challenges, instructional and collaboration were found to be of no significant relationship with the level of implementation of the blended learning; hence, the probability level is more significant than (R= 0.05). Therefore, the null hypothesis is accepted on this premise. However, technological and assessment and evaluation have a significant relationship with the level of implementation of the blended learning modality as indicated by the probability levels (R=0.01) and (R=0.00), respectively. Therefore, technological assessment and evaluation have a significant relationship with the level of implementation of blended learning modality.

According to the International Association for K-12 Online Learning (2013), a coordinated, intentional, and systematic professional development plan, based on stated goals, should be in place. Professional development and collaboration should be customized based on the needs of the blended learning teachers and administrators. Likewise, successful implementation of blended learning requires the use of digital learning systems that provide teachers, school administrators, students, and parents with real-time student data, student progress in the course, and the ability to quickly adapt content and instruction based on student performance (Martin, Budharani, & Wang, 2019).

Problem 7. Which of the independent variable/s, singly or in combination, influence the level of implementation of blended learning?

Table 14:- Multiple Regression Analysis between Independent Variables and Level of Implementation

Variables	**Unstandardized Coefficients**		**Standard Coefficients Beta**	**T**	**Sig.**
	B	**Std. Error**			
(Constant)	2.07	0.34		6.17	0.000
Sex	-0.21	0.09	-0.11	-2.31	0.022
Age	0.03	0.05	0.04	0.55	0.583
EQ	-0.04	0.04	-0.05	-0.99	0.323
Experience	-0.14	0.04	-0.23	-3.07	0.002
Computer Literacy	0.06	0.05	0.07	1.21	0.226
Internet Connection	-0.07	0.05	-0.08	-1.47	0.144
Technical	0.25	0.11	0.16	2.32	0.021
Instructional	-0.02	0.08	-0.02	-0.21	0.831
Collaboration	-0.52	0.08	-0.52	-6.31	0.000
Assessment	0.67	0.09	0.65	7.96	0.000
Pedagogical Principles	0.25	0.07	0.29	3.66	0.000
Flexibility	0.18	0.10	0.19	1.82	0.070
Creativity	-0.33	0.09	-0.37	-3.64	0.000
Time Management	0.18	0.10	0.22	1.79	0.071
Collaboration	-0.48	0.12	-0.54	-4.12	0.000
Attitudes	0.45	0.09	0.52	4.97	0.000

R = .640	R^2 = .410	F = 12.08	Sig. = .000

Dependent Variable: Level of Implementation

Table 14 presents the influence of the independent variables to the dependent variables. Obviously, the level of implementation of blended learning approach was affected by: sex, (ß = -0.11, t = -2.31, p<.01), teaching experience, (ß = -0.23, t = -3.07, p<.01), technical, (ß =0.16, t = 2.32, p<.01), collaboration, (ß = -0.52, t = -6.31, p<.01), assessment and evaluation, (ß= 0.65, t = 7.96, p<.01), pedagogical principles,(ß = 0.29, t = 3.66, p<.01), creativity, (ß = -0.37, t = -3.64, p<.01), collaboration, (ß = -0.54, t = -4.12, p<.01), and attitude, (ß = -0.52, t = 4.97, p<.01).

The findings imply that sex, teaching experience, technical, collaboration, assessment and evaluation, pedagogical principles, creativity, and attitude significantly influence the implementation of the blended learning modality. More precisely, the predicted scores for values of the independent variables are indicated by the beta weights (β) which means that each additional score/unit accounted by these variables would imply an increase of the level of implementation of the blended learning modality. Feldman & Ng (2011) investigated the moderating effects of sample and research design characteristics on the relationships between education and job performance. Significant results were found for gender, race, job level, and job complexity. However, the finding deviates from the study of Martin, Budhrani& Wang (2019), which states that gender does not affect the faculty's perception of e-learning, and both have similar frequencies of technology use. However, studies have shown that gender differences and civil status are worth further investigation.

Furthermore, the R^2 value explains the influence of the whole set of independent variables taken as one on the level of implementation of the blended learning modality. The measure of the total variation of the dependent variable consisted of 41%, which reflects the amount of variance explained by the nine (9) independent variables. In comparison, 59% of the conflict can be attributed to other factor variables not included in the study.

From the preceding analysis, however, the value equation in predicting the percentage of stakeholders' satisfaction (Y) as indicated by the (F-value=12.08) with its corresponding probability value (P=.000) is significant at (p<.01).

This model is illustrated:

Y = -0.21X1 -0.14X2 +0.25 X3-0.52X4 +0.67X5+0.25X6-0.33X7-0.48X8+0.45X9+2.07

Where: 2.07 = constant

Y = Level of Implementation
X1 = Sex
X2 = Teaching Experience
X3 = Technical
X4 = Collaboration
X5 = Assessment & Evaluation
X 6 = Pedagogical Principles
X7 = Creativity
X8 = Collaboration
X9 = Attitude

Therefore, the null hypothesis that there is no independent variable, singly or in combination, that influenced the level of implementation of the blended learning modality is rejected. Thus, the demographic profile of the participants, such as sex and teaching experience, challenges, opportunities, and teachers' attitudes, significantly influence the implementation of the blended learning modality. This is supported by Fiel (2020), stressing that one more variable that has a significant relationship to the adaption of blended learning is the faculty's attitude toward blended learning. Many teachers understand the role of this new type of learning as an essential tool in this modern era.

Conclusions:-

Based on the significant findings of the study, the followings conclusions were drawn:

1. The teaching profession is dominated by female teachers. This implies that there are more female teachers in elementary education.

2. The teacher-participants considered the four constructs under the variable challenges, namely: technological, instructional, collaboration, and assessment and evaluation as a great challenge in the implementation of the blended learning modality during the pandemic. These dimensions may influence the implementation of blended learning if not addressed immediately. The school administrators can upscale the teacher's capability in these areas through in-service pieces of training.
3. The five constructs under opportunities, namely: pedagogical principles, flexibility, creativity, time management, and collaboration, are substantial opportunities.
4. The teachers have a positive attitude towards the blended learning modality. The high positive attitude of the teachers to blended learning is an indication that they are motivated, and this will have a significant influence on how this learning modality is implemented in public schools.
5. The blended learning modality was highly implemented in elementary school during this pandemic. This mode of learning modality can be sustained to supplement if the in-person classes are resumed and if in case there is a surge of COVID cases.
6. Technological and assessment and evaluation challenges, pedagogical principles, flexibility, creativity, time management opportunities, and attitudes are significantly related to the level of implementation of the blended learning modality during the pandemic. These suggest that improvement and preparation of teachers in many aspects of blended learning are necessary to implement this learning modality effectively.
7. The level of implementation of blended learning modality was statistically influenced by: sex, teaching experience, technical, collaboration, assessment and evaluation, pedagogical principles, creativity, and attitude. Technological, collaboration, and assessment and evaluation challenges must be addressed adequately so that there would be a smooth and effective implementation of the blended learning modality. A positive attitude towards this approach would mean efficient and effective program implementation.

Recommendations:-

Based on the significant findings and conclusions of the study, the following are offered:
1. The school heads may take appropriate interventions to sustain the needs of the teachers regarding implementing blended learning in their instructions. Since the teachers consider technology as a great challenge, it is, therefore, necessary to supply extensive education and technology training in the utilization of the new technologies.
2. A training program for teachers that might be focused on alternative forms of assessment to maintain the integrity of assessment and evaluation. Moreover, proper scheduling of parents' conferences may be scheduled to discuss with them the academic achievement of their kids and what possible help they can extend to enhance their child's performance.
3. administrators need to encourage engagement by actively informing all the teachers on any discussions, topics, questions, and comments about new technologies available because, without proper information and implementation, attention to these materials will fall short and will lead to disentanglement.
4. The teachers may strengthen their linkage with the stakeholders to assist in the reproduction of the learning materials needed in the implementation of the blended learning modality.
5. Future researchers are advised to go in-depth learning about this study to be able to validate the present findings from their collected results. They may conduct a similar study using other variables in another setting with bigger sample size.

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