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Teachers' readiness, collaboration and competence in blended- teaching under new normal

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Abstract

The transition to blended learning under the new normal has challenged teachers regarding their readiness, collaborative practices, and instructional competence, yet the interrelationships among these dimensions remain underexplored in Philippine basic education. This study investigated the levels of and relationships between teachers' readiness, collaboration, and competence in blended teaching. A descriptive-correlational research design was employed with 264 randomly selected public elementary school teachers from the Roxas City Division. Data were collected using three validated researcher-developed questionnaires measuring readiness (technological requirements and instructional materials), collaboration (parent-teacher, learner-teacher, teacher-teacher, and principal-teacher), and competence (instructional, pedagogical, and personal). Pearson r correlation analysis was used to determine relationships among variables. Teachers reported very high levels of readiness (M=4.52, SD=0.40), collaboration (M=4.52, SD=0.31), and competence (M=4.51, SD=0.33). Significant positive correlations were found among all three variables: readiness and collaboration ($r=0.657$, $p<0.001$), readiness and competence ($r=0.590$, $p<0.001$), and collaboration and competence ($r=0.836$, $p<0.001$). Teacher readiness, collaboration, and competence are mutually dependent, with collaboration demonstrating the strongest relationship to competence. Enhancing collaborative practices among teachers, principals, and parents may be a strategic pathway to improving overall teaching effectiveness in blended learning environments

Keywords: Blended Learning; Teacher Readiness; Teacher Collaboration; Teacher Competence; Basic Education; New Normal; Philippines

1. Introduction

The global education sector has undergone a fundamental transformation in what has been termed the “new normal,” marked by an unprecedented integration and reduction of curricular content and a rapid shift in instructional delivery. Educational systems worldwide have been compelled to adopt responsive approaches, with a pronounced turn toward technology-mediated instruction (Ertmer et al., 2012). In this landscape, many institutions have moved to fully online or blended learning modalities. Notably, blended learning commonly defined as an instructional approach that combines traditional face-to-face classroom methods with online digital activities, requiring the physical presence of both teacher and learner while offering students varying degrees of control over time, place, and pace was already described as the “new normal” in educational technology (Norberg et al., 2011). Its flexibility positions blended learning as a promising model for sustaining quality education during disruptive times (Graham, 2013).

In the Philippines, the transition to this new normal has surfaced serious challenges. Two major obstacles have been identified: widespread gaps in Internet connectivity, and the urgent need to adapt curricula and instructional materials for a blended learning environment. Digital learning resources are of limited value if the requisite network infrastructure is inaccessible. Budgetary allocations, equipment provision, and expanded commercial Internet access

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are thus critical to improving nationwide digital connectivity (Serafica and Oren, 2022). Beyond infrastructure, the successful integration of digital technology hinges on teachers' readiness and willingness to adopt new tools. Educators must be able to use technology to supplement the curriculum, enhance their own efficiency, and foster student-centered learning (Chen, 2010). This demands competencies that go beyond subject-matter knowledge, as teachers shift from traditional materials to digital and innovative resources. Required competencies include both the skill and the knowledge to apply digital tools across all curriculum domains and to extend student learning beyond the classroom (Kong, 2014).

Equally important are the collaborative linkages among schools, homes, and communities. The Philippine Department of Education (DepEd) has mandated the development of strong partnerships to ensure the effectiveness of any Distance Learning Delivery Modality, emphasizing shared accountability among schools, parents, guardians, and the wider community (DepEd Memorandum DM-CI-2020-00162). For blended learning to succeed at the local level, parents and guardians must be empowered to actively support the learning process. Teachers are now tasked with creating learning modules, while parents must be equipped to maximize the educational value of these materials. This necessitates deliberate and sustained collaboration between teachers and parents, who share the goal of improving both academic completion and holistic student development (Darling-Hammond, and Cook-Harvey, 2018). Such collaboration demands constant communication and mutual support across all levels from DepEd officials and school administrators to teachers and families.

Despite these acknowledged requirements, a significant gap remains in the empirical understanding of how teacher readiness, collaboration, and competence concurrently function in the Philippine basic education context under the new normal. In Roxas City Division, the researcher observed that many schools and teachers lack the necessary ICT frameworks and digital competence to effectively implement blended learning. Teachers frequently rely on colleagues for technical assistance and struggle to produce the digital learning resources that blended teaching incorporating both modular print and online delivery demands. While the importance of readiness, competence, and collaboration is frequently discussed separately in the literature, a paucity of research investigates how these three dimensions interrelate and influence the implementation of multiple learning delivery modalities in this specific setting.

Addressing this gap is critical, as insights into these interrelated factors can directly inform targeted professional development, resource allocation, and policy interventions. The purpose of this study, therefore, was to explore teachers' readiness, collaboration, and competence in implementing multiple learning delivery modalities as part of the basic education learning continuity framework. A secondary aim was to determine whether significant relationships exist among these variables. Specifically, this investigation sought to assess how ready, competent, and collaborative teachers are to deliver blended instruction within the current educational landscape.

Objectives of the Study

This study sought to determine the teacher's readiness, collaboration, and competence in blended teaching under the new normal in basic education.

Specifically, it sought to answer the following problems:

- What is the level of teachers' readiness in blended-teaching in terms of technological requirements, and instructional materials of elementary school teachers in Roxas City Division?
- What is the level of teachers' collaboration in blended-teaching in terms of Parent-Teacher collaboration, Teacher-Teacher Collaboration, and Principal-Teacher Collaboration of elementary school teachers in Roxas City Division?
- What is the level of competence in blended teaching in terms of Instructional Competence, Pedagogical Competence and Personal Competence of elementary school teachers in Roxas City Division?
- Are there significant relationships among the Teachers' Readiness and Collaboration in Blended-Teaching in Roxas City Division?

Hypothesis of the Study

Based on the stated problem of this study, the following hypotheses were tested:

There are no significant relationships among teachers' readiness, collaboration and competence in blended-teaching in Roxas City Division.

2. Methodology

2.1. Research Design

This study employed a descriptive-correlational research design using a survey method. The purpose was to explore, within the context of the "new normal" in basic education, the relationships among teachers' readiness, collaboration, and competence in blended teaching.

A correlational design was chosen as it allows the identification of variables and the investigation of the nature and strength of relationships between them, as well as the potential testing of theoretical models that explain those correlations (Creswell, 2014). In this study, the independent variables were teachers' readiness (measured by the Teachers' Readiness in Blended-Teaching Questionnaire) and teachers' collaboration (measured by the Teachers' Collaboration in Blended-Teaching Questionnaire), while the dependent variable was teachers' competence (measured by the Teachers' Competence in Blended-Teaching Questionnaire). Descriptive statistics included frequency count, percentage, mean, and standard deviation; the inferential statistic used was Pearson r, with the alpha level of significance set at 0.05.

2.2. Participants and Sampling Procedure

The target population consisted of all public elementary school teachers in the Roxas City Division (N = 778). A sample of 264 teachers was randomly selected using simple random sampling, a technique where each member of the population has an equal and independent chance of being included, chosen to enhance the representativeness of the sample and to allow generalization of the findings. The sociodemographic profile of the respondents was described in terms of age, sex, civil status, highest educational attainment, years of working experience, and number of ICT-related trainings attended. The majority of respondents were female (77%), aged 30 years and above (83%), married (78%), without postgraduate studies (57%), with five or more years of working experience (85%), and having attended three or more ICT-related trainings (74% cumulatively). A detailed frequency and percentage distribution of these characteristics is presented in a table within the results section.

Table 1 Profile of the Respondents

Variable	**f**	**%**
Sex		
Male	60	23
Female	204	77
Age		
Young (Below 30 years old)	46	17
Old (30 years old and above)	218	83
Civil Status		
Single	59	22
Married	205	78
Highest Educational Attainment		
With postgraduate studies	114	43
Without postgraduate Studies	150	57
Years of Working Experience		
Below Five Years	41	16
Five Years and Above	223	85
ICT Related Trainings Attended		

None	64	24
1-2	6	2.3
3-4	65	25
5-6	3	1.1
Above	126	48
Total	264	100

Table 1 shows the distribution of the respondents by categories, namely: sex, age, civil status, highest educational attainment, years of working experience, and ICT related trainings.

2.3. Research Instrument

The researcher-made questionnaires were used as data-gathering instruments. All instruments underwent content validation by a panel of experts (adviser and external consultants) based on the Five-Point Criteria of Good and Scales. Afterwards, each questionnaire was pilot-tested on 30 teachers from the same division who were not part of the main sample. Pilot data were used for item analysis (difficulty index), leading to retention, revision, or removal of items. Reliability was established using Cronbach's alpha (1), with a coefficient of 0.80 or higher considered acceptable. The Teachers' Readiness in Blended-Teaching Questionnaire was a 20-item scale measuring readiness in terms of technological requirements and instructional materials/resources. The Teachers' Collaboration in Blended-Teaching Questionnaire was a 40-item scale covering four dimensions: parent-teacher, teacher-learner, teacher-teacher, and principal-teacher collaboration. The Teachers' Competence in Blended-Teaching Questionnaire measured competence across three domains: instructional competence, pedagogical competence, and personal competence. All three instruments used a five-point Likert scale as shown below:

Responses	**Description**
5	Strongly Agree
4	Agree
3	Uncertain
2	Disagree
1	Strongly Disagree

For the descriptive interpretation of the mean score, the scale below was used:

Responses	**Description**
4.21 – 5.00	Very High
3.41 – 4.20	High
2.61 – 3.40	Moderate
1.81 – 2.60	Low
1.00 – 1.80	Very Low

2.4. Data Gathering Procedure

Prior to data collection, the researcher obtained written permission from the Division Superintendent, Division Supervisors, and school principals of the Roxas City Division. After approval, questionnaires were distributed face-to-face while observing proper health protocols such as masking and physical distancing. Participants were given one week to complete the survey. Returned questionnaires were checked for completeness, and responses were tallied and encoded into SPSS Version 23 for subsequent analysis.

2.5. Data Analysis and Interpretation Procedure

The following statistical techniques were employed in the analysis of the gathered data. Frequency count and percentage were used to describe the sociodemographic profile of the respondents. Mean was used to determine the average levels of teachers' readiness, collaboration, and competence. Standard deviation was used to measure the dispersion of scores around the mean. Pearson r (Pearson product-moment correlation) was used to assess the direction and magnitude of relationships among the three variables (readiness, collaboration, and competence). All statistical tests were conducted with the alpha level of significance set at 0.05. .

2.6. Ethical Requirements

2.6.1. Ethical Approval and Informed Consent

The study was conducted in accordance with ethical research standards. Approval was obtained from the Division Superintendent and other relevant school division authorities before the study began. Participation was entirely voluntary, and informed consent was implied by the return of a completed questionnaire. Anonymity and confidentiality were guaranteed, as no personally identifying information was collected from the respondents. All data were used solely for research purposes and were stored securely.

Limitations

This study has several limitations. First, it relied on self-reported data from a single school division, which may limit the generalizability of the findings to other populations or settings. Second, the cross-sectional design precludes any causal inferences about the relationships among readiness, collaboration, and competence. Third, the use of researcher-developed instruments, while validated and reliable, may not capture all dimensions of the constructs. Future research should consider including qualitative methods (interviews or focus groups) to gain deeper insights into teachers' experiences and to complement the quantitative findings.

3. Results and Discussion

3.1. Level of Teachers' Readiness in Blended-Teaching in Roxas City Division

Table 2 presents the level of teachers' readiness in blended-teaching in Roxas City Division. Data reveal that the level of teacher's readiness of elementary school teachers in Roxas City Division in blended-teaching as a whole is reported "very high" (M=4.52, SD=.40) and in terms of technological requirements, is "very high" (M=4.52, SD=0.40) and instructional materials is "very high" (M=4.48, SD=0.41).

Table 2 Mean and Standard Deviation of Teacher's Readiness in Blended Teaching

Variable	Mean	Description	SD
Teacher's Readiness in Blended Teaching	4.52	Very high	0.40
Technological Requirement	4.56	Very high	0.47
Instructional Materials/Resources	4.48	Very high	0.41

Scale	Description
4.21-5.00	Very High
3.41-4.20	High
2.61-3.40	Moderate
1.81-2.60	Low

The "very high" result of technological requirements indicates that teachers in the Division of Roxas City are ready because they have their personal laptops, computers, printers, and internet connections readily available to conduct teaching-learning process in the new normal. They employed strategies to encourage active blended learning with the

support of digital technologies and manipulative materials. In additional, teachers attended different trainings/webinars provided by the Department of Education to enhance the academic skills of teachers.

Contrary to the present result of Gimbert and Cristol (2004) opined that technology has great potential to enhance curriculum and teaching processes. However, teachers may not be ready to integrate technology and not have adequate knowledge and skills to utilize technology to support the curriculum. The National Council for Accreditation of Teacher Education (NCATE) emphasized those teachers must take advantage of technology for instruction and be prepared to use technology effectively in the classroom. Educational agencies in the last decade have focused on preparing teachers to integrate digital technology in instruction.

The "very high" result of instructional materials/resources implicates those teachers in Roxas City Division have different supported instructional materials, LAS (Learning Activity Sheets), reading materials provided to their learners, formative/assessment test to evaluate or determine the learning outcomes, a teachers made test/downloaded test in additional. The school provided printer, ink, bond paper and they like to print the self-learning modules.

Results were supported by Bušljeta (2013) who pointed that teaching and learning resources are important in education because they motivate and encourage learners to utilize more than one sense hence increasing their attention and retention capacity. This means that the use of various instructional media is essential for mastery of content. This indicated that media resources are useful in teaching.

It was posited that teaching and learning resources create motivation in learning (Adedoyin and Altinay, 2023). Thus, it can be said that combination of various instructional media is vital when ones need to achieve the desired objectives in any leaning.

3.2. Level of Teacher's Collaboration in Blended-Teaching in Roxas City Division

Table 3 shows the level of collaboration of elementary school teachers in Roxas City Division is "very high" (M=4.52, SD=.31). The level of collaboration is "very high" (M=4.50, SD=.36) for Parent-Teacher Collaboration, Learner-Teacher Collaboration is "very high" (M=4.52, SD=.40), Teacher-Teacher Collaboration is "very high" (M=4.53, SD=.36), and Principal-Teacher Collaboration is "very high" (M=4.55, SD=.38).

Table 3 Mean and Standard Deviation of Teacher's Collaboration in Blended Teaching

Variable	Mean	Description	SD
Teacher's Collaboration in Blended Teaching	4.52	Very high	0.31
Parent-Teacher Collaboration	4.50	Very high	0.36
Learner-Teacher Collaboration	4.52	Very high	0.40
Teacher-Teacher Collaboration	4.53	Very high	0.36
Principal-Teacher Collaboration	4.55	Very high	0.38

Scale	Description
4.21-5.00	Very High
3.41-4.20	High
2.61-3.40	Moderate
1.81-2.60	Low
1.00-1.80	Very Low

Data revealed that the result is "very high" in teachers' collaboration in blended-teaching. It means that elementary teachers work cooperatively under blended learning instruction to cope the demand of the new normal education. They work harmoniously and think different strategies to deliver and give better learning to their clientele.

Parent-teacher collaboration is "very high" which means that teachers and parents accepted and embrace their collaborative roles in securing better student outcomes for students especially during this pandemic.

This further highlighted those parents and teacher set a time and place where and when is the distribution and retrieval of the modules practicing the proper health protocol and also through online communication, teachers talk to parents on how they can help in their children's education. Parents are welcomed by the teachers to ask their problems or concerns regarding about the lessons of their children.

Result corroborates the findings of Nelsen (2011) who viewed those parents and teacher share the same goals for children and students; they want each individual to do their best to not only to finish their studies but also to see their improvement in every discipline. This will happen when parents and teachers work together. This can happen in a number of ways: first, keeping lines of communication open between parents and teachers. Second, parents help by setting time for schoolwork at home. Third, teachers can send newsletters, create blogs, make phone calls, and send report cards and follow-ups to parents. Fourth, parents can attend parent/teacher meetings to make sure those parents are all on the same page with teachers and students. Fifth, parents can volunteer in the school improvement projects.

The "very high" level of collaboration between learner and teachers is reported in this study. The results of current research show that both teachers and students opt for collaboration inside and outside the class. This collaboration effect student's learning. The learners were given a chance to ask to their teachers regarding about their unmastered lessons. Communication is open both.

This was emphasized in the results that teachers provide pupils with instructional support as necessary like videos and other instructional materials through their messenger and other platforms and scheduled meetings, always recognize pupil's effort and progress by providing students with specific, immediate, and frequent feedback, spend time with pupils discussing the lessons in the modules after they receive their copies in blended teaching, and listen to pupil's opinions and ideas during an online orientation of the modules.

A "very high" level of collaboration is identified between teacher-teacher collaboration of elementary teachers in Roxas City Division. This manifested those teachers come together to share information, resources, ideas, and expertise which makes learning becomes more accessible and effective for students. The school conducted LAC Session in order to enhance the knowledge and skills of the teachers in pedagogical aspects and to improve the teaching-learning process used by the teachers.

This result was further highlighted when teachers revealed that teachers seek opinions and suggestions to my colleagues to answer other queries regarding modular instruction and online instruction, share knowledge and expertise with other teachers to solve problems of teaching and learning, sit down and discuss together the different strategies, methods and techniques in improving the skills in making additional learning materials to be use in blended-teaching, and spontaneously come together to solve problems of teaching and learning.

Data from the study revealed a "very High" level of collaboration between principal and teachers in Roxas City Division. This shows that principal and teachers are working together in teams, sharing responsibilities, providing feedback and building trust. The school principal itself reached out their teachers to sit down and talk on what to do, plans for the betterment of the children's education and for the school as a whole.

The results reported that both principal and teachers promote and share school responsibility with the principal on student learning, share school responsibility with the principal on student learning, teachers are made aware of the most current practices and makes the discussion of these a regular aspect of the school's culture with the principal, and incorporate advice from the principal to make decisions.

It is clearly evident that qualities of relationships between principal and teachers foster partnerships and prevent conflict. Based on the research conducted by Griffiths et al. (2021), emphasized that collaborative partnerships are engaging in open and honest communication, taking responsibility for working together as a team across home and school environments, sharing common goals, and engaging in mutual child-centered decision-making in order to move children forward and create positive student outcomes. These qualities require strong leadership and clear structures and, if achieved, would mark a schools' attainment of progress.

3.3. Teacher's Competence in Blended-Teaching in Roxas City Division

Table 4, reveals the level of teacher's competence in blended teaching of the elementary school teachers in Roxas City Division is "very high" (M=4.51, SD=.33). The level of competence is "very high" considering instructional competence (M=4.51, SD=.37), pedagogical competence is "very high" (M=4.49, SD=.40), and personal competence is "very high" (M=4.54, SD=.36).

Table 4 Mean and Standard Deviation of Teacher's Competence in Blended Teaching

Variable	Mean	Description	SD
Teacher's Competence in Blended Teaching	4.51	Very high	0.33
Instructional Competence	4.51	Very high	0.37
Pedagogical Competence	4.49	Very high	0.40
Personal Competence	4.54	Very high	0.36

Scale	Description
4.21-5.00	Very High
3.41-4.20	High
2.61-3.40	Moderate
1.81-2.60	Low

The study found that elementary teacher's competence in Roxas City Division is "very high". This means that teachers are competent in teaching under the blended learning environment. They have the knowledge and skills to improve the performance of the learners. Similarly, a model of teachers' professional competence identifies four non hierarchically structured aspects of competence: knowledge, beliefs, motivation, and self-regulation. According to this model, knowledge as a key component of teachers' professional knowledge can be divided into different domains with more specific facets: content knowledge, for instance, implies the deep understanding of the contents of a particular discipline. Pedagogical content knowledge concentrates on didactics, on how to teach domain-specific matters. Finally, there is professional knowledge which also contains general aspects of knowledge not specific to a certain domain, such as general pedagogical, organizational and counselling knowledge. While the model emphasizes knowledge aspects in particular, it also elaborates competencies that are related to the attitudes and personal motivations of teachers (Blašková et al., 2014).

A "very high" level of teacher's competence in blended teaching in terms of instructional competence is determined among elementary teachers in Roxas City Division.

This is true because according to the result reported that teachers manifest confidence and firmness with every information being provided in a blended-teaching, evaluate students' performances fairly and uses adequate and accurate standard measures of evaluation, able to relate the current situations to their lessons in giving additional activities, and relate activity sheets on the current MELC Based competencies.

Result is supported by the findings of the Jadama (2014) who posited that teacher's role is very vital and critical in explaining the subject matter to the students. They summarized those teachers who are without in-depth knowledge of their subject contents will not be able to challenge students' knowledge and ability.

The pedagogical competence of elementary teachers in Roxas City Division is "very high". This indicates that teachers are able to manage learning that includes the ability to plan the techniques, methods, strategies, approaches and they like and to carry out this different process of learning.

Results revealed by the respondents and specified that teachers have a good command of the contents of the course, give proper credit to the outputs given by the learners, apply the established curriculum with a certain amount of flexibility for a better result of blended-learning, attend and respond clearly to questions asked by the class, and organize activities for the student to actively participate in subject assignments.

It is a shared assumption that general pedagogical knowledge can be acquired. A sizable number of studies have shown that teacher education and professional development can be effective in enhancing teachers' general pedagogical knowledge and knowledge-related skills (Toom, 2017).

Data show that elementary teacher's personal competence is "very high". Teachers possessed skills to include self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. This was emphasized on the results that teachers use the right tone of voice and words when speaking with colleagues, have all the required resources to make their own innovations in learning, work to a high standard, being consistent in attitude, and meet deadlines and standards for work and produce reports to target. The result is supported by Van der Zee (2012) who highlighted that an inspiring teacher can affect students profoundly by stimulating their interest in learning. It is equally true that most students have encountered teachers who were uninspiring and for whom they performed poorly. Unfortunately, effective and ineffective teachers have no readily discernable personality differences. Some of the very best teachers are affable, but many ineffective instructors can be personable and caring. Conversely, some of the best teachers appear as stern taskmasters, but whose influence is enormous in motivating students to accomplish things they never thought possible. Typically, the finest teachers display enthusiasm and excitement for the subjects they teach. More than just generating excitement, they provide a road map for students to reach the goals set before them. The best teachers are proficient in the technical competencies of teaching: instructional delivery, formative assessment, and classroom management. Equally significant, they are fluent in a multi-layered set of social skills that students recognize and respond to, which leads to greater learning.

3.4. Relationships among the Teacher's Readiness, Collaboration, and Competence in Blended-Teaching in Roxas City Division

Pearson r correlation among teacher's readiness, collaboration and competence in blended teaching are shown in Table 4. There is a positive strong significant level relationship between teacher's readiness and collaboration in blended teaching (r=.657, sig=.000). It appeared that the relationships between teacher's readiness and competence in blended teaching is positive moderate significant relationship (r=.590, sig. =.000). A positive very strong significant relationship is observed between teacher's collaboration and competence in blended teaching (r=.836, sig.=.000).

Table 5 Pearson r Among Teacher's Readiness, Collaboration and Competence in Blended Teaching

Variables	r	Sig
Teacher's Readiness and Collaboration in Blended Teaching	0.657*	0.000
Teacher's Readiness and Competence in Blended Teaching	0.590*	0.000
Teacher's Collaboration and Competence in Blended Teaching	0.836*	0.000

* p<0.05 significant @5% apha level ns p>0.05 not significant @5% alpha level

Table 5 shows the result of Pearson r among teachers' readiness, collaboration and competence in blended teaching. The result showed that teachers' readiness and collaboration in blended-teaching has a positive strong significant relationship. It means that readiness is a significant factor to collaboration, the result of readiness will affect the result of collaboration. Readiness of teachers in blended teaching signifies that there was a strong collaboration between parent-teacher, learner-teacher, teacher-teacher, and principal-teacher collaboration.

Similarly, effective collaboration affects student achievement in a positive manner when collective inquiry focuses on the right work (Goddard et al., 2015). The findings from this study indicated that leadership in the collaborative process plays a vital role in teachers' classroom practices and their collaborative efforts, and has a positive impact on student academic outcomes.

The result for teachers' readiness and competence in blended-teaching has a positive moderate significant relationship. It shows that a teachers' readiness could be a factor to competence. The readiness of the teachers will determine to the competence of the teachers. Teachers are both ready in technological requirements and instructional materials then teachers are also competent in instructional, pedagogical and personal competence.

The result showed that there was a positive very strong significant relationship between teachers' collaboration and competence. It means that teachers' collaboration is a highly significant factor to competence.

It signifies that there was a successful implementation of teachers' collaboration in terms of teachers-learner, parent-teacher, teacher-teacher and principal-teacher collaboration that leads to the success of being a competent teacher in terms of instructional, pedagogical and personal competence.

Thus, the null hypothesis which states that there are no significant relationships among the teacher's readiness, collaboration, and competence in blended-teaching programs was rejected.

4. Conclusion

In the light of the aforementioned findings of the study, the following conclusions were drawn:

Teachers' readiness on technology requirements and instructional materials of public elementary school teachers in Roxas City Division was "very high". This was practiced at all times. This result was due to teachers' performance which is essential to promote and engage learning and in order to develop the teaching-learning process.

Collaboration between parent-teacher, learner teacher, teacher-teacher and principal-teacher was "very high". This was evident and exhibited at all times. Collaboration is very important to learners, teachers, parents and principals. All of them worked together with constant cooperation to achieve the learning goals under the blended-learning environment.

The level of teachers' competence on instruction, pedagogy, and personal was "very high". This was evident and exhibited at all times. A competent teachers may produce competent students. Teachers' competency may lead to the better improvement of the learners towards blended learning education. This may result to a higher student achievement.

Teachers' readiness, collaboration, and competence are mutually dependent. Teachers' readiness is very essential to develop the teachers' competence for the delivery into the teaching-learning process under the blended-learning environment. So, teachers' readiness and competence could be a way in developing the student learning performance if collaboration initiatives are implemented

Compliance with ethical standards

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Disclosure of conflict of interest

The author declares no conflict of interest, financial or otherwise, that could have influenced the design, execution, interpretation, or reporting of this study. For the sole author, Ji-an G. Barros, no financial or non-financial conflicts of interest require disclosure.

Statement of ethical approval

The present research work involved human subjects (teachers). All procedures performed in this study involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments. Ethical approval was obtained from the Schools Division Superintendent of Roxas City Division and the relevant school division authorities prior to data collection; no additional external ethics committee approval was required under local institutional guidelines for survey based, non invasive educational research conducted within the division.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study. Participation was entirely voluntary, and completion and return of the questionnaire constituted implied informed consent. No personally identifying information (names, addresses) was collected, and anonymity and confidentiality were guaranteed to all respondents.

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