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## Language Teachers' Pedagogical Orientations in Integrating Technology in the Online Classroom: Its Effect on Students Motivation and Engagement

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### Abstract

The present study assessed the language teachers' pedagogical beliefs and orientations in integrating technology in the online classroom and its effect on students' motivation and engagement. It utilized a cross-sectional correlational research survey. The study respondents were the randomly sampled 205 language teachers ( $\mu = 437$ ,  $n = 205$ ) and 317 language students ( $\mu = 1800$ ,  $n = 317$ ) of select higher educational institutions in the Philippines. The study results revealed that respondents hold positive pedagogical beliefs and orientations using technology-based teaching in their language classroom. Test of difference showed that female teachers manifested a firmer belief in student-centered online language teaching than their male counterparts. However, the utilization and attitude towards technology in the language classroom is favorably associated with the male teachers. As to students' level of language learning motivation and engagement, it was found out that male and female students have high level of language learning engagement. Further, the test of relationship showed that the higher the teachers' belief in utilizing student-centered teaching to integrate technology in the language classroom, the higher the students are motivated and engaged in learning. In like manner, it was also revealed that teacher-centered belief is negatively correlated to student's motivation and engagement in online language learning. In this regard, the pedagogical assumptions that hold EFL teachers positively to integrate technology in the language classroom. This study generally offers implications for enhancing language teacher's digital literacy to promote motivating, fruitful, and engaging language lessons for 21st century learning.

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**Keywords:** Teachers' Pedagogical Orientation, Technology, Language Learning, Online Classrooms

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### INTRODUCTION

Education is affected by technological advancements. The usage of technology in education is on the rise as a teaching tool. Unfortunately, not all EFL instructors utilize recent advances to improve learning in the classroom (Ding et al., 2019, Martin et al., 2020, Al-Ahdal & Algashm, 2020, Al-Ahdal,

2020a). Other things are equal. One of the key things driving variables of technology usage is the teacher's beliefs. Teachers' classroom activities are heavily affected by their pedagogical values, and they would thus adopt an English learning style that best fits their beliefs (Chen & Kent, 2020). EFL pedagogical views (formal or colloquial) go from preparing, executing, and reviewing the language program to evaluating the guidance. Teacher-centered belief focuses on the teacher's information and understanding, while student-centered belief focuses on student participation and achievement (Tondeur et al., 2017). An earlier study showed that teachers who have a student-centered pedagogical viewpoint usage of technology in their classes are most favored by the student than teachers with a teacher-based pedagogic activity (Lo, Hew, 2020, Zhou & Wei, 2018, Al-Ahdal, 2020b). There is yet to be any study on the impact of teachers' pedagogical values on student learning interest through the use of technology in the classroom any of the recent research did not consider pedagogical beliefs (Yimaz, 2017, Burke et al., 2018, Alley, 2019, Jeong, 2019). Hence, in this present study, the researcher would look at EFL teachers' pedagogical values and learning commitment about using technology more precisely. The researcher is interested in discovering which dimensions of pedagogy have the most significant impact on students' learning engagement.

### **Teachers' Pedagogical Beliefs and Orientations**

Several views regarding teachers have been mentioned in the report. A belief system is a mental representation that predicts or indicates a fact or a state of validity that the individual understands to provide personal confidence grounds. According to Tondeur et al. (2017), it is a conviction that a group of concepts is felt to be accurate; whereas, intelligence is referred to as empirical propositions and concepts. Generally, belief is called right in that it serves as a medium by which the individual filters his or her perception (Lo & Hew, 2020, Magulod, 2018a). A teacher's confidence in teaching and comprehension of education may be applied to as a pedagogical belief teachers' views are influenced through prior interactions, which serve as the base for planned activity and classroom behavior. In this study, pedagogical beliefs may be defined as the EFL teachers' suppositions (Yilamz, 2017, Chen & Kent, 2020). Teachers generally have two types of beliefs: the teacher-centered belief and the students' student-centered belief is usually built on behaviorist beliefs (Burke et al., 2018, Alley, 2019). Students' assessment results are proof of the teacher's teaching. Information fed into the students like they are mere receptacles of checked facts (Lai, Hu & Lyu, 2018). often interpret their views as const and assign teachers the role of promoting students' creation of significance and interpretation of phenomena they experience (Hinostroza et al., 2021). Thus, the two views represent ESL teachers' teaching methods in their teaching response to methodology beliefs (Olelewe et al., 2021, Magulod Jr, 2018b).

### **Technology in Language Education**

Most new devices help language learning. Technology usage has been shown to enhance different facets of language learning, such as growing encouragement to study English, increasing vocabulary capacity, and the like advances that language teachers have not maximally used (Jaafar et al., 2021, Polat & Harabatak, 2021, Magulod, 2019). Technology is not adequately supported in their teaching. Teachers utilize technology in education regardless of their pedagogical values (Bouchey et al., 2021, Tai & Chen, 2021, About-Khalil et al., 2021). Technology plays a vital part in teaching as it filters all that is positive and valuable into the teacher's values. In a study by Polat and Karabatak (2021), it was discovered that teachers with EFL-centered pedagogical beliefs displayed lower levels of engagement in utilizing technology for instruction. Teachers with a student-centered pedagogical value are observed to resist using technology in lesson planning (Wang et al., 2021). When instructors have student-centered values, they utilize and incorporate technologies more often and more productively in the classroom. Teachers of pedagogical belief use teaching technologies to direct students' creation of higher-order reasoning, promote learning, improve students' capacity to utilize expertise and abilities, and offer a forum for practice (Akonhog, 2021, Machisi, 2021, Tadesse et al., 2021).

## **Language Teachers' Pedagogical Orientations in Integrating Technology**

Classification of language teachers' pedagogical orientations may be done in the community environment of teacher-centered and student-centered (Tadesse et al., 2021). To better grasp EFL instructors' teacher-centered and student-centered community environment established. This approach has been applied in other research, such as the values of teachers of the English language and how they incorporate technology into their pedagogy (Barrett et al., 2021, Divekar et al., 2021) possible implementations (in which he categorizes teachers' pedagogical values into three categories: skill-based, rule-based, and application) (focusing on using the target language in communicative contexts). The theory of Johnson (2006) can be applied to language instruction. For example, whether the instructor wanted to use a digital time and sound or phrase patterns repeatedly, this might be seen as a skill-based activity since consistency and memorization are important aspects of technology incorporation. If the instructor provided reference books and dictionaries to help with students' vocabulary improvement, this might illustrate an instance of rule-based instruction. This is, but if an instructor used a function-based approach to engagement, this might be said to be an ask-based activity (Karaseva et al., 2018).

## **Language Students Learning Engagement**

Leaning engagement is necessary for active participation. Investment in learning includes a total commitment to a position in the education process. Both mental and physical concentration contribute to student participation in classroom teaching and learning (Mei et al., 2018, Koh et al., 2017). Thus, in this case, we should describe involvement as involvement or activeness of students in learning. Students' cumulative learning process in the classroom is crucial. According to most estimates, however, students are assessed. An estimated 80% of English teachers assess progress solely dependent on production rather than making it possible for learning (Johnson, 2006, Sadaf & Johnson, 2017, Kawinkoonlasate, 2019). School involvement increases overall student success (Tsai et al., 2019, Lai et al., 2017). Being present and engaged in the learning process will often give students the chance to discover their potential. Teachers must invest significant time into quality education to inspire students. Students' growing interest in learning would impact learning results and learning efficiency (Gong & Lai, 2018, Tavakoli et al., 2019).

## **Objectives of the Study**

While several surveys assessed student participation in technology-based learning, teachers' pedagogical views are not deeply explored. Generally, this study aims to determine the language teachers' pedagogical orientations in integrating technology in the online classroom and its effect on students' motivation and engagement. Specifically, it seeks to provide answers to the following objectives: (1) ascertain the language teachers' pedagogical orientations on the use of technology-based teaching; (2) determine the students level of online language learning engagement; (3) assess the difference in the pedagogical styles of instructors when grouped according to their profile variables; (4) test the relationship between teachers' pedagogical orientations in integrating technology in the online classroom and its effect to students' motivation and engagement.

## **METHODOLOGY**

### **Research Design**

The study employed a descriptive correlational survey research design language teachers' pedagogical views on online learning and its relationship to student's motivation and engagement in the online language classroom. Hence, this study is also cross-sectional. Such design described the relationship between the study's identified variables with the end view of promoting an engaging language lesson online. Qaranta (2017) noted that descriptive correlational survey research design is a type of study in which investigators are interested in ascertaining the relationship among variables.

### ***Participants and Sampling Technique***

The study respondents were the randomly sampled 205 language teachers ( $\mu= 437$ ,  $n= 205$ ) and 317 language students ( $\mu= 1800$ ,  $n= 317$ ). The study employed a systematic random sampling technique. The official list of teachers and students was requested from university authorities through a written notice. The free online Raosoft sampling calculator was used set with a 5% margin of error, 95% confidence level, and 50% distribution rate to compute the sample. Meanwhile, in selecting the study samples, the systematic sampling technique was employed with three as the random start number for the teacher-respondents and 5 for the student respondents. As to ethical considerations, the authority to conduct the study was granted by the university. Informed consent was obtained from both groups of participants.

**Table 1**  
*Participants Profile*

	Teacher-respondents	Percentage Distribution	Student-Respondents	Percentage Distribution
Male	110	35 %	89	43 %
Female	207	65 %	116	57 %
<b>Total</b>	<b>317</b>	<b>100%</b>	<b>205</b>	<b>100%</b>

As shown in Table 1, most of the respondents are female compared to the male respondents. The participants' information and data privacy sheets were distributed before the start of the study. Moreover, anonymity, confidentiality, and privacy were observed before and after accessing the respondents' data. They were also oriented on the sole purpose of the research, and data gathered from them were solely kept confidential, and it was only intended for the conduct of this study.

### **Instruments and Procedures**

The research tools of the study consisted of two sets. As follows, for teachers to ascertain their Pedagogical beliefs and Orientations in Integrating Technology in the Online Classroom, it was adapted from the tool of Palak (2004) on the teachers' view in technology utilization in the classroom. The instrument consisted of five dimensions: teachers' philosophy in education, teacher preparation for computer utilization, confidence in using technology, computer integration in the classroom, and attitude towards computer utilization. Consequently, an adapted and modified questionnaire from Saheb (2015) was utilized for the student respondent. It has three dimensions, namely intrinsic, integrative and extrinsic engagement and motivation. Both research tools were pre-tested by the researcher with the help of experts. The mode of data gathering was done through an online survey using Google Survey form. Before it was utilized, the respondents were contacted by the researcher through phone call and an email requesting them to answer the instruments sent in their email account. Security settings were put in the survey, such as providing the respondents' password to access the file. This was done to avoid duplication of data.

### **Data Analysis**

The researcher used the following data analysis methods to investigate student success variables. The frequency and percentage were employed to assess the respondents' characteristics, and the mean and the weighted mean and standard deviation were employed to quantify the variables. T-test and ANOVA were used data that involved inferences followed by a formal comparison to see out there is a substantial gap between groups when dealing with classroom variables. This scale was employed: 4.20-5.00: Always/ Strongly Agree; 3.40-4.19: Very often/ Agree; 2.60-3.39: sometimes/ Undecided; 1.80-2.59: rarely/ Disagree; 1.79: never/ Strongly Disagree. The Statistical Pack for Social Science (SPSS) software version 20 was used.

## RESULTS AND DISCUSSION

### Language teachers' pedagogical orientations on the use of technology-based teaching

Table 2 presents the language teachers' pedagogical orientation with the use of technology-based teaching. It is noteworthy that the language teacher-respondents have a high level of assessment of their pedagogical orientation in using technology. They assessed themselves to have embraced a high level of student-centered belief ( $x=3.46$ ,  $sd=0.34$ ) and teacher-centered belief ( $x=3.50$ ,  $sd=0.25$ ) in language teaching. This shows that the respondents hold the view in language teaching a mixed approach of educational philosophies. In like manner, they manifested a high level of preparation in using the computer ( $x=3.44$ ,  $sd=0.23$ ) and a high level of computer integration in their language lessons ( $x=3.50$ ,  $sd=0.21$ ), implying that they have a good level of competence to utilize technology devices for their online classroom.

Further, the language teachers also manifested a highly positive attitude towards computer utilization ( $x=3.43$ ,  $sd=0.31$ ). Indeed, the teachers have positive pedagogical beliefs and orientations on using technology-based teaching in their language classrooms. This finding of the study suggests that the teachers hold a positive view of technology in the language classroom. Hence, they are progressivist in nature.

**Table 2.**

*Language teachers' pedagogical orientations*

Dimensions	Mean	SD	Interpretation
Student-Centered Belief	3.46	0.34	High
Teacher-Centered-Belief	3.50	0.25	High
Teacher Preparation for Computer Utilization	3.33	0.23	High
Integration of Computer in The Classroom	3.50	0.21	High
Attitude Towards Computer Utilization	3.43	0.31	High

Legend: 4.20-5.00: Very High/ Strongly Agree; 3.40-4.19: High/ Agree; 2.60-3.39: sometimes/ Undecided; 1.80-2.59: Low/ Disagree; 1.79: Very Low/ Strongly Disagree

Several studies have been conducted earlier on the pedagogical beliefs of teachers in technology integration. Chien and Wu (2020) noted that teachers' beliefs about classroom practice tended to play a role in influencing their technology priorities and the weight they attributed to various technological barriers. Tondeur (2020) noted that Any teacher, regardless of the cause, argued that there is a need for them for adequate technology tools in the classroom, the scarcity of available technologies differently, as each had distinct opinions on what should be done in school. In like manner, Ifinedo et al. (2020) confirmed that teachers' pedagogical beliefs are directly tied to their technological use. Teachers' pedagogical principles can both promote and hinder technology incorporation. Beliefs on how students succeed are threats to the application of technologies. External hurdles include a shortage of resources and tools and planning, guidance, and assistance. 2nd-order inhibitors include such as values, perceptions about technology, and tolerance to transition, among other things. Previous studies assessed teacher's information literacy and teaching beliefs since the onslaught of CCOVID 19. It was found out that when teachers were teaching, beliefs in correlated to their IT literacy (Nelson & Hawk, 2020, Anderson & Putman, 2020, Backfisch et al., 2021, Top et al., 2021).

### Students' level of online language learning engagement and motivation

Table 2 addressed the research question on the students' level of online language learning engagement and motivation. The computed grand mean ( $x=3.39$ ) shows that the students have an appropriate online language learning engagement and motivation level. Such an appropriate level of

engagement is attributed to the teacher's different learning tasks in their online classroom. Listening, speaking, reading, and writing assignments need to be revisited by the teacher to assure a high level of language learning engagement. In like manner, as to how the students view their language learning, the table shows that they have high extrinsic-engagement and motivation ( $x=3.41$ ,  $sd=0.14$ ). This implies that the students find their online English class motivating based on teachers' teaching styles and personality. Moreover, the students manifested a reasonable level of intrinsic engagement and motivation.

**Table 2.**  
*Level of Engagement of the Students in Online Learning*

<b>Dimensions</b>	<b>Mean</b>	<b>SD</b>	<b>Interpretation</b>
Intrinsic Engagement and Motivation (student-focused)	3.37	0.23	Fair
Extrinsic Engagement and Motivation (teacher-focused)	3.41	0.14	High
<b>Grand Mean</b>	<b>3.39</b>		<b>Undecided</b>

Legend: 4.20-5.00: Very High/ Strongly Agree; 3.40-4.19: High/ Agree; 2.60-3.39: fair / Undecided; 1.80-2.59: Low/ Disagree; 1.79: Very Low/ Strongly Disagree

Learning motivation among students is instrumental in language learning. Researches on the role of motivation in language learning showed that it has a crucial role in students' language skills. Motivation is essential in the growth of language proficiency (Schiller & Dorner, 2021, Lai & Tai, 2021, Man et al., 2021, Harvey, 2017). Teachers are essential in having learners achieve their second or international language targets. A variety of factors affect motivation. Hence, when stimulation is emphasized in language classes, language teachers can encourage students to appreciate language learning. Explanation presents learners with a focus and objective to keep in mind. Thus, it is a crucial function in language learning. Difficulties do occur because learners do not have enough drive. It is hard for learners to increase their abilities if they are not involved in gaining them. According to Oga-Baldwin and Fryer (2020), paying attention to language value increases encouragement, even though inherent motivation is absent. Teachers should be aware of how learners learn to be inspired.

Studies found that students in classes who had their motivations in common learned to be at their own pace, becoming more at ease (Yang et al. 2020, Huang et al., 2020). Other notable results from the test scores found that motivation affects language performance (Zainuddin et al., 2020, Chen & Kent, 2020). According to Hoi (2020), instrumental motivation is more significant than social motivation in learning a second language. One other finding was that integrative encouragement is more important in studying English as a second language. It was said that students were very interested in learning English. Reiterer et al. (2020) announced that inspired learners concentrate more effort on improving their language learning skills and so on gaining goals. There is evidence to suggest that learners who choose to master a language quickly will achieve a high degree of fluency. Applying this concept, the author claimed that a positive and relaxed classroom environment is essential for inspiration and language acquisition. Danesh and Shanaazari (2020) argued that motivation could not be established in a challenging classroom. Perhaps most importantly, language acquisition takes place in a calm and informal classroom. Oga-Baldwin and Fryer (2020) have argued a correlation between extrinsic encouragement and language learning strategies.

### **The difference in the pedagogical styles of instructors when grouped according to sex variable.**

Table 3 presents the significant differences in the pedagogical styles of instructors when grouped according to sex variable. Results showed a significant difference in the teachers' pedagogical styles and technology integration beliefs when grouped according to sex. Among the dimensions which showed differences are on student-centered belief ( $p$  value= 0.034), teacher preparation for computer utilization ( $p$ -value = 0.012), integration of computer in the classroom ( $p$ -value = 0.029), and attitude towards

computer utilization (p-value = 0.043) while no difference is found on the belief of teachers on teacher-centered online language teaching. Hence, the null hypothesis of the study is rejected. This means a significant difference in the teachers' pedagogical styles in technology integration when grouped according to sex variable.

**Table 3.**  
*Level of Engagement of the Students in Online Learning*

Dimensions	Sex	Mean	P value
Student-centered Belief	Male	3.48	0.034*
	Female	4.34	
Teacher-Centered-Belief	Male	3.45	0.374 ns
	Female	3.49	
teacher preparation for computer utilization	Male	4.21	0.012*
	Female	3.52	
integration of computer in the classroom	Male	4.18	0.029*
	Female	3.41	
Attitude towards computer utilization	Male	4.32	0.043*
	Female	4.16	

\*= significant at 0.05 level ns= not significant at 0.05 level

This study implies that female teachers manifested a higher belief in student-centered online language teaching than their male counterparts. Such finding is attributed to the nature of female teachers in manifesting caring and motherly behavior. The result of the previous study shared a similar trend where it was concluded that women are better teachers because of their mothering experiences and gentle behaviors than males (Carrell et al., 2010, Carrington et al., 2008, El-Emadi, et al., 2019, Slavich & Zimbardo, 2012). Corollary to this, it has been shown that females are more interested in teaching and consider it a rewarding career for the vast majority of them. Since women are easily articulate and emotional, they share their preferences and dislikes. The greatest feature of a woman being multi-talented. They are capable of dealing with the students, paying attention to the class, staying on top of each student, and dealing with the students' issues if needed. Nowadays, teacher gendering has changed to be more relaxed and casual. They may not quickly get frustrated.

In like manner, this study showed that male teachers have a higher level of preparation, integration, and attitude towards using computers than their female counterparts in language classrooms. This means that male teachers tend to manifest higher technology acceptance than females. It also displayed that female language teachers have lower confidence in using technology for language teaching. Previous studies concluded that teaching with STEM is highly associated with male teachers' skills than their female counterparts (Sibgatullina et al., 2019, Woodcock, 2021, Jatiningsih et al., 2020, Xu & Williams, 2019). For emphasis, there was a substantial gap in men's perceptions of STEM expertise and familiarity, as found by Ibe et al (2013). They assessed 454 male and female teachers from 227 secondary schools. Results showed that male teachers have a better understanding of the subject matter than female teachers.

### **The difference in the Students' level of online language learning engagement and motivation**

Looking at the differences of the students' level of online language learning engagement and motivation when grouped according to sex as profile variable, it shows that no significant difference in the level of engagement of the students. It shows that the gender of the students is not a factor of difference in the online language learning engagement and motivation among the students. Hence, the null hypothesis of the study is accepted. This simply shows that both male and female students have high intrinsic and extrinsic language learning engagement and motivation.

**Table 4.**

*Level of Engagement of the Students in Online Learning*

Dimensions	Sex	Mean	P value
Intrinsic Engagement and Motivation	Male	3.45	0.34 ns
	Female	3.54	
Extrinsic Engagement and Motivation	Male	4.13	0.14 ns
	Female	4.18	

\*= significant at 0.05 level ns= not significant at 0.05 level

It can be inferred that in the context of this study, both groups of students manifested a favorable attitude towards online language learning. This study confirms Abu-Radia (1997) finding out no significant difference in the language learning attitude of male and female students in the Canadian context. Hence, this likewise contradicts further studies that female students favor language learning motivation and engagement since they are naturally linguistically-inclined than the males (Yashima, Nishida, Mizumoto, 2017, Torres & Alieto, 2019, Al-Dosari, 2016). Previous studies noted that gender was a significant factor in second language motivation (Baker & MacIntyre, 2000, Chaffee et al., 2020, Halimi, Daniel, C& AlShammari, 2020, Namaziandost & Çakmak, 2020, Turner, Li, & Wei, 2021) where they emphasized that females were more motivated than males in language learning. Hence, this study's present result showed that gender is not a factor in language learning motivation since both male and female respondents are capable of appreciating the role of online learning in their language learning. Hence, this result of the study manifested that intrinsic and extrinsic motivation to learn language through online mode is closely related to the appreciation of the male and female students to learn the language as part of their career preparation.

#### **Relationship between teachers' pedagogical orientations in integrating technology in the online classroom and its effect on students' motivation and engagement**

Table 4 shows that there is a significant relationship between the teachers' pedagogical orientations in integrating technology in the online classroom to students' motivation and engagement. Hence, the study's null hypothesis stating no significant relationship between pedagogical orientation and student motivation, is rejected. It can be seen in that table that student-centered belief (r value= 0.778, p-value = 0.043), teacher preparation for computer utilization (r-value = 0.698, p value= 0.012), integration of computer in the classroom (r value= 0.723, p value= 0.011), and attitude towards computer utilization) r value= 0.863, p value= 0.023) are positively related to the student's level of engagement. This suggests that the teachers' belief in utilizing student-centered teaching to integrate technology in the language classroom, the higher the students are motivated and engaged in learning. In like manner, it was also revealed that teacher-centered belief (r value= -0.531, p value= 0.032) is negatively correlated to students motivation and engagement in online language learning, which signifies that teacher-directed learning such as the use of one-way directed learning is found not appealing to the motivating characteristics of the language students.

**Table 4.**

*Relationship Between teachers' pedagogical orientations in integrating technology in the online classroom and its effect on students' motivation and engagement*

	students' motivation and engagement on online learning (r value)	P value
Student-Centered Belief	0.778	0.043 *

Teacher-Centered-Belief	-0.531	0.032 *
Teacher Preparation for Computer Utilization	0.698	0.012 *
Integration of Computer in the Classroom	0.723	0.011 *
Attitude Towards Computer Utilization	0.863	0.023 *

\*= significant at 0.05 level ns= not significant at 0.05 level

This means that the higher the teacher adhered to teacher-centered beliefs, the lower the students' felts motivated and engaged. The reasons behind this finding are when students are empowered to explore and learn language lessons with the use of student-centered teaching strategies in online learning. The higher students manifest motivation and engagement. For emphasis, the teachers' beliefs on technology integration significantly influenced students learning motivation. It can be explained that when teachers have a positive attitude towards the use of technology in the classroom, the better they manifest a student-centered teaching approach which eventually influences students learning behavior. The teacher's language learning tasks in online learning, such as digital games, blogging, podcasting, Facebook, WhatsApp, Viber, and learning management network, are considered by the students since the students are provided learning opportunities to learn at their own pace and develop their linguistic competence using the technologies common at their generation.

Further, this study suggests the need for language teachers to adhere to student-centered language learning approaches and strategies to allow students to appreciate language learning tasks and lessen student's language learning anxiety. The result of this study confirms previous investigations that teachers' pedagogical beliefs in technology integration influence student's motivation (Chamorro & Rey, 2013, Cheng et al., 2020, Cullen & Greene, B2011, Fryer & Bovee, H2016, Ottenbreit-Leftwich, et al., 2020). However, there is no agreed-upon concept of principles relevant to teacher technology incorporation. Further studies need to confirm this result so as they arrive at conclusive findings. Hence, this correlation regarding beliefs relating to technology among language teachers on online learning has been investigated on their self-perception and ideas only, limiting this present study. Studies affirmed that the importance of immersive technologies for learning is noteworthy because it promotes student engagement. Basing a pedagogical understanding of what is essential in understanding student learning and teaching, it is necessary to know teachers' diverse philosophies of learning and teaching concerning technology. Encouraging schools to revisit teachers' beliefs and technology integration practices will empower teachers to take their roles as 21<sup>st</sup>-century facilitators. Therefore, teachers' digital literacy and opinions on student-centered practices will help enhance language teachers' capability.

## Conclusion

The present study utilized a cross-sectional correlational research survey to assess student participation in technology-based learning and teachers' pedagogical views. The concerning study randomly sampled 205 language teachers ( $\mu= 437$ ,  $n= 205$ ) and 317 language students ( $\mu= 1800$ ,  $n= 317$ ) of three higher educational institutions in the Philippines. The study results revealed that respondents hold positive pedagogical beliefs and orientations on using technology-based teaching in their language classrooms. Test of difference showed that female teachers manifested firmer belief in student-centered online language teaching than their male counterparts. However, the use of technology in the language classroom is favorably associated with male teachers. As to students' level of language learning motivation and engagement, it was found out that male and female students have a high level of language learning engagement.

Further, the test of relationship showed that the higher the teachers' belief in utilizing student-centered teaching to integrate technology in the language classroom, the higher the students are motivated and engaged in learning. It was also revealed that teacher-centered belief is negatively correlated to students' motivation and engagement in online language learning. The reason behind this finding is when students are empowered to explore and learn language lessons with the use of student-centered teaching strategies in online education. The higher the students manifest motivation and engagement. In this regard, the pedagogical beliefs that hold EFL teachers to integrate technology in the language classroom positively. Hence, teachers must be able to revisit their thoughts about using technology in EFL classrooms, affecting students' language learning engagement and motivation.

## Implications

Based on the findings, this idea could be adopted by the management at other schools to improve EFL teachers' pedagogical beliefs and values by using technology as a means of learning. To promote collaboration between EFL learners and technologies can be used to involve them in group discussions of language constructs and concepts like type Intended to include students in learning experiences and make learning outcomes obtainable. The following are the practical and managerial implications of the study: first, school administrators need to revisit their language teachers' pedagogical benefits in technology integration since school leadership impacts teachers' adoption and implementation of innovation. Secondly, continuous capacity building for teachers on technology integration will become effective and efficient 21<sup>st</sup>-century language educators. Thirdly, the provision of adequate technology resources for teachers is necessary due to language instruction's support curriculum particularly to those female teachers who showed lesser level of attitude and use in technology integration in the language classroom.

As a future research direction of the study, the results on the positive relationship between teachers' pedagogical beliefs and student engagement can be further verified through mixed-method research. In like manner, the inclusion of other personal profile variables such as rank, age, and level of exposure to technology tools by the teacher can be integrated for future investigations. On the part of the students, there is a need for further studies to ascertain their level of academic performance. Its real relationship to their exposure to the teaching styles' beliefs of the teachers may be conducted. Further, the use of actual experimental research design and Structural Equation Modeling (SEM) may provide better inferences on the findings of the problem of inquiry related to this.

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