



Exploring the Role of Professional Learning Community on Teacher's Instructional Fits: A Voice of Indonesian Teachers

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Abstract: In the aftermath of the COVID-19 pandemic, technological resources and their utility in education have undergone a revolution, especially in the Indonesian education system. There is an urgent need to develop strategies for maximizing the use of advancing technological tools to improve students' academic achievement. This research aims to investigate the challenges that teachers face in employing blended learning and the benefits they get from their involvement in Professional Learning Communities (PLCs). The current study employed Mixed Method Research involving 30 respondents to fill out the questionnaire, and six were invited to be interviewed. The results demonstrate that teachers' participation in PLCs has enabled them to enhance their pedagogical competence and technology literacy. The results also show that teachers have applied blended learning as an emerging learning approach in post-Covid-19. The study results imply that teachers' involvement in PLC learning activities affects their competence to integrate technology into their teaching practice, including implementing blended learning. The study results contribute to the dissemination of information to educational stakeholders and academic forums for teachers as input for undertaking effective professional development for teachers and as references for future research.

Keywords: blended learning, instructional fits, mixed method research, professional learning communities

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INTRODUCTION

The pandemic has significantly disrupted daily educational activities. The emergence of open and online learning methods has increased competition among educational institutions (Buheji et al., 2020; Kara, 2021). Future student expectations for learning and instruction will be shaped by the lessons acquired by educational institutions throughout the pandemic and by students' experiences with remote delivery. This underlines the importance of educational institutions in finding out their worth selling propositions in a tough market. In addition, educational institutions have often implemented learning strategies to adapt their educational offering to students' requirements by making it more flexible and accessible. Blended learning, which involves the use of both online and offline resources, is an example of the new culture emerging due to the widespread use of ICT for educational purposes around the globe, including in Indonesia. Blended learning is an instructional strategy combining traditional classroom instruction with digital learning tools (Bashir et al., 2021). In blended learning, students can participate personally in every learning session synchronously and/or asynchronously (Beatty, 2019).

Three premises point to the necessity of incorporating ICT into educational implementation today. First, more people should have access to and be covered by higher education coverage. To aid the Indonesian government's goal of expanding educational opportunities, several schools, like Universitas Terbuka Indonesia (UT, literally Indonesia Open University), have begun offering courses online. The Indonesian government, for example, developed a system of distance education to increase the population's access to and participation in higher education. Second, it is hoped that the online learning modalities offered by digital education services would encourage more transparency and freedom of expression between students and tutors. According to Azhari and Fajri (2021), virtual education allows distance learners and instructors to easily and organically convey their ideas, socialize with others, search for the topic much more easily, and manage learning activities in a stretchy manner.

Essentials of blended learning have been extensively adopted since COVID-19 (Feitosa de Moura et al., 2021; Garad et al., 2021). This includes a broad variety of primary, secondary, and higher education institutions. Students at Universitas Terbuka, for instance, have access to an online learning platform where they may see course materials, participate in online discussions, take quizzes, and turn in assignments. Online lecture recordings have also been made available to students as a review aid in addition to synchronous lecture delivery. Virtual learning has allowed students to learn based on their conditions and capacities (Utomo et al., 2020). Lastly, instructors/tutors can better assist and monitor their students' online course progress when they post interactive introductory materials. Students are more engaged, they are more likely to link their own experiences

to the issue at hand, and they are given more chances to voice their thoughts thanks to the range of techniques. Much weight has been placed on creating PLCs over the past 20 years to support and enhance teacher understanding and skills, which will raise students' accomplishments (Prenger et al., 2019; Schaap & de Bruijn, 2018). Research shows that PLC activities can provide a technical focus and foster the trust, respect, and collegiality needed for instructors to work more productively (Glaze-Crampes, 2020). Early PLC research has shown that effective teacher-learning communities are significant contributors to improving instruction and implementing school improvements (Schaap & de Bruijn, 2018). In addition, Crawford (2007) justifies that PLCs elicit teachers' perspectives on their work because they are active and intentional entities. Crawford further convinces that a PLC provides a potent means of fostering synergy, cooperation, and the development of an atmosphere conducive to change.

When educators work together to address practical problems, they provide various solutions pertinent to their pupils' education. PLCs offer a solid conceptual framework for changing educational practices by emphasizing student accomplishment and enabling teachers to work together and address common practice issues in their own classrooms (Antinluoma et al., 2021; Glaze-Crampes, 2020). PLCs also encourage teachers to oblige to a shared vision to improve student achievement (Glaze-Crampes, 2020). In PLCs, teachers collaborate to discover practical solutions to issues and assess the success of their pedagogical improvement efforts based on student progress. In a PLC, student learning serves as both the goal and the driving force (Vijayadevar et al., 2019). A study by Glaze-Crampes (2020) describes how a team of high science teachers who participate in a PLC begins implementing one inquiry-based teaching technique in their practices. The results show that instructors' involvement in PLCs allows them to embrace the inquiry-based teaching approach, which they are not accustomed to at the study's outset.

On the other hand, access to education has become more widespread and comprehensive because of technology. This is crucial because it has long been a tenet of Western education that co-locating teachers, pupils, and resources in both time and space is essential to education. Both educators and learners must adapt from a context that solely includes the classroom to one that includes a significant online component (Dziuban et al., 2018; Vallee et al., 2020). The quick uptake of educational technologies proves that innovative learning and teaching methods are feasible. However, considerable approach adjustments from educators' faculty and administrators are required for shifts of this size, particularly in higher education, where lectures continue to be the primary mode of instruction. It has been indicated that a successful teacher can direct, guide, inspire, and transmit his expertise and values to his students (Bachtiar, 2022b).

Blended learning is defined as a method of instruction that diminishes time, place, and environmental handicaps while facilitating high-quality teacher-student interactions (Vallee et al., 2020). It is reminiscent of distant learning, which strongly emphasizes the convenience of time, place, and pace of student learning. Research indicates a need to define how well a blended approach might enhance learning because the student experience varies widely and produces diverse learning experiences (Dziuban et al., 2018; Shamsuddin & Kaur, 2020; Vallee et al., 2020). 30% of the information in the blended learning paradigm is presented in person, while 70% is made available online (Sunubi & Bachtiar, 2022). Numerous studies have underlined the importance of educational institutions in the effectiveness of blended or online learning. According to Hrastinski (2019), it is critical that teachers are interested in and capable of teaching in a virtual setting in addition to having well-managed programs. Bates and Sangra (2011) declare solid proof that online students perform just as well as students in classroom instruction, if not better, but more importantly, the results depend on the learning environment. Any distribution method will have problems due to poorly prepared lessons or insufficient resources.

While studies on PLCs and blended learning in the learning environment are emerging, study on the effect of PLCs on teachers' pedagogical competence is scarce, especially in the Indonesian context. How and why educators balance the mix of in-class and online activities is rather missing (Kumar et al., 2021; Malasari et al., 2021). The powerlessness of blended learning in attaining its worth potential can be partly explained by an excessive comprehension of what instructors do when required to incorporate online mechanisms into their learning activities. Only by comprehending current practice can we prepare for its modification. The present study complements the sparse study on the impact of PLC activities on teachers' competence. This research investigates the benefits teachers get from their involvement in Professional Learning Communities (PLCs) and the challenges they face in employing blended learning. The current study was guided by three research questions: (1) What is the lesson learned that teachers experienced from online learning during COVID-19? (2) What are the benefits of teachers' involvement in the PLCs learning process? and (3) How do potential teachers in Indonesia post-COVID-19 implement blended learning?

METHODS

The present research employed Mixed Methods Research (MMR). MMR is characterized as a

methodology that draws on both quantitative and qualitative approaches, enhancing one another advantages because these approaches can provide richer evidence for study results and draw a conclusion (Johnson & Onwuegbuzie, 2016). Consequently, MMR researchers acknowledge that quantitative and qualitative approaches can be beneficial to research, and they vigorously pursue the application and incorporation of both (van Griensven et al., 2014).

The current research was conducted toward the student-teachers of education postgraduate Program UT in three study programs, i.e., the Postgraduate Program of English Language Education, the Postgraduate Program for Elementary Education, and the Postgraduate Program of Mathematics Education. The research site was selected with rich information based on the current research objectives (Gall et al., 2005). In addition, the research environment was carefully chosen and deemed suitable because of research regarding student-teacher experiences of technological competencies while studying in the postgraduate program at UT and participating in PLCs. One of the requirements to register as a student in the three Postgraduate Programs of UT is those who actively teach either in elementary or high schools. The current study involved two steps in collecting data. The participants for the questionnaires consisted of 36 participants (twelve participants from each study program). Two student-teachers from each study program (N = 6) were interviewed to discover the targeted data and triangulate the findings from the questionnaires.

The data-gathering tools in the present study were questionnaires and semi-structured interviews. These two data sources provided triangulation, aiding the study's reliability and validity (Lemon & Hayes, 2020; Moon, 2019). A questionnaire is a self-report tool that may be used to collect information quickly and economically from many potential participants (Mcdonough & Mcdonough, 2014). The current study's questionnaire was split into two distinct sections. Part A (demographic data) provided the participants' demographic information on the aspect of gender, age, teaching experience, and study program. Part B was designed using a Five-Likert Scale ranging from 1 (not at all) to 5 (to a large extent). The ten items in that questionnaire cover two aspects: PLC meeting activities and blended learning implementation. All the questionnaire items in more detail are presented in Table 1. The questionnaire was pilot-tested on the four non-participants before distributing it to the research participants.

Table 1. Statements of questionnaire items

Aspects	Questionnaire items
Professional Learning Communities (PLCs)	1. PLCs members talk with each other about their situations and the specific challenges they face in relation to teaching and learning
	2. Teachers share, observe, & discuss each other's teaching methods & philosophies
	3. Teachers not only work together to share understandings of content knowledge, pedagogical content knowledge, and lesson plan, but also discuss educational policy and curriculum through PLCs
	4. Teachers have autonomy to make decisions regarding their work guide by the norms and beliefs of the professional community
	5. PLCs have helped teachers with technological integration in learning, including at the early stage of online implementation during Covid -19
Blended learning	6. There is a need for teachers to implement a blended learning as an emerging teaching approach post Covid -19
	7. I perform better with blended learning
	8. Blended learning is more tedious
	9. I am in favour of blended learning next semester
	10. I hope to have more training on how to implement blended learning effectively

Participants were given a Google Form questionnaire to fill out and submit at their convenience within two weeks. Email and/or WhatsApp sent all participants the survey link due to the participants' heavy reliance on these communication mediums. To encourage the participants to participate willingly and to express their views, they were informed of the benefit of the study, were informed that none of the data they supplied would be utilized for evaluative reasons and that all data would be treated confidential. The Questionnaires were distributed to 36 student-teachers of education postgraduate programs at UT. Of the 36 questionnaires sent out, 30 (83.3%) of the questionnaires were filled completely and returned.

The second investigative instrument for the current study was semi-structured interviews. Interviews are crucial for qualitative research because well-informed interviewees can offer insightful information about the investigation process (Lemon & Hayes, 2020; Mcdonough & Mcdonough, 2014). In addition, interviews are also

important in qualitative research to understand the perspectives and experiences of the participants and make sense of their world (de Villiers et al., 2021). According to Truong (2021), interviews have several benefits over other types of data collection procedures due to their interactive nature. From the present study context, the semi-structured interviews were done to gain additional information and combine the information gathered from the questionnaires. There were 6 (six) student-teachers from these three different study programs were asked to be interviewed. The six participants were chosen purposefully from three different study programs to get a variation of perspectives (Bachtiar, 2021) from the participants about their impressions and experiences in attending PLC meeting activities and implementing blended learning.

Considering the effectiveness of the interview process, the researcher used Microsoft Teams or Zoom to deliver the questions following the interview guidelines. The interview questions covered two aspects regarding PLCs and blended learning. Some examples of questions in the interview were: *"Did your participation in a professional learning community enhance your content knowledge and pedagogical content knowledge?"* and *"What do you think of the benefit of implementing blended learning in the learning process post-COVID-19?"* The interview was conducted for about 40 minutes using Indonesian to allow the participants to express their ideas comprehensively. The report of the interview results was traced back to their original source using the sequence code reference provided for quotes. The interview transcript was referred to as "IT" in the opening quotation marks of the coding reference for the interview data. Following this, the participants' real names were substituted with numbers to create their pseudonyms. For instance, IT. T. 2 might refer to the interview with teacher 2.

Statistical Package for Social Sciences (SPSS) was employed to transfer and evaluate the quantitative data from the questionnaire. Descriptive statistics like means and standard deviations were used to describe the participant data. The interview was exposed to thematic analysis to excerpt qualitative data. Thematic analysis is a method of identifying emergent themes crucial to interpreting a phenomenon (Bachtiar, 2020; Daly et al., 1997). Boyatzis (1998) outlines a structure of the data that, at the very least, explains and arranges the potential observations and, at the very most, analyzes various elements of the phenomena. For the data analysis, Widodo's (2014) framework was used. The first stage was familiarizing oneself with the data from an interview by analyzing and reading the transcripts many times. The material was then coded systematically with a designated space for transcription symbols, organized into meaningful categories, and presented in an easily digestible way. The next step entailed interpreting and sharing information gleaned from the interviews. To ensure the reliability of the gained data, the participants were asked to confirm or dispute.

RESULT AND DISCUSSION

There were 30 participants who filled out the questionnaires. The participants were from three postgraduate programs (Postgraduate in Elementary Education, English Education, and Mathematics Education). The distribution of the participants based on the study program is shown in Figure 1, and the distribution of the participants based on gender is illustrated in Figure 2. The participants have a range of teaching experiences, starting from 3 years to 12 years of teaching experience.

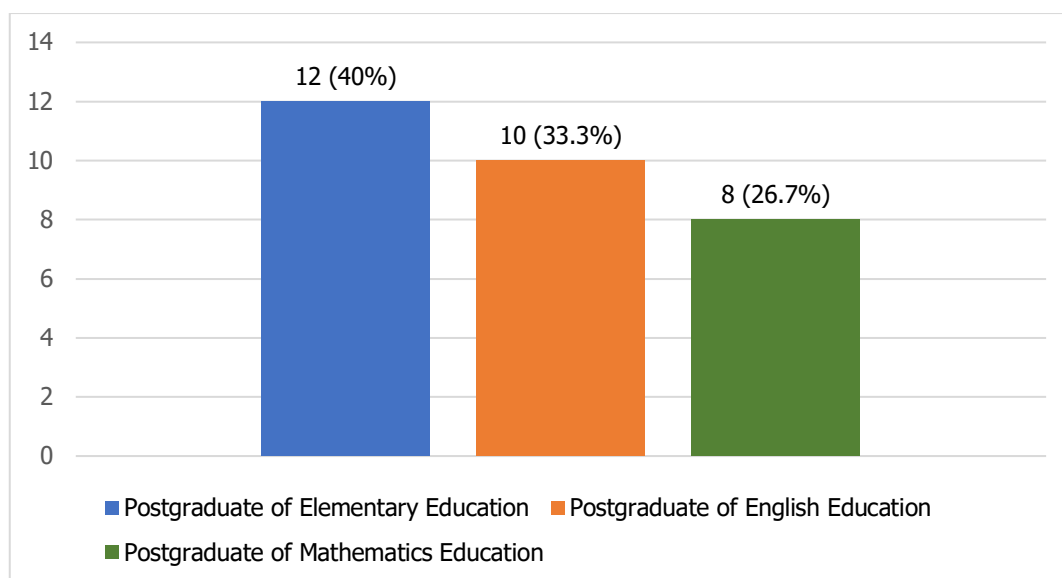


Figure 1. Research Participants based on the Study Program

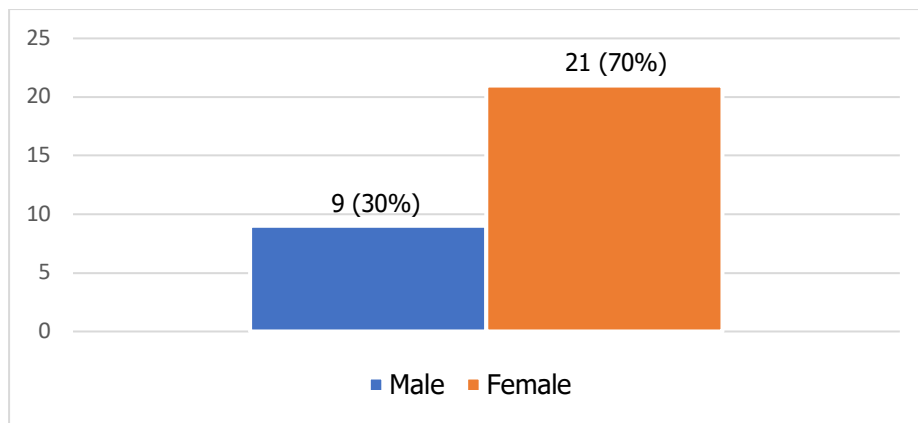


Figure 2. Research Participants based on gender

The results from the questionnaires were compared and integrated with the results from the interviews. Therefore, this section presents key propositions emerging from the findings. Section 1 presents the findings concerning the participants' perceptions of the lessons learned they experienced from virtual learning activities during the COVID-19 pandemic. The second section provides the participants' conceptions of learning modes in Universitas Terbuka and PLCs that impacted teachers' competencies. The final section illustrates the participants' perceptions of blended learning as the emerging learning approach in Indonesia post-COVID-19. All three sections are important for the discussion because they are related to the aims of this research.

Four of the student-teachers in the interview said that many teachers, including their students, were not prepared to move from a face-to-face learning classroom to a fully virtual learning environment at the beginning of the deployment of online learning. A lack of technological expertise regarding digital learning platforms, technology gadgets (smartphones, laptops, etc.) for virtual classrooms, quotas, and internet connectivity influenced their readiness. Additionally, it occurred with their students, most of whom were not prepared for the abrupt shift in how teaching and learning were approached. The results of the present study confirm those from [Bachtiar \(2022a\)](#) and [Lalima and Dangwal \(2017\)](#), who noted that a rapid shift in how learning is delivered did not give educational institutions, particularly students, a chance to adjust. Many teachers and students were unprepared for web-based learning because of the abrupt transition from traditional face-to-face instruction to online learning. Online learning differs from face-to-face learning in that face-to-face learning offers direct social involvement in the classroom and human psychological interactions during classroom activities ([Shand & Farrelly, 2018](#)). Despite many educators' initial unreadiness for online instruction, all interviewees reported feeling pressure to ensure students' success in the virtual classroom via consistent, active online instruction. According to three of the student-teachers, many of their students were drawn to the online course because of the novel learning approach, methodology, and atmosphere they discovered there. These quotes are taken directly from the remarks made by the participants.

Many teachers felt frustrated during the early COVID-19 pandemic due to their obligation to conduct learning proses virtually. Some of them had never done online learning before, which is the main cause of feeling frustrated and demotivated. Many of us also faced handicaps regarding online learning devices (i.e., laptops, mobile phones) and internet access. The learning process was carried out electronically by utilizing internet resources like Learning Management Systems (LMS), which was an intriguing learning experience. We can acquire new knowledge and abilities thanks to the new learning methodology, and we can also stay up with changes in the field of education. Therefore, despite various limitations, we gain priceless understanding and experience (Int. T.5). The abrupt change in the paradigm of educational settings had an impact on teachers' readiness and pupils' motivation in learning, which is another intriguing conclusion from this study. Four interviewees pointed out that many students were first uninterested and hostile about attending web-based learning courses and that the available information bore this attitude. Students' dissatisfaction with the digital learning system may be traced back to several factors, including their unfamiliarity with the system, the absence of interaction between students and teachers, the instability of access to online settings, and the prohibitive internet usage expenses. The study results align with those of prior studies showing that heaps of students had trouble accessing the internet during the COVID-19 epidemic ([Cahyani et al., 2020](#); [Putria et al., 2020](#)). According to [Cahyani et al. \(2020\)](#), using an unsatisfactory internet connection to participate in online learning annoyed students and decreased their motivation to learn. As a result, a reliable internet connection became critical for effective online learning ([Putria et al., 2020](#)). The findings are further supported by [Linjawi and Alfadda \(2018\)](#), who assert that obtaining dependable internet access is essential for the effective adoption of e-learning.

Interestingly, four interviewees asserted that they and their students have learned something new in

online learning. The three participants stated that the COVID-19 pandemic was a blessing in disguise because most of the teachers, including their students, increased their understanding of technological literacy, especially how technology integrates into teaching and learning practices. According to most of the teachers, they are already familiar with and capable of using online devices through Learning Management Systems (e.g., Zoom, Microsoft Teams, Google Classroom). In order to improve learning outcomes, many of them additionally have become familiar with employing Mentimeter, Paddle, Google Slides, and Quizzes as supplementary tools for online instruction. They all concurred that virtual learning has increased their technological knowledge and skills. Their increased technological skills influenced their motivation and favorable attitude toward online learning. Bhuvaneswari and Dharanipriya's (2020) study found that when educators and/or pupils trust themselves to use technology devices, they have a great motivation and perspective toward computer-assisted instruction, demonstrating a moderate to highly favorable attitude toward e-learning. The ability of learners to use technology is another crucial factor impacting their opinions of the process in learning activities (Indriani & Widiastuti, 2021). The more excited pupils are about online learning, the bigger possibility for them to adopt technology. Their attitudes impacted their engagement in the learning process during the virtual learning sessions (Nurani & Widiati, 2021).

Teachers' knowledge of technology is essential for successfully incorporating it into the classroom. Teachers need the right knowledge and abilities to fully employ technology in the classroom to make it more welcoming, appealing, and interesting for all students. Three interviewees highlighted the potential of technological tools to transform classrooms into more engaging, personalized learning experiences for each student. Modern educational technology, shared online schedules, and incorporating digital information into classes are just a few examples of the technological aspects that can revitalize classrooms by increasing student engagement and instructor enthusiasm. Participants agreed that using technology in whole-group lessons effectively reached both aural and visual learners. Additionally, including basic technology like PowerPoints, quizzes, and/or online homework assignments can significantly impact students' academic growth.

What the participants imply above aligns with the importance of ICT integration in today's classrooms (Cleveland-Innes et al., 2009; Qasem & Viswanathappa, 2016). By providing higher education opportunities and services to members of the community who are unable to continue traditional on-campus tertiary education due to factors like location, economics, employment, or other social commitments, ICT use in distance education institutions has made a positive contribution to the need for expanding access (Dziuban et al., 2018; Vallee et al., 2020). Regarding the function and impact of Professional Learning Communities (PLCs) on teachers' pedagogical competencies, all interviewed teachers stated their experiences in joining the PLC activities. PLC activities that they have participated in have provided many benefits for them. One of the invaluable skills they got from the PLCs is technological literacy. The results from the questionnaire also confirmed this (see Table 2).

Table 2. The participants' perceptions of the impact of PLC activities

No	Items	Not at All		Somewhat		50%		To a large Degree		To a Great Extent	
		N	%	N	%	N	%	N	%	N	%
1.	PLCs members talk with each other about their situations and the specific challenges they face in relation to teaching and learning	0	0	0	0	0	0	19	63.3	11	36.7
2.	Teachers share, observe, & discuss each other's teaching methods & philosophies	0	0	2	6.7	8	26.7	15	50	5	16.7
3.	Teachers not only work together to share understandings of content knowledge, pedagogical content knowledge, and lesson plan, but also discuss educational policy and curriculum through PLCs	0	0	1	3.3	7	23.3	14	46.7	8	26.7
4.	Teachers have autonomy to make decisions regarding their work guide by the norms and beliefs of the professional community	1	3.3	3	10	12	40	10	33.3	4	13.3
5.	PLCs have helped teachers with technological integration in learning, including at the early stage of online implementation during Covid -19	0	0	1	3.3	3	10	16	53.3	10	33.3

Table 2 points out that the majority of the participating students felt "to a large degree" for item 1 (PLCs members talk with each other about their situations and the specific challenges they face concerning teaching and learning = 63.3%) and item 5 (PLCs have helped teachers with technological integration in learning, including at the early stage of online implementation during Covid -19 = 53.3%) for the aspect of PLCs. The results of the current research corroborate the previous research (Aditama & Pratiwi, 2021; Gess-Newsome et al., 2019). According to the study by Gess-Newsome et al. (2019), the heart of pedagogical content knowledge is understanding how students comprehend lesson information and having a toolkit of ways to encourage student engagement. Similarly, Kind and Chan (2019) declare that educators' subject-matter expertise is crucial. However, as Kind and Chan point out, knowing the subject well is not always enough to be a great teacher if one does not know how to convey that information to students effectively. To assist teachers in enhancing their instructional practice, effective PLC activities are required. These activities should help teachers gain a deeper understanding of both topic knowledge and pedagogical content knowledge. The present research results follow those of Aditama and Pratiwi (2021), who discovered that teachers desired to be authorities in their fields and be able to impart their knowledge to pupils. The results of this study agree with their findings.

Notably, all the interview participants noted that PLC activities enable and encourage educators to cooperate among themselves, giving opportunities for active participation, receiving feedback, and giving feedback. They could feel less alone in their teaching situation because they participated in PLCs. Effective PLCs, according to one participant, not only let participants share and discuss their knowledge and skills but also make them feel less alone (Int. T.2). Social constructivist learning theories promote the advantages of collaborating in PLCs (Ardiansyah & Ujihanti, 2018; Chuang, 2021). According to social constructivist learning theories, learning happens when people express their own newly acquired knowledge and hear others' thoughts and ideas. The assumption that learning is more successful when there is the chance to interact with individuals and their environment was accepted on some occasions by the participants (Ardiansyah & Ujihanti, 2018). The results of this study are consistent with Psychoyos' (2012) study, which discovers that each member of a PLC contributed to the development of each teacher's expertise and teaching abilities and gained a wider understanding of what constitutes high-quality instruction. The results of this research also corroborate what Glaze-Crampes (2020) finds to be crucial for teachers' teaching success, in which they are given chances to collaborate, take the role of learners, reorganize time restrictions, concentrate on professional trust, and promote problem-solving.

Another worth finding from the current investigation is that PLCs are considered one form of effective professional development, in which teachers have the opportunity to share their skills and expertise and battle isolation, which is another intriguing finding from this study. Because PLCs are interactive, the participants in the current study discovered that these professional forums had assisted them in developing better quality teaching practices and made them feel less alone (Antinluoma et al., 2021; Prenger et al., 2019). For instance, the student-teacher in the current study reports that teambuilding activities were frequently incorporated into PLCs through casual social interaction before, during, and after PLC meetings. This current study result corroborates with other research (Schaap et al., 2019; Schaap & de Bruijn, 2018) on professional learning communities, which enable instructors to share knowledge and advance their practices while reducing isolation and boosting student achievement. Similar results are discovered by Glaze-Crampes (2020) that teachers who take the time to chat with one another about certain areas of their daily teaching demands develop into a learning community.

Both modalities' perceived benefits and drawbacks influence teachers' choices of whether to use virtual or classroom components. All interviewees concurred that learning benefited from both in-person and online instruction. A classroom's time and space constraints are not suitable to be applied to the online settings as a repository. It is also a great method for quickly contacting every student. One of the participants stated: "The beautiful thing about online mode is that you can put material in there those students can access at any time, anyplace. Teachers can swiftly broadcast notices and or lesson materials to their pupils" (Int. T. 2). As a result, the participants denoted teachers who oppose using the online mode as old fashioned to be implemented to introduce a comment on the participants' fondness as the instruction in classroom activities. The questionnaire results confirmed the participants' conception and preferences for blended learning, as seen in Table 4.

Table 3. The participants' perceptions of blended learning

No	Items	Not at All		Somewhat		50%		To a large Degree		To a Great Extent	
		N	%	N	%	N	%	N	%	N	%
1.	There is a need for teachers to implement a blended learning as an emerging teaching approach post Covid -19	0	0	2	6.7	4	13.3	11	36.7	13	43.3
2.	I perform better with blended learning	0	0	3	10	5	16.7	13	43.3	9	30
3.	Blended learning is more tedious	16	53.3	10	33.3	4	13.3	0	0	0	0
4.	I am in favor of blended learning next semester	0	0	1	3.3	2	6.7	11	36.7	16	53.3
5.	I hope to have more training on how to implement blended learning effectively	0	0	0	0	2	6.7	12	40	17	56.7

It has been indicated in [Table 3](#) that most of the participants felt "to a great extent" for item 5 (56.7%) and item 4 (53.3 %). Interestingly, most participants felt "not at all" for item 3 (53.3%). This indicates that blended learning is a learning approach that potentially creates fun, enjoyable, and student-centered learning and enhances learning effectiveness. The interview participants elaborate on blended learning implementation by stating that online components can supplement the classroom despite some drawbacks. The next quotation reflects the participants' opinions. I find supplementary online learning materials and/or information useful. However, I think it really needs to be adjusted to the conditions where and when it can be done. For me, online learning cannot replace classroom contact and direct arguments from students. I agree that additional information and learning materials presented online will be very useful, including links to additional reading and so on. I think that is great, but it cannot replace the classical learning experience in the classroom. I am not ready to accept that computer-based learning and interaction replace items in the classroom when it makes learning more effective (Int. T.1).

However, the study's participants emphasize the significance of having the flexibility to use online components to develop various learning styles and strategies. They made the case that traditional lectures take place at a set pace, which can be too quick for students who are reluctant to ask questions. Furthermore, not all topics may be fully covered in class. In addition to extending the instruction in the classroom, the online setting offers much flexibility for supplemental teaching notes and writing student question responses. After taking this facility into account, they decided to spend time and energy creating a course that fully integrated both classroom and online components. The findings from this study confirm the results from previous studies investigating students' satisfaction concerning blended learning. The prior study's findings support the notion that blended learning can provide greater satisfaction for learners than traditional lecture-based learning and online instruction methods ([Feitosa de Moura et al., 2021](#); [Wang, 2021](#)). Notably, the participants informed that the learning approach and strategy in UT, in many opportunities, embark on blended learning as the instruction method. They illustrated the teaching and learning process that takes place in the graduate program at UT, which includes the combination of synchronous face-to-face instructional webinars and asynchronous discussion forums.

Interestingly, four interview participants emphasized the effectiveness of blended learning, which provides students with a wider variety of features that improve learning beyond what is possible with just online or classical modes. They claimed that the blended mode enhanced students' understanding of technology literacy and motivation in learning using technology integration. They further elaborated that blended teaching enables them to implement a learning approach that is more appealing to the children of this generation. Educators should practice with and alter particular classroom routines and organizational structures in their blended learning classes to make the model run effectively in certain situations. To meet their pedagogical objectives, teachers should also showcase their own talents for classroom designs in blended learning ([Bouilheres et al., 2020](#)). The study findings support [Feitosa de Moura et al.'s](#) (2021) study findings that a mixed environment may provide experiences not offered in non-blended contexts, and it is believed that the nature of the many experiences offered in a blended environment would encourage learning. Similarly, [Bouilheres et al.](#) (2020) and [Cleveland-Innes et al.](#) (2009) found that the widespread use of Web sources and other Internet technologies in education has exploded lately. An increasing focus of this trend is blended learning, a mixture of virtual learning modes with a classical classroom environment. This is also in line with the popularity of using

blended learning post-COVID-19, called the 'new normal' in higher education teaching (Cronje, 2020). In this technologically oriented learning approach, blended learning environments that include physical and virtual components are considered key tactics for educational institutions (Kumar et al., 2021).

Despite some benefits of the use of blended learning, the participants also mentioned some aspects that need to be considered. These aspects involve teachers' and students' readiness regarding skills and technology devices and educational institutional support. Vallee et al. (2020) already warned that although there is proof that blended learning has potential, there is also a significant amount of proof that most blended learning courses fall short of that potential. That failure can be partially attributed to one of the educators' well-documented opposition to online learning. Basilaia and Kvalvadze (2020) and Jaggars (2014) further stated that employing virtual learning as professional teaching could be ineffective unless consideration was given to two factors: the additional time required for learning networking and the adjustment period for those unfamiliar with e-learning. Educators seem to have less opportunity to design an effective mixed-learning environment if they do not understand the advantages of online learning. A student's lack of interest in or reaction to poorly made online components in a blended learning environment could confirm the teacher's perception that the additions to the regular classroom are of limited use.

CONCLUSION

The PLC learning process has a major effect on educators' abilities, particularly their pedagogy, curriculum, and technology expertise. The study's findings indicate that teachers' participation in PLC activities is associated with improved proficiency in using technology in the classroom. PLCs are also seen as crucial for improving school quality. Furthermore, the development of blended learning has become an important trend in the contemporary education sector. This movement is being propelled by the expanding amount of evidence showing that a mixed approach is preferable to an online or classroom-only one. However, if educators do not alter their views and actions to provide varied experiences, courses with blended learning risk falling well short of the promise. Educators seldom exploit online settings to their full potential or mix the two to create unified courses for their students. More studies must be done to determine the particular factors that influence the connection between instructional approach, instructor familiarity with technology, and student outcomes. Another potential future research topic is examining the effects of teachers' technology expertise and blended learning on students' academic achievement. These suggestions would further knowledge of the effects of instructional approaches and strategies and technological literacy beyond the detection of significant change.

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