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Exploring Beginning Teachers' Engagement in Webinars for Professional Development

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Abstract. Beginning teachers face substantial hurdles while transitioning from pre-service to professional teaching. They need support to grow and stay in the profession. The focus of this study was the usefulness of webinars as a tool for beginning teachers' continuing professional development. This study used a mixed-method research design, combining quantitative and qualitative approaches, to thoroughly understand beginning teachers' participation in webinars for professional development. An online survey was conducted to determine teachers' thoughts on webinar quality, engagement, and challenges. There were 1380 beginning teachers who completed the survey. Additionally, a semi-structured interview technique was used to gain further information from 30 selected teachers about their webinar engagement. The survey results were analyzed quantitatively using simple percentages and the qualitative data were subjected to thematic analysis. It was found that the webinar is a valuable tool in providing targeted professional development opportunities for beginning teachers, offering expert knowledge, practical strategies, and a platform for networking. Through their participation in webinars, beginning teachers have improved their teaching and classroom management skills, making them confident to teach their students. Nevertheless, obstacles such as technical problems, the need to multitask, and the lack of interaction during online sessions were identified as challenges in their complete participation. Institutions can consider adding interactive aspects to webinars and offer dependable technology assistance to maximize participation. Furthermore, providing asynchronous options can aid in meeting the varied schedules of

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beginning teachers, allowing them to pursue continuing professional development.

Keywords: beginning teachers' engagement; continuing professional development; pre-service teachers; teacher quality; webinars

1. Introduction

The transition from pre-service teacher to professional teacher may be challenging for beginning educators. Although their undergraduate degree programs have laid down the foundational knowledge and skills, some experiences can only be learned inside the classroom. For beginning teachers, there is more urgency regarding *what to do* than *why* they should do it (Loughran, 2019). The Philippine Professional Standards for Teachers describes beginning teachers as those teachers who have been in service between zero and three years (Department of Education, 2015). It describes teachers in Career Stage 1 or beginning teachers as teachers who have gained the qualifications required for entry into the teaching profession. Feiman-Nemser (2001) described this stage as a time when teachers transition from preparation to practice. New teachers describe their first three years of teaching as the most challenging years in their profession. They may lack the practical and contextual knowledge to help them in their first few years in the educational system. They may also struggle with juggling multiple responsibilities, such as classroom management, lesson planning, and student advising, all while trying to adapt to their new professional roles. These challenges can be particularly overwhelming in a school environment without support and collaboration. Novice teachers may be left without the necessary resources or mentorship to navigate their early careers successfully (Gan, 2018), leading to overall job dissatisfaction and the failure of teacher retention (Koehler & Kim, 2012). Studies have revealed that 40% to 50% of beginning teachers leave the profession within the first five years of teaching (Borman & Dowling, 2008; Haynes, 2014; Hulme & Wood, 2022). To alleviate the challenge of high attrition rates, the Department of Education in the Philippines has implemented policies that focus on providing support to beginning teachers through teacher induction programs and professional development (PD) opportunities (Olvido et al., 2024). Providing PD activities for teachers, especially during the initial years of teaching, is an important factor in enhancing instruction in schools. According to Belsitio (2016), teacher quality is vital in producing high-quality teaching.

Highlighting the importance of teacher quality as a strong indicator of school success, initiatives have been provided to support teachers in the Philippines. For instance, Republic Act No. 10912, otherwise known as the Continuing Professional Development (CPD) Act of 2016 (Republic of the Philippines, 2016), aims to strengthen and sustain the career advancement and development of all professionals. CPD activities refer to the learning opportunities that professionals are engaged with after earning their professional license. This requires educators in the country to be adept with current developments in education. Although several factors contribute to student success, teachers' CPD is a vital component of this endeavor. The Department of Education in the Philippines has pushed for improving the quality of teaching and learning outcomes through reforms in the

curriculum and teachers' CPD, among other initiatives (Olvido et al., 2024). While teachers' competence is a product of so many undertakings related to personal and professional preparation and experiences, active participation in CPD programs and activities ensures the updating and strengthening of teachers' competence (Dayagbil & Alda, 2024). Smith (2016) purports that the advancement of appropriate PD opportunities for teachers in the rapidly evolving technological landscape is crucial for improving teaching methods, teacher effectiveness, and student success.

Moreover, as teacher support has an effect on teachers' performance (Kuriloff et al., 2019), the Department of Education and school administrators approach acclimating beginning teachers through varied methods. As such, beginning teachers are mandated to complete their induction program, which includes a series of orientations and trainings. Furthermore, the attendance of localized in-service training (INSET), virtual in-service training (VINSET), and School Learning Action Cell (SLAC) has provided opportunities for beginning teachers to listen to the classroom experiences of tenured teachers, share their encounters, seek advice, adopt best classroom practices, and form camaraderie. The importance of these PD activities for teachers is well-established (Darling-Hammond & McLaughlin, 2011; Desimone, 2011). However, finding an appropriate mechanism for delivering effective PD opportunities for beginning teachers may pose challenges of cost, access, and time (Smith, 2016).

There are teacher organizations that support the PD of teachers in the Philippines, one of which is the Philippine Association for Teachers and Educators (PAFTE). PAFTE is a professional organization of teacher educators that assists in improving the quality of teacher education in the country. As a learning community, it provides a support system for beginning teachers through various PD opportunities, such as seminars, conferences, and workshops that tackle the latest trends and best practices in education. PAFTE also fosters a strong learning community where novice teachers can connect with experienced educators for mentorship, enabling them to navigate the challenges of early-career teaching and grow in their professional roles. Gordon and Maxey (2000) suggested that strong mentoring with key pedagogical content and effective PD can help overcome poor-quality teaching. Additionally, PAFTE encourages collaboration and the sharing of resources among its members, helping beginning teachers build a network of support. This community-oriented approach ensures that new educators have access to the guidance, tools, and knowledge they need to effectively navigate in their profession. During and after the Covid-19 pandemic, PAFTE initiated the conduct of free webinars for beginning teachers. A webinar or web seminar is a live event conducted online for the purpose of teaching or training. The shift from onsite to online learning during the pandemic has posed several redirections and redesigning in educational practices (Alda, 2023). One opportunity it brought is leveraging technologies to provide relevant workshops and trainings for teachers. Online PD activities can take multiple forms. PD is conducted through simultaneous in-person and online activity, with some teachers attending online and others onsite, while blended PD is conducted through combining online and in-person, synchronous and/or asynchronous

activity (Bergdahl, 2022; Yurtseven Avci et al., 2020). Webinars play a crucial role in helping early-career teachers adapt to diverse classroom environments and develop the instructional skills required in today's rapidly changing educational landscape (Gan, 2018; Pearson, 2003; Rowan & Townend, 2016).

A significant advantage of webinars as a form of online PD is their flexibility. This flexibility is particularly important for new teachers, who often face the dual pressures of mastering their teaching roles while managing a demanding workload (Gan, 2018). It allows beginning teachers to choose from varied topics offered by different public and private educational institutions. Webinars can also be easily customized to fit the needs of beginning teachers, such as classroom management and strategies for student engagement. Access to these webinars is a click away and teachers can attend from anywhere. As a CPD strategy, the webinar is suitable for beginning teachers since it allows them to participate in trainings or conferences without leaving their classroom. Teachers also save time and cost as they do not need to travel. Considering that beginning teachers have recently graduated and most of them are not employed yet, the webinar is a popular option since they do not have to spend on transportation and accommodation expenses. Moreover, some webinars are offered for free, so beginning teachers do not have to spend anything on registration. Most of these webinars also allow beginning teachers to engage in learning at their own pace, making it easier to fit PD into their busy schedules and personal commitments. Moreover, the interactive nature of webinars fosters a sense of community among participants, offering opportunities for networking and the sharing of experiences. For teachers working in under-resourced or isolated schools, these connections can be particularly valuable, as they offer a broader array of perspectives and teaching strategies that might otherwise be inaccessible (Community for Advancing Discovery Research in Education, 2017; Vu et al., 2014).

Consequently, webinars can offer potential long-term professional growth as teachers can establish online learning communities. These communities can provide ongoing support and collaboration opportunities even after a single webinar session. Nganga and Kamutu (2024) highlighted that community-based learning is largely used to improve teacher practices. Community-based PD has demonstrated advantages over individual-based training in terms of generating real improvements in practice (Ellis & Bochner, 2000). Beginning teachers who are technology savvy prefer engaging in webinars and acquiring the necessary competencies in the comfort of their homes.

Since webinars have emerged as a popular modality for trainings and capacity building, there is a need to gather research-based evidence on the use of webinars as tool in the conduct of PD. Thus, this study contributes to the scant literature on webinars as tools in the CPD of beginning teachers. This research further examines how beginning teachers engage in webinars for PD, focusing on the relevance of the content, participant satisfaction, and the long-term impact on their professional growth and development.

1.1 Statement of the Problem

The study aimed to explore beginning teachers' engagement in webinars for PD. It further identified the challenges in webinar participation, including strategies to enhance participants' engagement. Specifically, it aimed to answer the following questions:

1. How relevant are the contents/topics of webinar sessions to beginning teachers' professional responsibilities?
2. What aspects of the webinar contribute to participants' overall satisfaction?
3. What barriers or challenges do participants encounter in their participation in webinars?
4. What strategies can be implemented to mitigate the aforementioned challenges?
5. How do participants perceive the long-term impact of their participation in webinars on their professional growth and development?

2. Methodology

2.1 Research Design and Participants

This study used a mixed-methods research design, combining both quantitative and qualitative approaches, to provide a thorough understanding of beginning teachers' participation in webinars for PD and how these efforts align with the United Nations' Sustainable Development Goal (SDG) 4: Quality Education. The research instruments were evaluated and validated by a team of experts in teacher education. The questionnaire was verified to determine if it reflected the intended responses to gather the data required for this study (Boholano et al., 2021). To determine teachers' thoughts on webinar quality, engagement, and problems, an online survey was created. In all, 1380 beginning teachers from different areas in the Philippines completed the survey. The survey data were analyzed using descriptive statistics to summarize engagement patterns and the perceived value of webinars. On the other hand, qualitative data were collected from interviews with 30 beginning teachers based on the identified inclusion criteria. In the Philippine Professional Standards for Teachers, beginning teachers are identified as those teachers (Teacher I) with zero to three years of service (Olvido et al., 2024). The interview transcripts were prepared and thematic analysis was conducted to provide a robust discussion of the teachers' experiences and engagement in webinars.

2.2 Ethical Considerations

Participants were made aware that this study was completely voluntary and that they would be free to withdraw without facing any repercussions at any point during the research process. Participants were provided with an informed consent form outlining the goals of the research, the specifics of their participation, how data would be used, and any possible risks or advantages. It was explicitly stated on the form that no sensitive or personal information would be shared without consent. To guarantee that participants completely understood the goal and methods of the research, the consent form was written in plain, intelligible language. All personal identifiers (such as names, school affiliation, and geographical location) were removed from the data throughout analysis and

reporting in order to safeguard the anonymity of the participants. To ensure participant confidentiality, coded identities were provided. The encrypted devices or servers on which the data, both quantitative and qualitative, were stored were only accessible to the study team.

3. Results and Discussion

Teacher preparation and development are key elements in honing effective educators (Darling-Hammond et al., 2017). Research has consistently revealed the need for PD that is tailored to the needs of beginning teachers. The webinar emerged as an innovative tool for PD during and after the pandemic. The beginning teachers believed that the webinar topics were very useful in enhancing their ability to teach effectively. The survey results indicate that the participating teachers rated the webinars as meeting expectations at an above-average level using a 5-point Likert scale.

3.1 Relevance of Webinar Topics

Table 1 shows the webinar topics identified by questionnaire respondents as relevant in effectively preparing them for their responsibilities.

Table 1: Webinar topics

Content/Topic	%	Rank
1. Learning through humanistic education	13%	3
2. Action research	14%	2
3. Classroom management	14.5%	1
4. School forms and learning information system	12.5%	4
5. Teaching strategies	10%	5
6. Communication skills	8.4%	7
7. Technology integration	6%	9
8. Assessment and evaluation	7%	8
9. The teacher as a professional	9.6%	6
10. Values education	5%	10

The respondents identified classroom management as very important in carrying out their lessons successfully. They were more involved in webinars that focused on their everyday challenges, such as classroom management and student engagement techniques. These topics offered practical advice that educators could instantly implement in their classrooms. The inputs in the webinar sessions gave the teachers practical tips for handling student discipline and classroom misbehavior. One of the beginning teachers confirmed this in their interview: *“As a new teacher, I am scared to face my class and I don’t know how to get their attention. The topic on classroom management gave me the confidence to face my class”* (P4). Another relevant topic was the conduct of action research. One beginning teacher confirmed that she needed to conduct action research to make sense of all the challenges in the classroom: *“I was overwhelmed with problems of non-readers and absenteeism. So, I needed to know the solutions by conducting action research”* (P6).

Although action research is emphasized in the curriculum in the undergraduate programs, the beginning teachers still believed that they needed to learn more about action research. Other relevant topics identified by the respondents were humanistic education, filling in of forms, and teaching strategies. Webinars offer a broader array of perspectives and teaching strategies that might otherwise be inaccessible (Community for Advancing Discovery Research in Education, 2017; Vu et al., 2014). Moreover, the beginning teachers also found the topic of communication skills very valuable: *“Being able to communicate clearly with fewer grammatical errors would enable my students to understand the lesson, which would lead to effective learning”* (P4). Some other webinar topics that the beginning teachers found relevant included technology integration, the teacher as a professional, assessment, and values education. Rowan and Townend (2016) opined that webinars can also be customized to focus on the practical issues that beginning teachers encounter, making the content more relevant and immediately applicable in their classrooms.

3.2 Factors Contributing to Teacher Satisfaction in Webinars

The respondents indicated the webinar aspects that contributed to their overall satisfaction. Table 2 shows the factors identified.

Table 2: Factors contributing to teacher satisfaction in webinars

Factor	Rank
Speaker	2
Frequency	4
Content	1
Duration	7
Moderator	5
Question-and-answer/ open forum	6
Session activities	3

The content or topic of the webinar was the most important factor that contributed to the overall satisfaction of the respondents. The beginning teachers said that content was their primary consideration in attending webinars, with the end goal of improving their competencies as beginning teachers. Topics that responded to the needs of beginning teachers were preferred, such as how to teach a certain subject in the curriculum: *“I am not so confident teaching biology, and chemistry using the spiral progression, as my knowledge is limited. My attendance in webinars helped”* (P10). The participants were highly engaged if topics were relevant and useful in their teaching. Another factor that contributed to the satisfaction of the participants in webinars was the speaker. Beginning teachers attended webinars to learn from experts. Since webinars lack face-to-face interaction, the speaker has to be an expert in both content and pedagogy. They should use effective strategies to engage the online audience. Moreover, the speaker should be an expert in the field to ensure the achievement of the expected outcomes of the webinar. The speaker’s competence is one of the most significant predictors of audience

satisfaction, as it reassures participants that they are receiving high-quality, reliable information (Bacus & Alda, 2023).

Session activities were also considered important to facilitate enriching engagement during webinars. Engaging activities that involved critical thinking were preferred by the beginning teachers. Although the participation was purely online, the beginning teachers still preferred activities that entailed them engaging with each other and sharing experiences. Other aspects of the webinar that contributed to the participants' satisfaction were the frequency of the session, the moderator, and the question-and-answer session after the webinar. The questions and answers facilitated deeper understanding and engagement among the webinar attendees.

While webinars are very accessible, scalable, and cost-effective, they do not provide the depth of support and personalization that mentoring and peer observations can offer. Future CPD programs may combine webinars with other methods to leverage their strengths in creating a comprehensive PD experience for beginning teachers. For example, webinars can introduce foundational concepts, while mentoring and peer observations provide opportunities for deeper application and collaboration. This blended approach may enhance the benefits of each method and deal with the varied needs of early-career educators.

3.3 Barriers and Challenges to Online Professional Development Participation

The goal of CPD is to enhance and promote professional competence that will eventually benefit the teachers' main clientele – the students. Thus, even with the challenges during the pandemic, PD activities continued in the form of e-learning opportunities through webinars. Findings of previous research indicate the advantages of online platforms – cost-effectiveness, timesaving, and accessibility of resources anytime and anywhere (Dayagbil & Alda, 2024; Harerimana et al., 2024), making online CPD opportunities well-received by teachers. However, participants in this study also noted some barriers and challenges, which include *technical and connectivity issues, physical and psychological noise, scheduling conflicts and multitasking, and engagement and interaction limitations.*

3.3.1 Technical and connectivity issues

School administrators can provide support to beginning teachers by understanding the elements that encourage or demotivate teachers to participate in PD activities. Dayagbil and Alda (2024) mentioned that a poor ICT background becomes a demotivating factor for teachers to participate in PD activities. This is also supported by the interview narratives of the majority of the participating beginning teachers. They said:

“I have difficulty using MS Teams and the link was difficult to access.”
(P5)

“For me, slow Internet connections, computer glitches, and other technical difficulties can make it frustrating to fully participate in the webinar.”
(P12)

“Intermittent connection due to my geographical location.” (P15)

"I have difficulty adjusting the audio, plus the Internet is very slow."
(P20)

"Usually, when I join webinars and I'm at home, I cannot ask someone if I have problems with my connection or how to connect to the platform. Sometimes, I do not also know what to press or click." (P25)

Initially, teachers expressed that they were not proficient in using digital platforms (Alda et al., 2022). Because of the sudden shift to online undertakings due to the pandemic, pedagogical mobility became inevitable for teachers, who are pushed to make paradigm shifts. Moreover, a few of the beginning teacher participants shared that they were also assigned to marginalized locations, that is, rural and township schools, that have limited access to the Internet. Many of these schools were not even able to implement online classes due to connectivity problems and lack of access to and training in technological devices. Many educators, especially those in underprivileged areas, encountered difficulties in accessing online PD (Warschauer & Matuchniak, 2010) because of unreliable Internet, expensive devices, and data limitations. The shift to remote learning has highlighted inequalities in PD, as teachers were often responsible for covering the high costs associated with participating in online training (Eze et al., 2021). While the majority of the participants (50.7%) in the study by Mukamana et al. (2024) expressed that the CPD e-learning platforms were easy to use, indicating a positive perception of its usability, a significant proportion (22.1%) disagreed on its ease of use. A considerable percentage (43.6%) required assistance while using the e-learning platforms during their CPD engagements. It is also worth noting that the most saturated response regarding the barriers and challenges experienced by participants during webinars is their online connectivity.

3.3.2 Physical and psychological noise

Noise has been considered an environmental stressor. Exposure to excessive noise, which can be psychological or physical, may decrease performance. Becker et al. (1995) explained that noise can increase mental workload. These "noises" affect one's cognitive, motivational, and emotional functioning. The individual's task performance when in noisy environments depends on their ability to cope with the noise and their cognitive resources. In the context of this study, these noises impeded the learning process and hindered the full engagement of the beginning teachers. Physical noise, such as background and environmental sounds, can disrupt the virtual learning environment and create distractions that make it difficult for beginning teachers to focus on the content presented.

"Sometimes, I could not hear properly because the place where I am staying is too noisy. The noise of vehicles and even kids outside shouting really disrupts me." (P3)

"Our school does not have fast Internet connection so I join webinars at home. Sometimes, my siblings are very noisy and it disrupts me." (P5)

"My neighbors are too noisy. Sometimes, they have singing karaoke, sometimes loud laughs, and honestly, it's just very irritating." (P11)

"When I'm at home, I can't concentrate because there's just too much noise. I need a space for myself so that I can really concentrate and listen to the talks." (P14)

Psychological noise, on the other hand, refers to internal distractions and emotional challenges that can arise while the teacher is attending the webinar. Some teachers expressed that while they feel comfortable at home, they also feel isolated, anxious, and less motivated. This is due to the absence of face-to-face interaction and the perceived loss of the social aspects of learning (Marcial et al., 2015; Utami et al., 2022).

"It is difficult to concentrate most of the time if I am at home since I have a lot of things going on in my mind. It is difficult to separate concerns at home and at work if you are at your house." (P14)

"Sometimes, my mind wanders off while listening to the speakers. Since there are no interactions and I will not be called, my mind just wanders off to other concerns." (P18)

"Hmmm, sometimes, you can relate to what the speakers are saying, but there's no one you can talk to. So, I can't help that I daydream and think of those experiences." (P21)

"It's difficult to focus on the sharing of the speakers." (P25)

The beginning teachers shared that face-to-face interactions, especially for novices like them, are important as they need to feel supported. They need to be able to interact with those who have been in the profession for a long time, and they need to hear the stories of those who are new like them. Moreover, the transition from face-to-face activities to a completely digital learning environment can also be overwhelming for some beginning teachers, which can lead to frustration and disengagement. It is also pointed out that auditory irritation, which refers to the feeling of indignation, dissatisfaction, and unhappiness, can occur as a result of "disorders" in one's thoughts, feelings, and daily activities (Passchier-Vermeer & Passchier, 2000).

3.3.3 Scheduling conflicts and multitasking

The effective implementation of virtual PD initiatives may be challenged by scheduling conflicts and multitasking, as expressed by the participants. One important factor that contributes to this challenge is the nature of webinars, which can place significant demands on the participants' ability to self-regulate (Kahn et al., 2017). Likewise, Little and Housand (2011) suggested that while webinars have interactive features such as blended live and online components, the effectiveness of these activities is often contingent on factors such as coherence with the curriculum, active engagement from participants, and sustained attention over time. The participating beginning teachers shared that they sometimes struggle to carve out dedicated time amidst the competing demands of both their personal responsibilities and workload. This can result in reduced

commitment to these PD activities as they find their attention and energy diverted to other priorities.

"Sometimes, I just join webinars for the CPD and I did not learn that much because I am also doing other tasks. Meetings are also scheduled the same as the webinars I attend." (P4)

"Like when I attended this 3rd webinar and then I have also to run an errand for our school. It was scheduled the same day and the principal just said it's okay, anyway, I can just join the meeting link while I also have to run an errand for the school. Really, it was difficult to answer the evaluation since I did not learn a thing." (P13)

Meanwhile, multitasking can also hinder the effectiveness of online PD opportunities. The participants expressed that, sometimes, it cannot be avoided that while attending webinars, they also find themselves juggling multiple tasks:

"While at home, I listen to webinars and at the same time complete my PowerPoint presentations for my class. It saves time." (P1)

"It cannot be avoided that we do other tasks while our laptops are on. I'm a single mom, so while at home, there are also so many things to do." (P7)

"I guess everyone is doing it, ma'am, doing other equally important tasks while also listening to the speakers. Although, sometimes, I can really say that I have not learned enough because of this." (P15)

According to Kahn et al. (2017), there is evidence in literature that suggests that self-regulation challenges in online learning environments can cause lower levels of engagement and participation. This is because teachers may find it difficult to maintain focus and balance competing demands on their time and cognitive resources.

3.3.4 Engagement and interaction limitations

The beginning teachers expressed that the webinars they have joined have increased their awareness, knowledge, and understanding of various contents and contexts. These PD initiatives have helped them face the abrupt changes in education due to the pandemic. However, they also shared that webinars also posed limitations, especially in content engagement and interaction. The limitations brought by the pure online modality may have prevented them from being engaged in meaningful discussions, working with peers and co-teachers, sharing insights, and receiving prompt feedback (Alda, 2023). Additionally, the lack of human connection through virtual formats was a significant barrier to promoting active participation and collaborative learning.

"I still prefer face-to-face. During webinars, there is no interaction with the audience. Sometimes, the questions you post in the chatbox for the speakers are not also answered." (P7)

"It's sometimes difficult because, like me, I really love to share my insights, but webinars limit us to share and interact with our co-participants. It's always one-way communication." (P20)

“One thing is that there is limited to no communication between the participants during webinars compared to face-to-face.” (P28)

While online platforms offer new opportunities for PD, these have also revealed limitations in fostering meaningful and engaging learning experiences. This underscores the need to explore more innovative ways to design and deliver online professional activities that can effectively address the challenges in content engagement and interaction (Brianza et al., 2024; Ethridge et al., 2024; Ulla & Perales, 2022).

Although technical difficulties and minimal interaction were widely acknowledged as major obstacles, their effects differed between various webinars and had important consequences for teacher participation. The obstacles of technical difficulties and insufficient interaction greatly affected teacher participation in webinars, with some sessions being more impacted than others. An active strategy that emphasizes strong technical support and engaging design can alleviate these issues and enhance overall satisfaction and educational results.

3.4 Strategies to Mitigate the Barriers and Challenges

While the beginning teachers expressed the challenges they face in participating in online PD opportunities like that provided by PAFTE, they also proposed strategies that they thought could mitigate these barriers and challenges. Institutions can tackle technical and engagement issues in webinars by utilizing improved infrastructure, thoughtfully organized interaction, and ongoing enhancement techniques. Incorporating interactive features such as live polls, breakout rooms, and group activities, along with strong technical assistance, can enhance the effectiveness, inclusivity, and engagement of webinars for educators. The barriers and challenges identified in the previous section may be addressed with the following strategies identified by participants: *providing access to reliable technology and support, creating an optimal learning environment, offering flexible scheduling and synchronous options, and incorporating interactive and collaborative elements.*

3.4.1 Providing access to reliable technology and support

The beginning teachers believed that they needed to feel supported in their first three years of teaching. Along with technical and connectivity issues, schools can help them by offering ICT support and mentoring. Alda et al. (2022) highlighted that a one-time ICT training may fall short as compared to a mentoring program that provides consistent support, especially for beginning teachers. Tech-mentoring programs may be included in the Department of Education’s Induction Program for Beginning Teachers (IPBT) and Learning Action Cell (LAC) sessions.

“We will benefit from continuous ICT trainings. This will help so that we won’t panic when we can’t find the link to the webinar, or when the audio has problems, we can troubleshoot.” (P15)

Moreover, provision for reliable devices such as laptops, tablets, and portable Wi-Fi can help these teachers as well.

“Like myself, when I started my first year in school, I only had a cellphone with me. I noticed that there are tablets provided in the ICT lab. It would

also be nice if teachers could borrow in the meantime. This can help us while waiting to receive our first salary to buy a laptop.” (P5)

Encouraging the use of offline materials or downloadable content can also help when connectivity issues arise. PAFTE and other institutions offering PD initiatives through webinars may also designate tech support or even provide troubleshooting guides during the webinar to ensure that the participants feel supported. These mechanisms can help minimize technical disruptions and, at the same time, empower teachers to find ways to address technical problems themselves, thereby enhancing the learning experience (Adedoyin & Soykan, 2020).

3.4.2 Creating an optimal learning environment

In any context, the learning environment plays an important role in the assimilation of input. The beginning teacher participants shared their challenges in terms of their “learning spaces” when attending webinars. They acknowledged that to maximize their participation in these undertakings, they have to find a way to establish quiet and comfortable spaces free from distractions to improve their focus and engagement.

“When attending webinars, I really need to find a place where I can concentrate. Maybe I will also treat it as if I am attending a face-to-face session, so I need to be somewhere other than my house or near my neighborhood.” (P11)

Furthermore, PAFTE and other webinar providers may also incorporate mental health strategies, such as mindfulness or stress management techniques, which can help reduce psychological noise.

“One time, PAFTE also invited a speaker to talk about mental health. It was the first session before the more heavy content of the day. I think it also helped.” (P15)

“I think in between breaks and energizers can also help us stop our head from wandering somewhere. I think it helps us focus also because long talks online are really tiresome. Breaks in between talks can also help.” (P18).

In addition, research has suggested that short or micro-breaks during lengthy sessions help to alleviate cognitive fatigue, thus promoting sustained attention and learning (Albulescu et al., 2022). Educational institutions can offer advice on establishing these “noise-free” environments, ultimately enhancing outcomes for both educators and learners.

3.4.3 Offering flexible scheduling and asynchronous options

Flexible scheduling options such as offering multiple session times or recorded versions of live sessions may help address the challenge of time constraints. The importance of flexibility in online learning environments is well-documented, particularly in fostering greater inclusivity (Hodges et al., 2020).

“Aside from making time to attend webinars despite a hectic teaching schedule, hopefully, we will also be given access to recording for free,

especially if the webinars are scheduled at inconvenient times or if we have problems with our Internet connection.” (P2)

“If it’s possible, can we request access to recordings or materials?” (P8)

Asynchronous learning options, such as pre-recorded videos and forums for discussion, allow participants to engage with the content at their own pace, which helps reduce the stress associated with attending live sessions. Providing this flexibility enhances both engagement and retention of information by accommodating diverse learning needs and schedules (Bozkurt et al., 2020).

3.4.4 Incorporating interactive and collaborative elements

As pointed out by the beginning teachers, engagement in online PD activities or webinars is often hindered by a lack of interaction. They recommended incorporating interactive elements during the webinar and that the webinar be not only a pure lecture without opportunities for the participants to interact or collaborate. These interactive elements in online activities can be personalized by the organizers or resource speakers themselves through the use of breakout rooms, polls, and collaborative tools such as Padlet, Jamboard, and Google Docs.

“There are certain topics that I feel I need to interact. Like in our students during online classes, there are also topics that would become more effective if the teacher would use collaborative tools or polls. Like the speakers can use polls if they have questions for the participants or encourage the use of the chatbox.” (P9)

“Some webinars I have attended made use of breakout rooms. I guess it’s effective, especially in checking if we are still there and listening.” (P23)

“I appreciate if I can also interact with new teacher ... so that I would also know if we have the same experience and how they cope.” (P27)

Interactivity fosters active participation, collaboration, and a sense of community. It is important to ensure that learning outcomes during webinars or online PD activities and programs are attained. Moreover, gamification techniques, such as quick quizzes, polls, or rewards for active participation, also enhance motivation and create a more dynamic learning environment (Alda et al., 2022; Deterding et al., 2011). Facilitating peer-to-peer discussions and reflection exercises allows participants to apply the content in meaningful ways, promoting both understanding and collaboration. While the benefits of leveraging interactive and collaborative tools in online webinars are well-documented, facilitators or resource speakers should carefully design these elements to maximize their effectiveness.

3.5 Perceived Long-Term Impact of Professional Development Participation

The overall feedback of the participants suggests that webinars have a major and beneficial effect on their PD, affording them the abilities, know-how, and self-assurance they need to improve their teaching practices and further their careers. Integrating webinars with mentoring and peer observations has profound implications for PD in education. It ensures that knowledge dissemination is more

effective, application is practical, and growth for the teacher is sustained. The implications need to be used by institutions and policymakers to create CPD programs that are not only impactful but also sustainable to develop a generation of competent, confident, and collaborative educators. Below are the overarching themes on the long-term impact of webinars as perceived by the participating beginning teachers.

3.5.1 Enhanced professional skills

Face-to-face seminars and other workshops have been superseded by webinars. Webinars enable individuals to collaborate in an online learning environment and exchange knowledge via the Internet (Tarusan et al., 2022). The teacher participants emphasized that taking part in webinars really enhanced their capacity to teach and manage a classroom. Through the webinars, they were able to learn new methods and resources that improved their capacity to use technology in the classroom, differentiate education, and engage learners. As they use these recently learned abilities in their day-to-day instruction, their professional competence gradually increases. Below are the narratives of the participants in this regard:

“Yes, because it helps me understand the important things to do as a fresh teacher. Indeed, it will help us in the long run since we will always use it inside the classroom.” (P11)

“Yes, it is because all the relevant topics discussed can be utilized by teachers who have trouble in improving themselves personally and professionally. I have learned a lot for my growth and development as a teacher.” (P20)

Webinars have significant effects on teachers’ personal and professional development, particularly in situations where teachers are faced with obstacles to their own personal development. Effective classroom management, accommodating a diverse student body, and bridging the theory-practice divide are challenges that many teachers, especially those just starting in the field, face. For educators who want to advance both personally and professionally, webinars can be a lifesaver. Teachers can learn new topics with the help of webinars. Webinars allow educators to learn about some of the new and current trends and advances they can recognize in their work. Educators must be abreast of the latest advancements in both teaching and learning to ensure that their professional practices remain relevant (Tarusan et al., 2022). Numerous participants stated that they gained useful tactics and methods from webinars that immediately enhanced their ability to instruct. This involves improved lesson planning, classroom management, and instructional tactics catered to various learning styles.

3.5.2 Knowledge expansion

Participants were able to expand their knowledge thanks to webinars. Sharing their newfound understanding of pedagogical theories, creative techniques, and contemporary educational trends has enabled participants to expand their

teaching repertoire and improve student learning. This is noted in the participants' narrations:

"The webinars really helped me, as a new teacher, to learn so much more. By sharing what I've discovered about teaching strategies, creative approaches, and the latest trends in education, I feel like I've gained a lot of new ideas to use in my classroom." (P16)

Webinars help novice educators expand their professional knowledge by giving them access to up-to-date and pertinent information. High-quality PD should give teachers a thorough understanding of their subject matter and pedagogical approaches, as Desimone (2011) argued. Teachers can broaden their knowledge base by exploring current educational trends, innovations, and research through webinars (Darling-Hammond & McLaughlin, 2011). Teachers are better equipped to make educated decisions regarding their lessons and keep up with the continually evolving educational scene because of this enhanced awareness.

3.5.3 Increased confidence

The increase in confidence that educators receive from taking part in webinars is one of the most important long-term effects. Teachers gain confidence in handling difficulties in the classroom and putting best practices into effect when they put the methods and approaches they have learned from webinars into practice. Higher student learning outcomes and higher teacher effectiveness are directly correlated with this confidence.

"One great thing about joining the webinar is that it made me feel more confident as a new teacher. I now feel better prepared to try new techniques, which is so important when you're just starting out in the classroom." (P20)

Gaining more confidence was one of the main long-term effects of taking part in the webinar series for new teachers. Many participants expressed feeling more confident and empowered about their teaching abilities after having attended webinars. Confidence was further bolstered by the encouraging environment the webinars created. Making connections with colleagues, exchanging stories, and creating a support system made new teachers feel less alone and more equipped to handle the difficulties of teaching in their early years (Inal et al., 2023).

3.5.4 Continued learning

Research has shown that participation in webinars serves as a catalyst for professional and continued learning. Participants underscored the need for continuing education for professionals. By encouraging participants to look for further resources and learning opportunities after completing the first series, the webinars promoted a culture of lifelong learning and sustained professional progress.

"Yes, it can be more helpful to the starting teacher career. What I learned in the seminar will help me become a good teacher and overcome the challenges of teaching." (P11)

“Address the importance of support systems, such as mentoring, peer collaboration, and ongoing professional development opportunities.”
(P21)

Research on continuing professional education has mostly concentrated on the effects of its conduct as well as its technical difficulties (Arnilla, 2022). Teachers are frequently motivated to seek out more possibilities for PD through webinars. They see the value of lifelong learning and become more proactive in seeking further training, whether through formal education, additional webinars, or self-directed learning. Their dedication to ongoing PD keeps them abreast of the changing needs of education and feeds their enthusiasm for teaching.

3.5.5 Practical application

Participants indicated that webinars focused on practical applications in addition to imparting theoretical knowledge. They stated that they were able to apply what they had learned in actual classroom environments, which strengthened their comprehension and efficacy as teachers. This is evident in what the participants mentioned:

“I find all the topics relevant, especially for a beginning teacher like me. In the first topic about humanistic education, I believe it aims to nurture each student’s individuality, creativity, and self-expression, preparing them not just academically but as well-rounded, thoughtful individuals, while writing action research, in essence, allows for practical, context-sensitive improvements and fosters a reflective and collaborative approach to problem-solving and professional development. Lastly, accomplishing school forms and learning information systems is also crucial for several reasons.” (P28)

Teachers often view the webinars as quite useful and applicable to their everyday work. Learning can be made more meaningful by implementing the tactics and ideas that are provided directly in the classroom. As a result of the workshops, teachers frequently incorporate new teaching methodologies, evaluation approaches, or classroom management tactics into their routines, which positively impacts student outcomes.

3.5.6 Theme 6: Networking and support

Webinars bring new instructors together in a nurturing community. A network of support that goes beyond the webinars was developed by the participants, who enjoyed the chance to network with colleagues, exchange stories, and promote cooperation and camaraderie in their career pursuits.

“The topics on accomplishing school forms and learning information system. For a beginning teacher, mastering the School and Learning Information System (SLIS) is crucial because it streamlines administrative tasks, such as tracking attendance and grades, allowing more time to focus on teaching. This is very helpful. I was able to network with other teachers from the country. It also facilitates effective communication with parents and colleagues, enhancing collaboration and support for students. Additionally, SLIS provides valuable data that informs instruction and helps in tailoring lessons to meet students’ needs.”

Understanding SLIS is essential for ensuring compliance with school policies and maintaining accurate records, which are vital for legal and ethical responsibilities.” (P30)

According to Li and Krasny (2020), “*professional development programs provide an opportunity for environmental educators to develop networks to exchange ideas and practices in professional learning communities*” (p 337). Teachers can engage with professionals and peers from different educational contexts through webinars. In addition to fostering a feeling of community, these contacts offer professional and emotional support. The companionship among new instructors is beneficial as it lessens the loneliness they could experience in their early teaching career. These webinars frequently result in the formation of a network that offers continuous mentoring and cooperation beyond the meetings.

This study offers a significant insight into how webinars contribute to the PD of novice teachers. Nonetheless, its effect may be enhanced by integrating targeted approaches for boosting webinar efficiency and relating results to wider educational patterns, such as the growth of online learning in teacher preparation.

4. Conclusion and Recommendations

This study aimed to explore beginning teachers’ engagement in webinars as a tool for PD. The research revealed that webinars have become a valuable platform for providing targeted PD opportunities for beginning teachers, offering expert knowledge and practical strategies. Through their participation in webinars, the beginning teachers improved their professional skills, making them confident to teach their students. Participation in webinars enabled them to establish networks of professional learning communities that go beyond the webinar participation. The study underscores the importance of incorporating webinars as tools in the PD of beginning teachers as they are scalable, flexible, and cost-effective. The findings contribute to the growing body of literature on the use of virtual environments for CPD.

However, despite the advantages of webinars as a platform for CPD, findings of the research reveal that the beginning teachers’ engagement in webinars was hindered due to technical and connectivity issues, physical and psychological noise, multitasking and scheduling, and engagement and interaction limitations. For beginning teachers to fully maximize their engagement in webinars, it is recommended that teachers be provided access to reliable technology support, such as strong Internet connectivity. The webinar speakers may incorporate interactive and collaborative elements for increased participation of the online participants. For institutions and training providers that offer PD activities using webinars, asynchronous options that teachers can access anytime at their convenience may also be considered.

Considering some limitations of the study, such as the sampling design that focused on novice teachers only, it is recommended to conduct future research of similar objectives and expand the pool of participants to include teachers in different career stages. Longitudinal studies may be pursued to examine the

impact of webinar-based PD on teaching effectiveness and student outcomes. Moreover, longitudinal studies, format comparisons, cultural investigations, and accessibility research can offer important insights for creating more effective, inclusive, and influential webinars.

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