

A Longitudinal Case Study on Transformational Videoconferencing-Based EFL Teacher Education for Pre-service Teachers' Professional Development

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Abstract

New technologies and digital learning have opened up a wide range of learning possibilities for language learners. Even though traditional, face-to-face foreign language teaching remains predominant, there is a growing interest in teaching foreign languages (especially English as a Foreign Language - EFL) on videoconferencing (VC) platforms such as Zoom and MS Teams. Using the technological affordances of VC platforms effectively requires pedagogical skills. teachers' teaching strategies of VC-based EFL teaching are pivotal in maintaining high-quality online interactions among learners. Effective video-conferencing-based EFL teaching is imperative. Nonetheless, many teacher training programmes worldwide are still lacking, and teachers are not being prepared to implement EFL courses which are effectively VC-based. This study explored two pre-service EFL pre-service teachers' professional development initiatives: The first stage aimed to explore teachers' independent teaching strategies in a five-week practicum where they were encouraged to put the knowledge of VC-based EFL teaching they gained during a teacher training course into practice. The second is exploring the development of teachers' teaching strategies in VC-based, EFL teaching after a year from the practicum. Data were gathered from a series of in-depth, individual interviews and random in-class observations. Findings indicate that teachers' teaching competencies in VC-based EFL teaching have improved thanks to self-regulated professional development and internal motivation strategies offered during the training. By refining teaching approaches together during the training and the practicum, teachers had opportunities to receive and provide peer feedback, guiding their professional development from the training onwards.

Keywords: Professional Development, Teacher Training, Videoconferencing, EFL

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Introduction

One of the persisting challenges that some teacher training courses attempt at facing is how to prepare pre-service teachers to deal effectively with different pedagogical situations without having pre-service teachers revert back to some older (maybe-ineffective) teaching strategies with which they are more familiar (Larsen Freeman, 2005). Teachers' professional development is, therefore, usually considered central to teacher training courses which aim to help pre-service teachers' transform the knowledge they gain through the training course into practice in their usual teaching contexts (Avalos, 2011). In the case of preparing EFL teachers to teach using videoconferencing (VC) tools, the task of teacher training and teacher development becomes vital because teachers have to be able to make informed decisions regarding different pedagogical and technical challenges and features that are specific to the VC-based EFL context which are different to other modes of EFL instruction (Nunneley et al., 2020). Different studies were conducted on the use of VC tools for teacher professional development (Gerona & Bautista, 2022, Hrastinski, 2021, Saleh, 2006), but these studies were either carried out because of the emergency situation of the breakout of the COVID-19 or not designed for teaching EFL wholly through videoconferencing. This study sought to explore the professional development of pre-service teachers involved in a teacher training course designed for VC-based EFL teaching. The study examined the preservice teachers' professional development in two stages. The first stage explored pre-service teachers' teaching professional development in a five-week practicum where they were encouraged to put the knowledge of VC-based EFL teaching they gained during a teacher training course into practice. The second stage explored the professional teachers' development in VC-based EFL teaching a year after the practicum.

Literature Review

Need for Teacher Ddevelopment in VC-Based, EFL Teaching

Training EFL teachers to implement effective, videoconferencing-based, EFL teaching results from careful instructional design and planning and not just the spontaneous use of online tools (Carrillo & Flores, 2020). Research has, however, shown that different teacher training studies were found to be based on general, classroom-based, EFL teacher training and, consequently, teachers in the VC medium had difficulties in providing immediately-applicable insights, and lacked in practice experience and confidence relevant to VC-based EFL teaching (Thomas, 2020). Other studies exploring the training that EFL classroom teachers go through as they start VC-based EFL teaching highlighted that the training goes beyond the required acquisition of ICT skills to acquiring a rather new pedagogical understanding of the affordances of the new VC medium plus an acceptance of new VC teaching roles and identities in that medium (Knipe & Lee, 2002, Quinn, 2011). Such studies emphasise that teacher education programmes should start offering courses particularly designed for VC-based EFL teachers. According to Albrahim (2020), VC-based EFL teacher training course should aim to investigate the skills that are needed for VC-based EFL teachers including: pedagogical skills and their applications in the VC medium; content skills including designing different language learning and assessment activities; design skills, including selecting appropriate online tools and techniques to present any class activities and how to tailor them based on the learning goals of each class; technological skills to provide teachers with enough experience regarding the learning and teaching capabilities and limitations of various online educational tools; class management skills including creating and developing respectful relationships and a sense of community among the learners (even

though they are isolated physically from each other; finally, social and communication skills including facilitating and maintaining interactive discussion and information exchange with learners and among learners in the VC medium. Since teacher training programmes may lack sufficient practice for all these skills, after their initial training to teach VC-based EFL courses, encouraging VC-based, EFL teachers to start an online community and to attend teacher training webinars is vital. Through actively participating in teacher communities and attending teacher training webinars designed for VC-based EFL teaching, teachers can discuss and reflect on their teaching strategies and how they can be improved and modified using different VC features and online tools which will allow teachers to stay up to date and improve their VC-based EFL teaching strategies effectively (Son, 2018). Such an approach encourages VC-based EFL teachers to take a learning-by-doing approach to their professional development (Son, 2018).

Activating Teachers' Sustainable Professional Development

Sustainable teacher professional development refers to teachers' continuous professional development including gaining up-to-date knowledge and understanding of pedagogical practices and applying this knowledge in their lesson plans, curriculum design, teaching methods, and evaluation (Meesuk et al., 2020). Studies have shown that in order to effectively change or enhance teachers' teaching strategies and techniques, teacher training courses should not forcefully change teachers' teaching strategies otherwise teachers' professional development cannot be achieved (Darling-Hammond & Bransford, 2007). On the contrary, an effective teacher training programme aiming for sustainable teachers' professional development should be merely shaping process of teachers' professional autonomy by offering pedagogical insights, practical teaching tasks, activating teachers' critical thinking through allowing pedagogical discussions among teachers, guiding their decision making and giving them opportunities to evaluate their own decisions and form their own conclusions (Liu et al., 2018). Teacher training for VC-based EFL teaching should, therefore, include elements of sustainable professional development including creating teachers' discussion forums and offering opportunities for teachers to analyse and evaluate different learning activities and lesson plans (Isperdon & Selcuk, 2021). No studies have been found exploring teachers' professional development regarding VC-based EFL teaching after a year or more from training and whether VC-based EFL teacher training programmes are able to trigger necessary and sustainable professional development.

Aims of the Study

This paper traces changes in two pre-service VC-based EFL teachers' teaching strategies throughout two stages. The first is the initial training practicum, which focussed on their professional development through self-reflection and pre-service teachers' peer feedback. The second one is after a year of independent, VC-based EFL teaching. Based on the research aims, the following two questions were formulated:

1. How did pre-service EFL teachers perceive their professional development through VC-based teacher training practicum?
2. What VC-based EFL teaching strategies did pre-service teachers develop after a year from the practicum and how did they develop them?

Methodology

Design

As Hamilton and Corbett-Whittier highlighted (2013), case study research investigates in-depth selective cases or instances focussing on increasing the understanding of the case(s) being studied and it may be longitudinal analysing how different aspects regarding the case(s) affect each other(2013). In this current research, a qualitative case study was conducted with two Syrian, pre-service EFL teachers with a two-fold aim of (1) exploring pre-service teachers' professional development throughout a five-week practicum where they were encouraged to put the knowledge of VC-based EFL teaching they gained during a teacher training course into practice independently and, subsequently, (2) exploring the professional development of these pre-service teachers' teaching strategies in VC-based EFL teaching a year after the practicum.

Participants

The study participants were two Syrian EFL pre-service teachers: one female (P1) and one male (P2) . The two prospective EFL teachers voluntarily participated in the teacher training for over two months. Participants were selected from a group of six pre-service EFL teachers who were recruited through random sampling based on their English proficiency (B1 was considered a minimum) and their access to a high speed internet and a laptop/computer. The participants' English proficiency was determined using an online, mobile-based English placement test developed by the British Council - the "*English Score*." The reason for selecting P1 and P2 was their urge to continue this longitudinal research study. They had little to no previous basic EFL teacher training and no VC -based EFL teacher training. They had limited experience teaching English in their local settings. Their EFL teaching strategies were spontaneous and lacked sufficient pedagogical knowledge.

The Context - The Training Course

The training course was designed in two stages by the author of the present study. The first stage took place in 2021 and it was offered for 11 weeks online by a university in Central Europe. The first stage included conducting a five-week training course for VC-based EFL teaching and a five-week practicum with a one-week gap. The training included self-paced, asynchronous learning material offered via Google Classroom and synchronous VC-based sessions via Zoom. VC-based training sessions were held once a week. Every session lasted two and a half hours, which included pre-service teachers discussing the suggested topics and doing mock lessons to teach all four macro skills (reading, writing, listening and speaking) as well as grammar and evaluation.

In the five-week practicum, pre-service teachers were asked to teach independently a group of learners. The practicum started one week after the training because this time-gap allowed participants to find a group of volunteer students and to design their five-week course. Each pre-service teacher independently taught a group of learners who were at the same English language proficiency level. During the practicum, pre-service teachers were encouraged to keep teacher's diaries where they can reflect on the way they were teaching and also to discuss with the other course peers what tools and strategies would work better for teaching different things. The second stage included conducting random observations of P1's and P2's VC-based EFL classes and in-depth interviews a year after their training practicum.

Data Collection

The data, for this study, were gathered in two stages with the informed consent of the participants. Data were collected throughout the first stage from a focus group interview including P1 and P2, teacher diaries and random in-class observations. The online group interview, which lasted for about two hours, used semi-structured questions to examine their perceptions of their professional development through the teacher training practicum for VC-based EFL teaching. P1's and P2's teaching diaries (N=15) were collected using 'Google Form'. Six random, in-class observations happened (using observation checklist in Appendix 2) without giving teachers any prior notice (three observations for each pre-service EFL teacher). Observations took place at the beginning, in the middle, and at the end of the course to check teachers' professional development from one stage to another. In the second stage, a year after the practicum, data were collected using random in-class observations and individual in-depth interviews. A year after the practicum, participating EFL teachers were each invited for an online interview using open-ended interview questions (see Appendix 1 for the interview questions). At the end of the interviews, participating teachers were asked to share web-links and schedules of any VC-based EFL courses they were at that time conducting and the researcher observed two random VC-based EFL classes of the courses the participating teachers shared.

Data Analysis

All collected data (that is, verbatim transcriptions of all group and individual interviews, participating teacher diary entries, and observation notes from each stage) were first transferred to a single Word document. Data concerning P1 and P2 were extracted and analysed for the sake of this present study. The method of thematic analysis was used by the researcher as it is commonly used with qualitative research (Braun & Clarke, 2012). The datasets of each stage were analysed separately through open coding. The open coding analytical method helped the researcher to undertake more detailed coding, clustering and organising the open codes into broader themes that describe the data. Having undertaken a rigorous analysis of three datasets, the researcher presented the findings under two main headings: themes (1) teachers as self-constructivist learners; (2) teachers as self-regulated learners.

Findings

Teachers as Self-Constructivist Learners

While investigating Research Question1 & 2, findings suggested that teachers were able to construct their own VC-based EFL teaching strategies thereby considered as self-constructivist learners.

Table below explains how P1 and P2 showed insights for independent professional development as they developed their own teaching strategies.

(Table 1) Teachers as independent learners (self-constructivist learners)	
Throughout the practicum	After a year from the practicum
Teachers independently taught the four skills using different asynchronous and collaborative tools to supplement the VC medium. Still, they followed specific text books and were hesitant regarding teaching techniques and strategies so they consulted with each other.	Teachers created their own lesson plans and slides and did not stick to a specific curriculum. Teachers used authentic materials and tried to compensate the lack of a social community in the VC medium by creating a lively social community through different social media platforms. Teachers recognised the need to reduce the time for the session to 60-75 minutes maximum. Teachers recognised the need to minimise learning goals in VC-based EFL sessions to reduce learners' fatigue. Teachers realised the need to engage students with real-life language situations that match their needs.

Professional Development Throughout the Practicum

Data taken from teacher diaries of both P1 and P2 showed instances of independent teaching as they explored different synchronous and asynchronous teaching tools and planned how to teach the learning objectives of each class through these tools. For example, P1 mentioned that they had "the lesson plans ready based on the selected textbooks" they needed to teach and they had to "figure out what online tools can be effectively used to implement different tasks trying to teach different skills." Similarly, P2 indicated in his diary that he "had to experiment with different online tools on his own to be able to decide what works best for the lesson plan to be conducted efficiently in the VC mode". Participating teachers' sense of freedom and yet responsibility as they become critical when making choices regarding their own teaching strategies and techniques reflects their self-directed professional development (Hargreaves et al., 2012).

While participating teachers showed instances of self-directed professional development, they still appeared to be not confident enough to create their own activities from scratch based on the learning objectives for each class. Data collected from observation notes showed that P1 and P2 closely adhered to the activities suggested in the textbooks they were using even though some activities were redundant and could be replaced with more efficient ones in terms of the learning objectives in hand. Data taken from group interviews showed, also, that P1 and P2 often consulted with their peers and their trainer when designing lesson plans and how to conduct them via the VC medium because they lacked sufficient experience and needed some affirmation or evaluation of their work. The urge of participating teachers' to

have teacher-teacher consultations plays an important role in teachers' professional development (Blase, 2014).

Professional Development a Year After the Practicum

Data taken from observation notes of classes taking place a year after the practicum showed that P1 and P2 did not stick to a certain textbook anymore. P1 mentioned that they "preferred designing their own lesson plans from scratch based on the learning objectives they set for each session and then delivering the planned tasks classes using slides." Furthermore, data obtained from P1's and P2's observation notes showed that they decided to use authentic materials taken from Youtube videos, Instagram reels, and other online materials rather than customised educational materials suggested by different textbooks. These data were consolidated from similar data taken from P1's and P2's individual interviews as they both suggested that the use of authentic materials can further increase EFL learners' motivation for learning and are easily accessible in the VC mode. P2 suggested "the use of captions available in different online video platforms such as Youtube can aid learners' EFL listening skills and authentic videos can broaden learners' understanding about the target culture. Such sources are free and easily accessible in VC-based EFL classes." These insights were constructed by P1 and P2 based on their own VC-based EFL teaching experience and their motivation to enhance their teaching skills (Ball et al., 2009).

Another shared insight taken from P1's and P's individual interviews is the teachers' need to compensate for the lack of real-life social communication happening outside VC-based EFL classes as learners are usually attending classes from different places. With that concern in mind, data taken from individual interviews suggest that both teachers tried creating informal social media channels using Whatsapp, Facebook, Instagram, or Telegram groups or a combination of different social media groups to facilitate social communication between learners whether in the target language or their native language(s). Data taken P1'S and P2's interviews suggest that social communication and having collaborative tasks between VC-based EFL learners participating in each course is integral in boosting learners' motivation and learning performance and breaks the feeling of isolation that learners mostly feel in the VC context. These perceptions were also constructed by P1 and P2 based on their own VC-based EFL teaching experience.

Data collected from P1's and P2's observation notes and individual interviews showed that both teachers reduced their VC-based EFL class session to 60-75 minutes as they have realised the multiple loads that EFL learners need to endure while taking VC-based EFL classes. These loads include language learning load, technical troubleshooting information load, technical load of maintaining internet connectivity, as well as physical fatigue as learners don't have to move while taking EFL classes the VC mode and learners tend to use their small screen devices to attend classes." Additionally, data taken from random observations of P1's and P2 's VC-based EFL classes showed that they have minimised the number of learning goals to be achieved per session compared with classes conducted during the practicum. Data extracted from P1's and P2's individual interviews showed that both teachers' realised the drastic impact of VC fatigue on EFL learners' motivation and learning performance. P2 suggested in his interview that he had decided to "plan their lesson to have two-three maximum learning objectives per session and to add more game-like learning activities." Such intuitions show signs of P1's and P2's teaching professional development as these intuitions can to a great extent impact their future teaching tactics and strategies (Sipman et al., 2021).

Finally, data elicited from P1's and P2's individual interviews suggest that both EFL teachers realised the importance of creating real-life language situations where learners can use their EFL productive skills which match their learners' current language needs rather than following textbook-based activities that may not be relevant to their needs or interests. According to data taken from P1's and P2's interviews, VC-based EFL courses are usually conducted to a small number of learners; 4-8 learners and, therefore, the design of the course should be more learner-centered to stimulate engagement, inclusivity, and skills development. Similar findings were suggested by (Brown et al., 2008) indicating that VC-based EFL teachers should design the VC-based EFL course and lessons in a way relevant to participating learners to boost learners' motivation and interest. P1's and P2's practice-based discoveries are a sign of both teachers' ongoing improvement and ability to reflect upon, analyse, and learn from their own teaching experiences.

Teachers as Self Regulated Learners

Findings indicate that participating teachers' teaching competencies in VC-based EFL teaching have improved thanks to their urge to go on a self-regulated professional development using different sources of teacher education and pedagogical support available to them.

Table below explains how P1 and P2 showed signs of seeking different teacher education opportunities and pedagogical support throughout the training practicum and also one year later.

(Table 2) Teachers seeking external pedagogical support - self regulated learners	
Throughout the practicum	A year after the practicum
-EFL Teachers depended on other teacher's peer feedback and asked sometimes for their teacher trainers' guidance. -Explored a list given by the teacher trainer of different VC-based EFL teaching plug-ins and tools as well as other synchronous and asynchronous tools to supplement VC-based EFL teaching and checking how they can be used for different learning objectives.	-Teachers attended online teacher training webinars, other university-led teacher education programmes, and regularly read online sources about VC-based EFL teaching strategies. -Regularly checked recently developed online teaching tools that can supplement VC teaching.

Seeking Pedagogical Support Throughout the Practicum

As mentioned earlier, data taken from P1 and P2's group interview suggest that the teachers often consulted with their peers and their trainer when designing lesson plans and learning how to conduct them via the VC medium. P1 and P2 in this stage recognised the need for evaluation of and suggestions from their peers and trainer regarding the activities and lesson plans they were designing. Taking the initiative to seek peer consultation is vital and some pre-service teachers can be overwhelmed by the real teaching environment or might cling to any previous teaching practices they experienced when they were school students, which can hinder their teaching professional development (Nemser, 2003). Similarly, data taken from

P1's and P2's group interview showed that the teachers took initiative in exploring different online tools and how they can be used during their VC-based EFL classes. P1 suggested that "they did not depend on any ready-made lesson plans or activities designed for VC-based EFL teaching. They improvised their own lesson plans using different synchronous and asynchronous tools they experimented with rather than being over dependent on the trainer". Pre-service teachers' active involvement in their own training is vital for their professional development (Xu & George, 2012).

Seeking Pedagogical Support After a Year From the Practicum

Data taken from P1's and P2's individual interviews suggest that both teachers had the motivation to continue their teacher development after the training ended. P2 suggested that they attended "several webinars, online courses and workshops" delivered by the *British Council*, *American English*, *Education First*, *Coursera*, etc. P1's and P2's motivation to stay informed about the latest VC-based EFL teaching practices and online teaching tools has helped the teachers to continue in different informal professional teaching development programmes. According to the data derived from P1's and P2's individual interviews, the nature of the teacher training programme encouraged teachers not to be passive recipients of knowledge and this active role in their own teacher learning continued on after their training. They were also encouraged to take more formal education programmes although their backgrounds were different (English Literature and Linguistics). One of the teachers (P1) joined a *Masters of Education in Advanced Teaching* provided by an American university. The second teacher (P2) started a PhD in *English Language Teaching* in a university in South Asia. Teachers' self-motivation to start consistent university-led education is vital in regulating their professional development (Mikroyannidis et al., 2015).

Conclusion

The study sheds light on professional teacher development of two pre-service teachers directly after the training to teach using VC tools and after a year from the training. The study showed positive results as both preservice teachers were able to develop their own pedagogical strategies and concepts regarding VC-based EFL teaching. This study is, however, small in scope as only two participants volunteered to be part of both stages which lasted for more than a year. Thus, the findings of this research may not be generalisable or apply to other pre-service VC-based EFL teachers taking similar teacher training courses. Furthermore, professional development of the participating pre-service EFL teachers can occur for reasons that may not be related to the teacher training, such as teachers' motivation and other affective factors. Future research can use more robust research design and a larger number of participants and look in more depth for sources of VC-based EFL teachers' professional development.

Appendix 1: Interview questions in stage 2: a year after the practicum

- Have you been doing VC-based EFL teaching so far after a year from the practicum?
- How do you see your VC-based EFL teaching experience after a year from the practicum?
- What has changed about your teaching strategies since the practicum? Why did you make these changes?
- What teaching strategies were introduced in the practicum are you still using after the practicum? Why did you choose to keep using them?
- Did you change anything about the way VC-based EFL classes are organized? How did you change them and why?
- Are you using any different online tools for VC-based EFL teaching compared with the ones you used in the practicum?
- Are there any other aspects that have changed concerning your VC-based EFL courses since the practicum?
- In case there are some changes that you decided to make to your teaching strategies or the way classes are organized, did you improvise and come up with the changes yourself? Or did you use some teacher education materials? Have any of these changes been helpful so far? How?
- In case there are any changes concerning your VC-based EFL courses? What aspects of the training encouraged and guided you towards the changes you made so far?
- Did you depend on other sources of teacher training? Name them if there are any.

Appendix 2: Observation Checklist

Observation Checklist

Teacher's name: _____ Date: _____

Skills the teacher targeted in this class:

<i>Category</i>	<i>Response</i>			<i>Comments</i>
General impressions about the online class	Yes	No	N/A	
Topic(s) discussed in class				
Tools used				
Activities implemented in class				
Challenges the teachers faced				
Reasons for these challenges/ barriers				
Teaching reading online	Yes	No	N/A	
Effective use of pre-reading tasks				
Effective use of while-reading tasks				
Effective use of post-reading tasks				

Students have a clear purpose for reading				
The teacher effectively uses online features and tools (breakout rooms/ chat box, share screen) effectively to facilitate student learning during the reading task				
Teaching listening online				
Effective use of pre-listening tasks				
Effective use of while-listening tasks				
Effective use of post-listening tasks				
Students have a clear purpose for listening				
The teacher effectively uses online features and tools (breakout rooms/ chat box, share screen with audio) effectively to facilitate student learning during the listening task				
Teaching writing online				
Effective use of pre-writing tasks				
Effective use of while-writing tasks				
Effective use of rubrics				
Students have a clear purpose for writing				
Students have a model to follow for writing				

The teacher effectively uses online features and tools (Google Doc/ breakout rooms/ chatbox/ blogger) effectively to facilitate students’ performance while they do the writing task				
Teaching speaking online				
Effective use of pre-speaking tasks				
Effective use of while-speaking tasks				
Effective use of rubrics				
Students have a clear purpose for speaking				
Students have a model to follow for speaking				
The teacher effectively uses online features and tools (Google Doc/ breakout rooms/ chatbox/ blogger) effectively to facilitate students’ performance while they do the speaking task				
Teaching vocabulary and Grammar				
Teacher introduces vocabulary and grammar in context				
Teacher uses both inductive and deductive ways of teaching grammar				
Teacher uses controlled and semi controlled activities to allow students to use the main grammar and vocabulary items introduced in the course				

Teacher uses online features and tools to make grammar and vocabulary practice fun and interactive for students				
Active and Engaged Learning				
Allows students time to process and answer questions				
Creates an interactive learning environment that welcome, challenge, motivate, and support all students				
Creates learning environments that welcome, challenge, and support all students				
Demonstrates effective pedagogies for engaged EFL learning				

Additional Comments:

A. Things that went well for the teacher in the online class:

B. Challenges in this particular online class:

C. Specific suggestions for enhancing this online teaching- learning class:

References

- Albrahim,, F. A. (2020). Online Teaching Skills and Competencies. TOJET: The Turkish Online Journal of Educational Technology, 19(1), 9-20.
- Avalos, B. (2011). Teacher professional development in Teaching and Teacher Education over ten years. *Teaching and Teacher Education*, 27(1).
<https://doi.org/10.1016/j.tate.2010.08.007>
- Ball, D. L., Sleep, L., Boerst, T. A., & Bass, H. (2009). Combining the Development of Practice and the Practice of Development in Teacher Education. *The Elementary School Journal*, 109(5). <https://doi.org/10.1086/596996>
- Blase, J. (2014). *Teachers Bringing Out the Best in Teachers: A Guide to Peer Consultation for Administrators and Teachers*. Skyhorse.
- Braun, V., & Clarke, V. (2012). Thematic analysis. In *APA handbook of research methods in psychology*. American Psychological Association. <https://doi.org/10.1037/13620-004>
- Brown, K. G., Rietz, T. A., & Sugrue, B. (2008). Videoconferencing Class Size, and Learner Characteristics on Training Outcomes. *Wiley Online Library*, 18(1).
<https://doi.org/10.1111/j.1937-8327.2005.tb00326.x>
- Darling-Hammond, L., & Bransford, J. (Eds.). (2007). *Preparing Teachers for a Changing World: What Teachers Should Learn and Be Able to Do*. Wiley.
- Gerona, R. G., & Bautista, S. C. (2022). ICT Skills, E-Supervision Scheme of School Heads, And Teacher Development in Distance Learning Among Selected Private Schools in Cainta. *International Journal of Multidisciplinary Research and analysis*, 5(5).
<https://doi.org/10.47191/ijmra/v5-i5-15>
- Hamilton, L., & Corbett-Whittier, C. (2013). Defining Case Study in Education Research. In *Using Case Study in Education Research*. SAGE Publications.
<https://doi.org/10.4135/9781473913851>
- Hargreaves, E., Berry, R., Lai, Y. C., Leung, ,, & Stobart, G. (2012). Teachers' experiences of autonomy in Continuing Professional Development: Teacher Learning Communities in London and Hong Kong. *An international journal of teachers' professional development*, 17(1). <https://doi.org/10.1080/13664530.2012.748686>
- Hrastinski, S. (2021). Digital tools to support teacher professional development in lesson studies: a systematic literature review. *International Journal for Lesson and Learning Studies*, 10(2).
- Isperdon, L., & Selcuk, H. (2021). he influence of a VC-based training course on pre-service EFL teachers' teaching strategies: A case study of training Syrian pre-service EFL teachers. *Proceedings of IAC 2021 in Vienna*, 1(26).
- Knipe, D., & Lee, M. (2002). The quality of teaching and learning via videoconferencing. <https://doi.org/10.1111/1467-8535.00265>, 33(3)

- Larsen Freeman, D. (2005). Training teachers or educating a teacher. In *Applied linguistics and the preparation of second language teachers Toward a rationale* (pp. 264-274). Georgetown University Press.
- Liu, W., Li, X.-W., & Zou, Y. (2018). The Formation of Teachers' Intrinsic Motivation in Professional Development. *Integrative Psychological and Behavioral Science*, 53, 418–430. <https://doi.org/10.1007/s12124-018-9465-3>
- Meesuk, P., Sramoo, B., & Wongrugsu, A. (2020). Classroom Action Research-based Instruction: The Sustainable Teacher Professional Development Strategy. *Journal of Teacher Education for Sustainability*, 22(1), 98–110. 10.2478/jtes-2020-0008
- Mikroyannidis, A., Connolly, T., Law, E. L., Schmitz, H., Vieritz, H., Nussbaumer, A., Berthold, M., Ullrich, C., & Dhir, A. (2015). Self-regulated learning in formal education: perceptions, challenges and opportunities. *International Journal of Technology Enhanced Learning*, 6(2), 145-163. <https://doi.org/10.1504/IJTEL.2014.066860>
- Nemser, S. F. (2003). What New Teachers Need to Learn. *Educational leadership*, 60(8). <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=28b45ee004c2484db3db188e656b39430458ca27>
- Saleh, S. S. (2006). English as a foreign language: teachers' professional development via the Internet. *Progressio*, 28, 111-126.
- Sipman, G., Martens, R., Thölk, J., & McKenney, S. (2021). Professional development focused on intuition can enhance teacher pedagogical tact. *Teaching and Teacher Education*, 106. <https://doi.org/10.1016/j.tate.2021.103442>
- Son, J.-B. (2018). *Teacher Development in Technology-Enhanced Language Teaching*. Springer International Publishing. <https://doi.org/10.1177/2042753019828218>
- Xu, Y., & George, P. (2012). Fostering Leadership Skills in Pre-Service Teachers. *International Journal of Teaching and Learning in Higher Education*, 24(2), 252-256.