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**Online Teacher Training and Professional Development:
*A Critical Review of Three Empirical Studies***

**Dissertation Submitted in Partial Fulfillment of the Requirements of the Degree
of Master in Didactics of Foreign Languages**

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Declaration

I, Imene Chaiblaine declare hereby that the work provided in this dissertation is the result of my investigation. I declare that all the information that is not original to this work is cited in the References section, and all the data that are original in this work have not been submitted elsewhere for any degree or qualification.

Date:

Signed

Dedication

I wholeheartedly dedicate this humble work to my beloved parents, husband, sisters, brothers, nieces, nephews. My parents, who supported me throughout my academic life. Without their moral, emotional and financial support, this work would not have been made. Thank you for being by my side, watching me walk through the end of my adventure. My husband who has nicely supported me and encouraged me to accomplish this work with a high spirit and self-confidence. My sisters, their children and brothers for their love, trust and faith in me.

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List of Abbreviations

ETPD: Effective Teacher Professional Development

OTPD: Online Teacher Professional Development

PD: Professional Development

TPD: Teacher Professional Development

Abstract

Professional development of teachers is a quite essential part in their career which keeps them learning and improving their competence and knowledge. Ostensibly, with the rapid spread of the pandemic in Algeria since 2020, there was a shift towards implementing online teaching in the academic institutions. However, teachers showed different levels of competence in their teaching via the various online teaching platforms. In essence, this is due to their level of expertise and familiarity with the E-teaching culture in general. It is the aim of this secondary research to cast light on the extent to which online teaching training can improve teacher professional practice and make it more rewarding and fruitful. To do so, this dissertation reviews three articles from different backgrounds and methodological perspectives (Ciampa & Gallagher, 2015; Matzat, 2013; Maher & Prescott, 2017). These contributions emphasized the usefulness of online tools in teacher professional development, yet a number of shortcomings at the practical and methodological levels were also highlighted. The results of these articles share the same view on the effectiveness of teacher professional development and its impact on teachers' knowledge, expertise and skills. However, they do share little consensus on how this should be achieved to maximize its efficiency and effectiveness.

Keywords: Online Professional Development; Online Teaching; Blended Learning; Communities of Practice.

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General Introduction

Though online teacher professional development (henceforth OTPD) is not a new phenomenon, it has attracted much attention in the last few years. This was especially so with the spread of the Covid-19 pandemic and subsequent lockdown of many academic institutions. As a matter of fact, online learning and teaching have been integrated as an essential element in education around the world. In the Algerian case, online teaching has been adopted as essential component across the different educational institutions due to the pandemic (see for example, Sia, & Cheriet, 2019; Bellatrache & Alloutti, 2020). Accordingly, there was an urgent need to train teachers on how to effectively use technology in delivering their lectures. Broadly speaking, OTPD aims at improving teachers' skills and competences in the virtual space with the use of the various technological devices and mediums.

The aim of this secondary research work is to present an account of the status of OTPD in three different situations and backgrounds in order to examine the influence of online teaching training on teacher professional development. To this end, three articles were selected in this research as they examined pertinent aspects of teacher professional development via the exploitation of various technological mediums. The first article by Ciampa and Tiffany L. Gallagher (2015) addressed the usefulness of blogging to support teachers' professional development in a local school board in southern Ontario, Canada. The second selected article by Uwe Matzat (2013) compared OTPD with blended learning in terms of their benefits and effects in the Netherlands. The last article is written by Damian Maher and Anne Prescott (2017) which studied the impact of video conferencing on TPD for Australian teachers living in rural or remote places.

The question in these three articles is raised about the impact and effectiveness of OTPD. Along with this main question, other secondary questions are also included to elaborate on the views of participants on the usefulness of OTPD and whether they do

benefit from their online training. In brief, the three articles selected for scrutiny in this critical review of literature tackled three widely used tools in OTPD; blogging, blended learning and the use of video conferencing

The significance of this research lies in the fact that it synthesizes important contributions on effective teacher professional development (ETPD) in the virtual space in Canada, Netherlands and Australia. Indeed, these three studies offered important insights on teachers' interaction and collaboration via different virtual platforms. Moreover, they paid close attention to the reactions of participants in the projects executed by the academic institutions in these countries and how teachers reacted to the use of online modes of training instead of the traditional ones.

This dissertation is divided into two main parts including an introduction and conclusion. It proceeds with an overview of basic theoretical notions and concepts in the domain of distance learning and online teacher professional development. A succinct literature review on the most pertinent terms is laid down. The second part offers a comparative and critical account of three studies from different geographical areas.

Part One: Theoretical Background

Introduction

This theoretical part is divided into five main sections which lay the foundation for the basic notions and concepts that are associated with OTPD, its challenges and perspectives. The first section attempts to offer a comprehensive definition to ‘online teaching’. This notion is further explicated in the second section which brings to the fore its requirements, challenges and prospects. The most important concept ‘online teacher professional development’ is defined in the third section-along with two closely related concepts: ‘blended learning’ and ‘communities of practice’. The fourth section sheds light on the components and effectiveness of OTPD which is the main concern of the selected articles in this research work. The fifth section exhibits the challenges and implications of OTPD.

1.1. Defining Online Teaching

In mundane terms, online teaching and learning can be defined as any form of education that is not face to face and does involve technological mediums and devices. One should bear in mind that there are a few other labels that can be used interchangeably with online teaching/ education, for example; E-learning, virtual education, Internet-based training, web-based training, and virtual education. Michael Moore and Greg Kearsley write “Distance education is teaching and planned learning in which teaching normally occurs in a different place from learning, requiring communication through technologies as well as special institutional organization” (2012, p. 2). There are a variety of online platforms with different gadgets and tools which provide instant access to course content and materials. The sheer vastness and diversity in both content and tools raise a spectrum of questions about the most effective strategies and techniques of teaching and learning via the virtual spaces.

1.2. What does Online Teaching Entail? Benefits, disadvantages and Challenges

There is no doubt that the virtual space cannot be a substitute for the natural setting. Nevertheless, the former has a number of positive aspects that are worthy to mention. Teachers find it relatively easy to keep track of their training programs and access the course materials at their convenient time. The relatively easy access and sharing of materials is one of most important innovative assets in OTPD (Chen 2012). It is also obviously less costly and can be achieved from different locations which makes teachers more flexible and under no pressure to miss lectures or program deadlines (Berge, 1998).

On the other hand, a few other disadvantages and obstacles that may hinder the efficacy of online learning should also be acknowledged. First, teachers' beliefs and their attitudes differ in relation to the effectiveness and necessity of using technology to develop their skills and performance. It is needless to add that some may not be well versed with the use of technology as a medium for instructions and other related teaching practices online. Not all teachers are motivated to use technology and some may hold negative attitudes about the use of virtual tools in learning. Lack of motivation would lead eventually to less involvement and limited participation in online activities. (Chen et al, 2009). Second, there is no face-to-face interaction which may cause communication breakdown. Thus, feedback may not always be instant as in the classroom which is livelier and more motivational for teachers as learners.

It is worthy to mention that online teaching satisfies the needs of a vast and growing population of learners. Some of these prefer online learning because of their work preoccupations and responsibilities or simply because they live in remote places (Maher, 2017). In this sense, the flexibility of virtual learning offers unique educational opportunities for such learners. However, just like the classic mode of teaching, OTPD has its own logic with regard to course design, its implementation and

the evaluation of learners' performance. Among the requisites for successful online training programs for teachers is the availability of relevant technological equipment that best facilitate the teaching experience. Such technical facilities should also be adjusted to suit the teaching objectives and goals of the training program. Furthermore, knowledge about the technical requirements and software is another pivotal factor for both teacher trainers and teachers as learners.

Despite the rapid improvements of online teaching in the recent years, both in terms of practice and delivery modes, there are still a spectrum of challenges that should be addressed. From a pedagogical point of view, a number of concerns were raised about the ways in which onsite teaching practices can be adopted in the online space (see for example, Gregory & Salmon, 2013). It was advocated that there is no one single approach to emulate the teaching practices onsite. Some other scholars (Herring, 2004) claimed that the use of technology as a medium for instruction is in its own right problematic as it heavily shapes communication and interaction among the participants. In what follows, further elaboration on the concept of OTPD, among a few other related terms, will be furnished to demarcate the theoretical boundaries and context of this dissertation.

1.3. Online Teacher Professional Development (OTPD)

There has been a scanty literature on the definition of teacher professional development (Hartland & Kinder, p. 1997). Damian Maher and Anne Prescott (2017) refer to Hassel's definition which states that TPD is a 'process' where the competence and skills of teachers are sharpened for better quality education experience that would eventually better benefit students (1999, p.1). It is quite important for teachers to engage in professional development activities to "develop, implement, and share practices, knowledge, and values that address the needs of all students. It is a collaborative effort, in which teachers receive support from peer networks, local administration, teacher educators, and outside experts." (Schlager, Fusco et al. 2004, p. 5). This process, in Earley's and Bubb's words (2004, p. 5), is an ongoing activity that

takes place in different settings with the aim of developing teaching values that would enable educators and instructors to effectively practice teaching.

Adding the ‘online’ component means a shift towards the use of virtual tools and strategies in learning and teaching to meet the needs of instructors and enhance their competence, teaching practice and capabilities in online teaching. The need for OTPD was created due to a myriad of circumstances most notably the increasing demand for online learning opportunities and the late pandemic conditions. A workshop by the American National Research Council (2007) reported that “Growing numbers of educators contend that online teacher professional development (OTPD) has the potential to enhance and even transform teachers’ effectiveness in their classrooms and over the course of their careers” (Enhancing PDT, p. 2).

A few other concepts are also worthy to conceptualize in this theoretical part, namely ‘blended learning’ and ‘communities of practice’. The former means the use of virtual and offline resources for training by teachers. It should be mentioned in passing that this type of mixed teaching and learning practice has been embraced by many academic institutions with the outbreak of Covid-19. As far as this critical review is concerned, the concept of “blended learning” is used by Uwe Matzat (2013) in his article “*Do blended virtual learning communities enhance teachers’ professional development more than purely virtual ones? A large scale empirical comparison.*” In it, he investigates the effectiveness of blended learning in proportion to purely online teaching. This comparative account offered important insights on the mixed approaches of teaching and its benefits for teacher professional development.

Another key term in the three articles being reviewed in this dissertation is the so called “online communities of practices”. As the wording indicates, it refers to a form of social learning” (Mercieca, 2017, p. 1) where teachers of common interest will participate in a teaching training program in an online setting. Lave, J. and Wenger (1991) in *Situated Learning: Legitimate Peripheral Participation* define communities of practice as follows:

A community of practice is a set of relations among persons, activity, and world, over time and in relation with other tangential and overlapping communities of practice. [It] is an intrinsic condition for the existence of knowledge, not least because it provides the interpretive support necessary for making sense of its heritage. Thus, participation in the cultural practice in which any knowledge exists is an epistemological principle of learning (p. 98).

Lave's and Wenger's definition refers to important features of online learning. Most notably, it hints to the collaborative nature of online teaching and the relationships between the participants who share, among a few other things, the same interests and needs for the sake of improving their practice in teaching. This aspect has been tackled in the three articles selected in this research. Accordingly, the next question that comes to the fore is to identify the most effective strategies in OTPD that will be discussed in some details in the next section.

1.4. Effectiveness in Online Teacher Professional Development (ETPD)

The main concern in the existing body of literature is concerned basically with identifying the most effective methods and programs to train online teachers. Focus was paid to a spectrum of programs, processes, methods and implementation strategies. However, "areas that did not receive a strong focus included the context or setting, the role of administration, and institutional support and buy-in for the programs" (Leary et al., 2020, p. 269). Indeed, debate on professional development of teachers and educational instructors is not new as it tackles essential questions on traditional TPD, yet it adds another layer of reflection on the most productive online strategies in TPD. In this context, the term "effectiveness", which could be used interchangeably with "efficiency", requires some theoretical and empirical explication.

Overall, effectiveness in OTPD touches upon three major elements. First, the position of instructors who play the role of students and who will be engaged in a

learning rather than teaching experience. This will definitely lead us to investigate teachers' attitudes and perceptions about OTPD. While some teachers are enthusiastic and motivated to learn online, others may resist this orientation in teacher training. Hence, self-motivation and engagement, among many other personal beliefs about OTPD, are seminal factors in a successful learning outcome. (see for example, Cobb & Lowe, 2012; Terosky & Heasley, 2015). Second, the content and design of professional development programs which is equally important aspect and constitutes a major concern in OTPD. One of the issues in this context is the adaptation of the traditional teaching content in the online space. Third, the institutional requirements and support that help facilitate better quality training for teachers. To wit, the support that teacher receive from the institution they belong to, would definitely help create a suitable atmosphere for OTPD (Herman, 2012; Meyer, 2014; Ragan et al., 2012). It is worthy to note in passing that there are other micro aspects that may not fall under the above-mentioned categories. For example, students' rather than teachers' needs, assessment procedures and evaluation rationale are also related to the requisites of ETPD which could be thoroughly discussed. However, due to space limits these aspects are addressed in this dissertation.

1.5. Online Teacher Professional Development in Balance

Although there has been much progress in the field of E-education in general and OTPD in particular, there are still a number of obstacles and challenges at the theoretical and technical levels that require some further refinement and improvement. Taking into account the aforementioned categorization of effectiveness in OTPD, one can consider a few major challenges that may hamper the effectiveness of online teaching and minimize the benefits. A study conducted by Trisha Poole, Angela Fitzgerald and Chris Dann (2020) identified five fundamental aspects that are likely to cause a serious challenge to a successful OTPD experience; the lack of human

interaction, the problem of timing, a variety of technical issues, issues related to course content and material, and completion of the online PD.

At the level of the participants, it has been noticed that educational instructors and teachers may not always be motivated for training and even may hold negative perceptions about its usefulness for their own professional development. Indeed, some scholars pointed out the lack of involvement by teachers in OTPD programs and more importantly the lack of reflective practice which negatively affects the impact of the OTPD (see, Gaillard and Rajić, 2014). In relation to program content and design, some teaching components are relatively difficult to be taught online in proportion to others. Evaluation and assessment procedures could also be another serious issue for teachers to handle. The last aspect is essentially organizational and technical. Online efficacy in teaching necessitates sophisticated hardware and software equipment which may not always be affordable.

Conclusion

To sum up, this conceptual part provided an overview of major theoretical constructs and notions in the domain of OTPD. The aim was to delimit the scope of this topic and contextualize it within the boundaries of distance teaching and learning. Proper definitions were given to online teaching, OTPD, communities of practice and blended learning. There was also a need to highlight the current challenges and prospects of OTPD, including its requirements which were pivoted around three main aspects: Teachers' roles, program design and components and finally institutional requirements. In order to review some of the relevant empirical findings on this topic, we selected three contributions from different geographical areas. The common point that brings the articles selected in this paper is effectiveness of online trainings for teachers' professional development, the best tools to achieve better quality teacher training, including the general attitudes and perceptions of teachers of the necessity to embrace the virtual training.

Part Two: Review of Empirical Studies

Introduction

It is the aim of this part to critically review the aforementioned articles where focus will be placed on the methodological framework adopted in each of these articles. It is equally important to compare and contrast the empirical findings of these contributions with reference to the conceptual and methodological frameworks adopted by each article. By the end of this chapter, a succinct synthesis will be worked out to find satisfactory answers to the research problem being discussed in these three case studies. That is to say, the impact and effectiveness of online teacher professional development training on the performance and practice of teachers.

Accordingly, this part is divided into three sections, including a succinct introduction and conclusion. The first part provides an overview of the three articles in terms of the context of the study, participants, research instruments, and data analysis procedures. Such a survey is done in a rather comparative manner. In the second part, a comparison and contrast of major findings of these articles is laid down to show the similarities and dissimilarities between these contributions. Finally, I will discuss the results and findings in relation to the concepts endorsed and the research questions. A number of comments, whenever possible, will be made throughout this empirical review of the selected case studies.

2.1. Overview of the Three Articles

Katia Ciampa and Tiffany L. Gallagher (2015) examined the impact of blogging on in-service teachers' professional learning and development during collaborative inquiry. Tiffany L. Gallagher is Professor in the Department of Education Studies at Brock University, Canada and Katia Ciampa is Assistant Professor of Literacy Education at Widener University, USA. The study conducted by these two professors examined the effectiveness and usefulness of blogging as a tool for collaborative learning,

communication and reflective practice among cross-grade teachers in Southern Ontario, Canada. This was executed as a collaborative inquiry involving co-planning and debriefing after receiving classroom instruction. Particularly, it addressed the “efficacy of blogging to enhance in-service teachers’ professional development” (Ciampa & Gallagher, p. 884). Furthermore, it examined the participants’ beliefs (teachers, lead facilitator and coaches) about and attitudes towards the usefulness of professional development via blogging. The authors raised intriguing questions on how blogging can be adequately and properly exploited for efficient collaborative teachers’ learning and development.

The domain assumptions that underlie the conceptual framework of Ciampa’s and Gallagher’s article stem from the belief that teachers should engage in collaborative learning. This feature has already been highlighted in the previous theoretical part (see Lave’s and Wenger’s definition of communities of practice). With reference to the contributions of Borko (2004), Nelson and Slavit (2008), Ball and Cohen (1999), and especially Coburn’s and Stein’s (2010), the authors advocate for ‘inquiry-based approach’ made of four-stage cyclical process: Planning, acting, observation and finally reflecting and sharing the results of learning. In this context, it is believed that blogging is an important space for collaborative learning as teachers can learn, interact, reflect and communicate with one another.

The authors used a mixed methods approach to observe the use of blogging by the respective participants in the study, including their views about the usefulness of blogging for teaching purposes. Hence, they utilized a myriad of data collection tools over a period of seven months; Individual semi-structured teacher interviews, blog statistics tracking tool and blog entries. The execution of this study went through four different phases in the following order: Introductory plenary sessions in two full days where teachers were taught how to use the school district’s e-learning portal. Collective co-planning sessions in two full days at the school board’s education center, and finally flexible co-planning sessions in four half days. During this period the

participants were given the opportunity to decide on the activities, materials, objectives of their respective lessons, and finally teacher moderation and forum.

The participants in this research were elementary and high school teachers. Three different categories of participants were selected: Twelve elementary and secondary teachers, one lead facilitator and two literacy coaches. The authors utilized quantitative content tools and descriptive statistics for the analysis of teachers' activities, blog posts, topic visits and interviews. Thus, teachers' blog entries and comments were analyzed qualitatively. Put it differently, the output of this quantitative descriptive analysis was also coded to be analyzed qualitatively. The codes that came out of this analysis in the form of frequent themes, words, phrases and patterns were analyzed with reference to the different stages of the aforementioned collaborative inquiry cycle.

The second article is written by Uwe Matzat (2013), an Assistant Professor of Sociology working in the Human-Technology Interaction Group at Eindhoven University of Technology in the Netherlands. As it is clearly indicated in the title of the article, the author compares the efficiency of professional development in blended communities with purely online ones in the Netherlands. Matzat claims that OTPD "did not take up the potential of blended communities intensively (p. 3) and little attention was paid to the possibilities of integration between the traditional and online practices of teaching in what is labeled as "blended communities".

At a narrower level, the article casts light on the practical benefits that teachers gain from blended communities in terms of the potential improvements of their teaching capabilities and thus their understanding of their school subjects. Also, the author considers the extent to which embeddedness motivates teachers' involvement and participation in online discussions.

In his article he raises a question on the efficiency of OTPD for real-life and online communities compared to 'purely' virtual ones advocating that the higher

degree of embeddedness in offline networks, the more teachers improve their teaching skills as they receive more opportunities for their own professional development. The author tested the following inter-related hypotheses: the higher degree of embeddedness in offline settings, the more teachers: a) improve their teaching skills b) improve knowledge about school subject c) receive information about vacancies d) are satisfied with the quantity and thus e) quality of materials.

Questionnaires were utilized for data collection from thirty-three online communities of practice for a fifteen-month period from November 2005 till February 2006. Only a few members were contacted via email in a random way for a web survey. At a later stage, seven communities were removed as the respondents were not experienced with the concept of embeddedness. Therefore, only twenty-six communities were analyzed (1492 teachers) to test the aforementioned hypotheses. The participants involved were teachers of secondary education in a Dutch virtual organization. Embeddedness of teachers' online communities in offline settings was measured in an indirect way using a Multifold scale of analysis to examine whether it motivates teachers' involvement and participation in online discussions.

The third article by Damian Maher and Anne Prescott (2017) examines the impact of video conferencing on the professional development of rural and remote teachers. Damian Maher is a lecturer and Anne Prescott is associate professor at the University of Technology, Sydney, Australia. This article examines the benefits and shortcomings of distance learning for OTPD in rural and remote areas in Australia (New Southern Wales). Yet, this article focuses solely on video conferencing as a tool for distance learning and professional development. Damian and Anne endorse Hassel's definition of professional development which is conceptualized as "the process of improving staff skills and competencies needed to produce outstanding educational results for students" (1999, p. 1). It is worthy to note that collaborative activities are highly encouraged as they are believed to support teachers' engagement in professional development. Another important aspect is *reflective practice* which is also a vital

element in stimulating debate and collaboration between the participants. Damian and Anne claim that the time factor could not be ignored in this process. Indeed, effective learning that impacts teachers practice requires a reasonable amount of time.

With reference to the theoretical framework of this study, the authors ground their work within the boundaries of the constructivist approach. Damian and Anne used a ‘community of inquiry model’ which is informed by constructivist approach to learning. The model is divided into three components: social presence, cognitive presence and teaching presence. The social presence, dimension, in Garrison’s words refers to the “ability of participants to project their personal characteristics into the community as *real people*” (Garrison et al, 2000, p. 89). The data is taken from video conferencing session and an online survey. This survey is made of fifteen questions where participants were asked to provide written feedback. Likert scale is also used to generate numerical responses.

This research used qualitative approach to analyze informal discussions with teachers through video conferencing. The authors gathered data through an online survey of 15 questions in order to account for participants’ views about video conferencing and also previous PD experiences in rural areas. Secondary school teachers of mathematics or science in some rural areas received notices via the school association. Video conferencing groups were formed of four to six teachers. The different kind of data collected was coded with reference to the Community of Inquiry Model to analyze the interaction between teachers during the PD process. Data was analyzed with reference to three dimensions: Social, Cognitive and Teaching presence.

In the next section of this chapter, attention will be placed upon the major results and findings of the selected articles.

2.2. Major Results and Findings

Katia Ciampa and Tiffany L. Gallagher (2015) came up with the following findings: In relation to the first question, it was noticed that teachers tended to gather information

and resources in the first place rather than reacting to their blog posts. Secondary teachers used the blog more often than elementary teachers. As far as the second question is concerned, the use of blog was highly appreciated by the participants as it was viewed as a facilitator for knowledge sharing and interaction. From a cognitive vantage point, teachers were fully engaged in problem solving and knowledge exchange. The participants were confronted with a number of hurdles most notably when it comes to the use of technology. On the one hand, teachers have different attitudes towards the usefulness of computer-based learning and such negative views constitute a barrier for learning. On the other hand, there were some times as well as technical issues and lack of training on how blogs work. It was made clear that weblogs are beneficial for introverted, reserved and reflective teachers.

In relation to the study of Uwe Matzat (2013), results show that the degree of embeddedness changes in tandem with the engagement of the members in offline interaction. The implication behind the resulting measurements is that embeddedness increases when the participants interact in offline settings and the reverse is equally true. It was also shown that teachers' perceptions on the benefits in relation to teaching skills, knowledge about their school subject, information about vacancies, quantity and quality of material offered, differed considerably. However, the first three items received a relatively high score for the majority of teachers in proportion to the last two items mentioned above which validates the claim of the author about the usefulness of offline embeddedness in improving teachers' skills, knowledge and information of vacancies. Therefore, it is clearly indicated that highly embeddedness increases teachers' profit.

As far as the work of Damian and Prescott (2017) is concerned, it has been demonstrated that teachers appreciated the benefits of video conferencing which helps them overcome these issues. The participant teachers were asked to reply to a questionnaire on professional development opportunities and the difficulties they face in their teaching context. Findings show three main cited difficulties. Teachers

complained about the high cost, time and distance issues as the main hurdles in onsite professional development.

From a social point of view, teachers were motivated and enthusiastic in discussing and sharing information about their schools with other teachers whom they did not know, some reservations were made about the lack of interaction though. The second dimension is the cognitive presence of teachers where it was noticed that the participants used the knowledge that they learned from the morning session to come up with new ideas and solutions. As far as the third component is concerned, it was noticed that the presenter tends to dominate the scene in video conferencing when the number of participants increases. The findings of these three articles will be discussed and critiqued in the light of the hitherto cited contributions in the literature review and related conceptual constructs.

2.3. Discussion of Major Results and Findings

Overall, the participants in the three cases, despite their belonging to different geographical areas, were motivated and interested in learning via online tools to boost their professional development. Moreover, the three articles share the same view in relation to teachers' enthusiasm and engagement in OTPD, with only little reservation about its utility and effectiveness. Most participants in these case studies were indulged in the E-learning experience and appreciated the value of the programs through their comments. Indeed, it was demonstrated with ample evidence that teachers' attitude towards the OTPD is a major factor in the success or failure of OTPD programs. Such an argument is congruent with the assumption held by Cobb & Lowe, (2012) and Terosky & Heasley (2015).

Other technical difficulties such as the lack of connectivity and knowledge of computing were cited as barriers in OTPD. The three articles also highlighted two major aspects. First, an emphasis on the collaborative nature of learning which requires interaction and building relationships between the participants in the OTPD

experience. This finding is in line with the assumption held by Schlager, Fusco et al. (2004), and Lave, J. and Wenger (1991). Second, it was also noticed that they did not only share knowledge and information, but also engaged in problem solving and learning techniques, strategies and methods. The argument is also advocated by Gaillard and Rajić (2014) and Garrison et al (2000). Indeed, reflective practice through building constructive dialogue and conversation among teachers has been highly stressed as a fundamental factor for an active engagement in in the OTPD experience in Damian and Prescott (2017) Ciampa & Gallagher (2015) and less remarkably in Matzat (2013).

It should be emphasized that many lessons can be learned from these experiences to promote the E-learning culture in the Algerian educational institutions which, despite the efforts made so far, remains in its early stages. Indeed, OTPD as part of the online teaching culture is not yet fully developed. During the last few years, the general policy of the higher education encouraged the widespread use of online teaching methods at all educational levels, but OTPD does not seem to attract much attention. The reasons for this need to be analyzed and studied thoroughly to identify the shortcomings and possibilities of professional development of teachers with the use the communication technology.

Conclusion

The empirical part of this dissertation offered a comparative account of the major results and findings of the cases studies. These were also thoroughly discussed in the light of the existing literature. Although there are a number of common points between the three studies, they differed in terms of the way they approached online learning in the context of PD. The findings showed also that video conferencing, blogging and embeddedness in PD generated different kind of reactions from the part of participants, most of which were positive and enthusiastic.

General Conclusion

To put it in a nutshell, this research work attempted to critically examine the impact of online teacher professional development. It also aimed at investigating the features, procedures and strategies that contribute to a more effective teacher training program in the online space. In this context, relevant literature was reviewed to comment on the most updated contributions in the field of online education with special focus on the means, modes of delivery, program content and thus teachers' perceptions on the usefulness of OTPD. Three case studies from different geographical areas were selected for scrutiny and analysis (Matzat, 2013, Damian & Prescott, 2017; Ciampa & Gallagher, 2015). Hence, this research work is divided into two main parts. The first is a theoretical review of the existing body of literature on OTPD. Key terms were defined along with a highlight on the challenges, shortcomings and advantages of OTPD. The second part is purely empirical where the three selected articles were compared and contrasted at the methodological and empirical levels.

It has been shown that the three case studies, despite the difference in terms of the methodological approaches and tools that they adopted and their heterogeneous educational and geographical settings, they shared a number of common points vis-à-vis the efficacy of online teaching and its impact on teachers' practice. While Ciampa and Gallagher (2015) investigate the usefulness of blogging in collaborative inquiry for teachers' professional learning and development in Southern Ontario, Canada, Matzat (2013) examined the ways in which embeddedness enhances teachers' professional development in the Netherlands. The last case is carried out by Damian and Prescott (2017) to shed light on the usefulness of video conferencing for rural teachers in Australia. It was demonstrated with ample evidence that online training can substantially improve teachers' performance and achievements. Though there are still some barriers at the technical level, including some other issues that relate to teachers' perceptions, motivation and lack of active participation, OTPD is still quite rewarding and fruitful for improving teachers' practice.

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Abstract in Arabic

يعد تطوير الأداء المهني للمدرسين جزءًا أساسيًا جدًا في حياتهم المهنية مما يجعلهم يحسنون من كفاءاتهم ومعرفتهم بشكل مستمر. مع الانتشار السريع للوباء في الجزائر منذ عام 2020، لوحظ هناك تحول كبير نحو اعتماد التدريس عبر الإنترنت في المؤسسات التعليمية. حيث أظهر المدرسون مستويات مختلفة من الكفاءة عبر منصات التعليم المختلفة. و يعود هذا الاختلاف إلى التفاوت في مستوى خبرتهم ومعرفتهم بثقافة التعليم الإلكتروني بشكل عام.

تهدف هذه الورقة البحثية إلى إلقاء الضوء على المدى الذي يمكن أن يؤدي فيه التدريب على التعليم الى تطوير ممارستهم المهنية وجعلها أكثر إفادة. للقيام بذلك ، تقارن هذه الأطروحة بين ثلاث مقالات من خلفيات ووجهات نظر منهجية مختلفة في مجال التعليم عن بعد.

(Ciampa & Gallagher, 2015; Matzat, 2013; Maher & Prescott, 2017)

أكدت هذه المساهمات على فاعلية أدوات الإنترنت في التطوير المهني للمدرسين، و تم أيضًا تسليط الضوء على عدد من أوجه القصور على المستويين العملي والمنهجي في برامج تطوير الأداء المهني عن بعد . تشترك نتائج هذه المقالات في نفس وجهات الرأي حول فعالية التطوير المهني وتأثيره الإيجابي على معرفة الاساتذة وخبراتهم ومهاراتهم. ومع ذلك ، فإنهم لا يتشاركون سوى القليل من الإجماع حول كيفية تحقيق ذلك لزيادة كفاءته وفعاليتة.

الكلمات المفتاحية

تطوير الأداء المهني؛ التعليم عبر الإنترنت؛ التعلم المختلط؛ مجتمعات التدريب عبر الخط.