



**THE REPUBLIC OF TURKIYE
SOCIAL SCIENCES UNIVERSITY OF ANKARA
THE GRADUATE SCHOOL OF SOCIAL SCIENCES**

**AN ALTERNATIVE PATH FOR PROFESSIONAL DEVELOPMENT: EXPLORING THE
EFFECTS OF eTWINNING PROJECTS ON TEACHERS' PROFESSIONAL GROWTH**

Master's Thesis

Merve Kasnak Hancioğlu

Department of Foreign Languages Education

English Language Education

July 2025



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ABSTRACT

Professional teacher development has been widely investigated in educational settings as it ultimately affects the student achievement. In recent decades, the nature of teacher professional development has evolved into a more dynamic and self-regulated process, largely due to the technological advances. This shift leads to the recognition of online learning communities as effective tools for enhancing professional knowledge. The eTwinning platform, funded by the European Commission, encourages teachers to engage in collaborative European projects and online communities for professional growth. These projects provide teachers with opportunities for peer learning, exchanging practices, and building networks within a safe digital environment. Employing an explanatory sequential mixed-methods approach, this study investigates how participation in eTwinning projects contributes to teacher professional development. An online questionnaire was utilized to gather a broad overview of teachers' perspectives, which was supported by focus group interviews to gain a detailed understanding of individual experiences and insights. The participants of the study were volunteer teachers from various European countries, including Italy, Spain, Croatia, Poland, and Türkiye, all of whom had participated in at least one eTwinning project. The findings highlight the value of eTwinning as a tool for continuous professional development, underscoring its potential to foster collaboration, innovation, and create a sense of community among educators. The identified challenges were also presented to provide a comprehensive understanding of the subject matter. The study contributes to the growing body of literature on the effects of eTwinning, an online learning community, on teacher development, offering insights for educators, policymakers, and educational institutions aiming to utilize technology for professional growth.

Keywords: eTwinning, Teacher Professional Development, Online Learning Communities, Telecollaboration

ÖZET

Öğretmen mesleki gelişimi, öğretim kalitesi ve öğrenme çıktılarına olan doğrudan etkisi dolayısıyla eğitim sisteminin odak noktasıdır. Son yıllarda, öğretmen mesleki gelişimi geleneksel tepeden inme metotlardan; dinamik, özerk ve teknoloji destekli süreçlere doğru evrilmiştir. Bu değişim ile gelen eğitim alanındaki büyük yeniliklerden biri de çevrimiçi öğrenme topluluklarının profesyonel gelişimi destekleyen etkili yöntemler olarak fark edilmesidir. Bu çalışma, eTwinning projelerine katılmanın İngilizce öğretmenlerinin mesleki gelişimine olan katkılarını incelemeyi amaçlamaktadır. Araştırma, öğretmenlerin eTwinning'e katılımının bilişsel, duygusal, sosyal ve eyleme dönük boyutlardaki etkilerini değerlendirmekte; ayrıca öğretmenlerin platformu nasıl kullandıklarını ve proje yönetimi sürecinde karşılaştıkları zorlukları ortaya koymaktadır. Açımlayıcı sıralı desen karma yöntem araştırma metodunun kullanıldığı bu çalışmada, nicel veriler çevrim içi anket yoluyla, nitel veriler ise ankete eklenen açık uçlu soru ve odak grup görüşmeleri aracılığıyla toplanmıştır. Katılımcılar, İtalya, İspanya, Hırvatistan, Polonya gibi Avrupa ülkeleri ve Türkiye'den gönüllü öğretmenlerdir. Araştırma bulguları, eTwinning Platformunun iş birliği, yenilikçilik ve eğitimciler arasında bir topluluk bilinci oluşturması noktasındaki potansiyelini öne çıkarmıştır. Bu bağlamda, araştırma göstermiştir ki tespit edilen engeller ile baş edildiği takdirde platform öğretmenlerin sürekli mesleki gelişimi için potansiyel bir araç olarak değerlendirilebilir. Bu çalışma, çevrim içi öğrenme topluluklarının öğretmenlerin mesleki gelişimi üzerindeki etkilerine ilişkin literatüre katkı sağlamakta ve çevrimiçi öğrenme topluluklarının mesleki gelişim amaçlı kullanımı konusunda öğretmenler, politika yapıcılar ve eğitim kurumları için değerli çıkarımlar sunmaktadır.

Anahtar Kelimeler: eTwinning, Öğretmen Mesleki Gelişimi, Çevrimiçi Öğrenme Toplulukları, Tele İş birliği

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LIST OF ABBREVIATIONS

PD: Professional Development

CoP: The Community of Practice Theory

MONE: The Ministry of National Education

SLTE: Second Language Teacher Education

PLN: Professional Learning Network

FCL: Fostering a Community of Learners

OcoP: Online Community of Practice

TPACK: Technological Pedagogical Content Knowledge

COIL: Collaborative Online International Learning

EFL: English as a Foreign Language

SNS: Social Networking Site

ICC: Intercultural communicative competence

ICT: Information and communication technologies

ESEP: European School Education Platform

CHAPTER I

INTRODUCTION

This chapter describes the transition of professional development approaches from traditional to modern, dynamic methods to better address the changing needs of educators. Next, it situates online learning platforms as beneficial modern tools for continuous professional growth. In particular, this chapter highlights the eTwinning platform, which aims to promote intercultural competence, cross-national collaboration and pedagogical development among educators. The need to understand the direct effects of the eTwinning projects on teachers' professional growth is presented. Eventually, the introduction of research questions, and the definition of the significant terms are provided.

Recent technological advancements and globalization have led to shifts in educational settings, still the professional development of teachers has a prominent role in addressing the evolving challenges of contemporary classrooms. Accordingly, professional teacher development has been widely investigated (Guskey, 2002; Merchie et al., 2016; Postholm, 2012; Sancar et al., 2021), as it ultimately affects student achievement. The process of professional development involves teachers learning, understanding the learning process, and integrating their knowledge into their teaching to support their students' improvement (Avalos, 2010). Traditional methods of professional development, such as seminars and formal in-service training sessions, appear to lack the flexibility, collaboration, and innovation necessary to meet the dynamic nature of modern teaching. In recent years, it has become essential to implement modern and holistic strategies for teacher professional development leading to more dynamic and self-regulated growth processes.

Alternative methods for professional growth are acknowledged with technology playing an effective role in transforming how teachers learn, connect, and enhance their practices. Research proves that online learning communities are recognized as effective tools for the professional development of teachers by creating communities of practice and enabling organizational practice exchange (Holmes, 2013; Lai et al., 2006; Wenger, 1998). In this respect the eTwinning Platform, which aims to empower educators, stands out as a potential online learning community among

numerous digital initiatives. Funded by the European Commission, the eTwinning platform encourages teachers to conduct and participate in European collaborative projects and virtual groups for professional development and peer learning (European Commission, 2021). This initiative, launched in 2005 under the Erasmus+ program of the European Union, offers educators to engage in cross-cultural projects, share innovative practices, and co-create educational content in a collaborative learning environment.

There has been a growing interest in the eTwinning platform and its several implications in education. Previous studies investigated the students' reflections on eTwinning projects (e.g., Cassí, 2014; Øverland, 2015), eTwinning projects' effects on the implementation of information and communication technologies (ICT) and improving 21st-century skills of the students (e.g., Aydin et al., 2022; Demir & Kayaoğlu, 2021; Huertas-Abril & Muszynska, 2022). Researchers suggested that participating in eTwinning projects enables teachers to experience efficient collaboration in online learning communities to exchange ideas and new practices that can improve their professional development (Başaran et al., 2020; Cachia & Punie, 2012; OECD, 2009) and feelings of self-efficacy (Kampylis et. al., 2012).

Despite the growing interest and reported benefits of eTwinning, there is still a need to examine its specific impact on teachers' professional development. Existing studies often highlight the collaborative and technological aspects of eTwinning projects. However, limited research has investigated how participation in these projects contributes to lifelong pedagogical innovation, intercultural competence, and professional growth deeply. A few studies reflected on some challenges (Camilleri, 2016; Demir & Kayaoğlu, 2021; Kızılaslan & Başkan, 2023), yet this area needs to be further investigated. Furthermore, there is a lack of thorough examination of how educators utilize the eTwinning platform to advance their professional development. Much of the current literature utilizes individual case studies or anecdotal evidence, leaving a need for a systematic mixed-method investigation that can present profound insights into the transformative potential of the eTwinning projects.

1.1. Purpose of the Study

The goal of this study is to investigate the impact of eTwinning projects on teachers' professional development, focusing on four key dimensions: cognitive, affective, actional, and social. Additionally, this research aims to explore the varying perceptions of educators through the lens of specific variables, including national background, teaching experience, teaching level, and eTwinning project experience. The study seeks to provide empirical evidence of the platform's effectiveness as a professional development tool by analyzing teachers' experiences and outcomes related to the eTwinning. Furthermore, this study investigates the challenges teachers face while participating in eTwinning projects, aiming to develop a comprehensive understanding of both the benefits and obstacles associated with this form of professional development.

1.2. Research Questions

Following research questions guided this research.

1. What are the perceptions of English language teachers who participate in eTwinning projects in terms of professional development?
2. In what ways do educators utilize the eTwinning platform to advance their professional development?
3. How do English language teachers describe the perceived benefits and challenges of participating in eTwinning projects?
4. What are English language teachers' experiences with the eTwinning platform regarding their professional development?

1.3. Significance of the Study

The growing integration of digital technology into education has transformed how teachers acquire and develop their professional skills. Traditional, and transmissive professional development approaches where teachers are accepted as individuals who lack knowledge (Garet

et. al., 2001; Nawab et al., 2021), no longer meet the diverse and changing needs of educators. There is a gap in the literature regarding how online learning communities serve as professional development tools, by enabling teachers to engage in collaborative, cross-cultural learning experiences that extend beyond conventional training models. This thesis seeks to fill that gap by examining the cognitive, affective, actional, and social dimensions of professional development within the eTwinning context.

The participants of this study encompass a range of national and academic backgrounds, along with varying degrees of teaching and eTwinning experience, which facilitated comprehensive comparative analyses. This collective engagement resulted in holistic conclusions regarding the topic under examination. Additionally, this research provides valuable insights into how the eTwinning platform can enhance teachers' pedagogical skills, technological competencies, and intercultural awareness. Overall, this research addresses existing gaps in the literature by offering a systematic investigation of eTwinning's role in the continuous professional development of ESL teachers.

1.4. Definitions of Significant Terms

Teacher Professional Development: Teachers learn how to enhance pupil learning by utilizing their knowledge effectively (Avalos, 2011).

Online Learning Communities: Digital platforms where teachers collaborate, share resources, and involve in professional discussions to enhance their teaching practices. These communities support peer learning, intercultural competence and problem-solving in an online environment (Holmes, 2013; Lai et al., 2006; Wenger, 1998).

eTwinning: An online platform, funded by the European Commission, that enables teachers and schools across Europe to collaborate on joint projects, share pedagogical innovations, and participate in professional development activities in a digital environment (European Commission, 2021).

Intercultural Competence: The capacity to engage efficiently with people from cultures that we acknowledge as being distinct from our own (Guilherme, 2000, p. 297).

Intercultural Communicative Competence: Individuals' intercultural communication competence (ICC) encompasses their understanding, motivation, and abilities to engage effectively and appropriately with people from various cultures (Wiseman, 2002, p. 208).

Pedagogical Innovation: The integration of new teaching methods, technologies, and strategies to enhance student learning experiences (Vincent-Lancrin, 2019).

Cognitive Development: Cognitive development focuses on "what language teachers think, know and believe" and how it affects teachers' classroom practices (Borg, 2006).

Affective Development: The emotional and motivational aspects of learning that influence teachers' engagement and professional growth. In an ideal scenario, teachers' professional development should be driven by their motivation and self-regulation, incorporating both cognitive and emotional aspects (Day & Gu, 2007).

Actional Development: The theory of action for professional development (PD) emphasizes helping teachers incorporate new concepts into their teaching. PD often involves discussions outside the classroom but aims to influence behaviors within the classroom (Kennedy, 2016).

Social Development: The ability to engage in collaborative learning, build professional networks, and belong to a community of practice. Communities of practice bring together individuals who share a common interest or passion for their work and learn to enhance their skills through regular interactions (Wenger, 199).

Telecollaboration: Telecollaboration in education encompasses the use of computers and digital communication tools to enhance learning by fostering social interaction and teamwork, thereby expanding the educational experience beyond the limits of traditional classrooms (Dooly, 2017).

CHAPTER II

LITERATURE REVIEW

This chapter reviews the current literature on foreign language teacher professional development, examining its cognitive, affective, social, and actional dimensions, which reflect knowledge acquisition, motivation, collaboration, and practical application. It reviews self-regulated teacher development, intercultural awareness, telecollaboration, and online learning communities within the eTwinning context. A particular focus was given to eTwinning as an online learning community, underlining its role in cultural competence and online cooperation. Furthermore, professional development activities in Türkiye were examined, detailing the role of the Ministry of National Education (MONE). By synthesizing previous research, this chapter identifies gaps in the literature, particularly regarding eTwinning's impact on teachers' professional growth, thereby establishing a basis for the current research.

2.1. Professional Development of Foreign Language Teachers

Teaching poses significant challenges due to the intricate nature of navigating through pedagogical strategies and contextual factors, which necessitate thoughtful decision-making (Smith, 2017). Therefore, promoting an environment where teachers can articulate their professional knowledge and rationale behind their practices is of great importance. Smith claims that this not only enriches student learning but also elevates the standing of teachers and the teaching profession. Researchers have widely investigated teacher professional development as improving teaching quality is inevitable for the overall success of an education system (Borg, 2018; Desimone, 2009; Guskey, 2002). Regarding this, there has always been an effort to enhance the benefits of professional development programs with various models of implementation.

Traditional professional development programs have been designed to facilitate courses, seminars, and workshops, assigning a passive role to the teachers throughout the process. Such

programs are generally formulated with a broad audience in mind, neglecting the nuances of individual differences. The teachers have traditionally depended on professional development opportunities, wherein they have had limited autonomy over the subject matter or its relevance to their unique context. However, PD needs to be relevant and closely aligned with the individual demands of educators, offering learning outcomes addressing real-life practices (Attard, 2007). Webster (2018) points out that the perceptions of self-directed language teachers who are responsible for their professional growth should be investigated (Wyatt & Ager, 2016).

Professional development achieves relevance by aligning with teachers' daily duties and authenticity by seamlessly integrating into everyday practice, assigning active roles to the teachers (Hunzicker, 2010). Hunzicker claims that these learning endeavors compel teachers to explore possibilities, experiment with new approaches, and evaluate the efficacy of their actions. Smith (2017) suggests teachers should receive effective support for taking the responsibility of their professional growth and to have a chance to experience, recognize and gain knowledge that is personally and professionally fulfilling. Effective support is essential for fulfilling the ultimate goals of teacher self-development, improved student learning, and sustainable education reform. Hence, Smith suggests that it becomes vital to reassess the current role of teachers in professional learning, with a specific focus on aspects such as ownership and self-direction, as well as identity and expertise.

According to Özbilgin et. al. (2016), school environment, experience, government policies, and individual factors influence professional development experiences. Their findings highlighted the importance of the PD programs' alignment with teachers' practical demands. In line with this, seminars and training that are irrelevant to the practical needs or interests of teachers are reflected as time-consuming or unhelpful. In the same vein, Onalan and Gürsoy (2020) conducted a case study to investigate private school EFL teachers' perspectives and demands on in-service training. The study highlighted that the content should align with the classroom practices. Participants reflected that they attribute importance to professional development activities; however, they perceive these trainings as unsatisfactory as they lack the chance to exchange ideas or useful teaching practices.

Self-regulated professional development is accepted as a successful medium to enable teachers to enhance their practices continuously, as they learn through participatory enquiry and reflective practice (Ermeling, 2009). However, there is still a need to examine the connection

between their thoughts and actions. Persico et.al. (2020) explored the beliefs and self-reported behaviors of 238 educators from Italy and Spain. The primary conclusion drawn is that to reach genuine cooperative professionalism, it necessitates self-regulated learning, particularly addressing affective barriers that hinder selfless behaviors among educators. Hamamcıoğlu (2023) investigated the experiences of Turkish EFL teachers regarding self-directed professional growth. This mixed-methods research revealed that collaboration is essential for teachers and emphasized the importance of context-specific professional development that addresses their demands, provides useful insights, and keeps them informed. Participants noted that attending free online sessions was advantageous, largely due to the opportunity they provided for community building. Additionally, participants expressed the reassurance of having colleagues to help, emphasizing that teaching is a collective effort. Such interactions encourage one another and create a supportive workplace environment, ultimately contributing to their sense of security.

The professional development of teachers is a crucial component of educational quality and effectiveness. Therefore, to ensure the ongoing professional development of educators, official measures are implemented. The programs, referred to as In-Service Education and Training (INSET), are designed to enhance the skills and knowledge of the teachers throughout their careers, ensuring they remain equipped to guide the students of the digital era. In Türkiye, the Ministry of National Education (MoNE) decides and delivers these professional development programs across a wide range of areas to support teachers through the changing expectations of the digital era.

The Turkish Ministry of Education has worked on different regulations on teacher professional development, and in 2022, put into effect the Candidate Teacher and Teaching Career Steps Regulation. This regulation proposes three steps in teachers' careers: teacher, master teacher, and head teacher. This progress necessitates a combination of seniority, online training and performance, centrally administered exams by the Ministry of National Education (MEB Mevzuat Bilgi Sistemi, 2022). Teachers with master's and PhD degrees are exempt from the exams; however, they are expected to complete the training. In conclusion, the professional development of teachers in Türkiye is a vital aspect of enhancing educational quality in the face of evolving digital demands. The structured approach taken by the MoNE, particularly through the implementation of the Candidate Teacher and Teaching Career Steps Regulation, ensures that educators have clear pathways for career advancement based on ongoing training and performance.

2.1.1. Models for Professional Development of Teachers

Professional development models have been classified into two main types: traditional and reform types (East, 2015; Garet et al., 2001). The conventional types of professional development are generally integrated outside of school, positioning teachers as passive receivers of content knowledge. Conversely, the reform models are embedded in the work environment, accepting teachers as self-regulated adult learners (Nawab et al., 2021). Borko et al. (2010) claim that the current professional development (PD) literature emphasizes the importance of long-term, inquiry-based, or learner-centered structures. As opposed to passive learning environments, these structures support teachers to become active learners (Desimone, 2009), as they collaboratively develop the professional knowledge necessary for application in their contexts. Borko et al. (2010) underline the calls for instructional reform, both on a general level and within specific content areas, which aligns with the aims of the professional learning communities as a framework for PD. Numerous studies have explored the effectiveness of large-scale professional development models (East, 2015; Ramamurthy, 2015; Turner, 2015). Indeed, there is a consensus that comprehensive educational reform interconnects student learning, instructional practice, and teacher professional development (Borko et al., 2010).

In addition to the demanding task of teaching, the rapid evolution driven by new technologies underscores the significance of well-designed teacher professional development. Teachers are acknowledged as having a crucial role in integrating technologies into classrooms and shaping instructional methods (Nazari & Xodabande, 2020). Riding (2001) emphasizes that the environment in which educators work is continually evolving due to shifts in politics, education, and society, necessitating teachers to receive more effective ongoing professional development to stay current. High-quality professional development ought to be continuous, promote reflection and collaboration opportunities, take place within schools, and be connected to teachers' daily work, be accessible and inclusive for all, and be rooted in a solid foundation of educational knowledge (Darling-Hammond, 2017; Riding, 2001). Borg (2018) defines professional development as a pivotal element for enhancing teacher effectiveness, encompassing every initiative designed to foster positive changes in the competencies of practicing educators.

Professional development stands as a crucial factor in facilitating successful educational reforms and triggers a domino effect, whereby positive advancements in student achievement

contribute to the cultivation of a more successful educational environment (Villegas-Reimers, 2003). Borg (2018) delineates his model into four levels for evaluating affect: immediate responses (instant satisfaction), acquisition (knowledge, attitudes, and skills), actions (practical application), and outcomes (wider organizational advantages). Guskey's (2002) framework proposed an expanded version with these levels: participants' reactions, the learning process, the support and changes within the organization, the application of acquired content and skills, and student outcomes. He suggests backwards planning, which begins by defining the desired student outcomes (Level 5) that the program aims to achieve. This process ends with planning the experiences (Level 1), such as workshops or collaborative activities, to facilitate the acquisition of these skills. Each decision at one level significantly affects the decisions made at the subsequent level, ensuring alignment and effectiveness in achieving educational goals.

Desimone (2009) asserts that evidence over the past decade has underscored the relation between topic-related activities and pedagogy, which results in improvements in teachers' knowledge and abilities, advancement in practice, and, to a lesser degree, developments in student success. Drawing from recent research, Desimone proposes the following key features to assess the effectiveness of professional development: emphasis on content, engagement in active learning, consistency, length of the program and group involvement. The ideal implementation of these features is expected to enhance teacher knowledge and abilities, with changes in behaviors and beliefs. In conclusion, Desimone expresses the need for further exploration in defining the teacher's knowledge in particular subjects, integrating student thinking into the framework of teacher knowledge, and enhancing our comprehension of the impact that teacher knowledge has on teaching methods.

The whole teacher development approach emphasizes utilizing an integrated developmental framework to enhance teacher attitudes, skills, knowledge, and practices simultaneously (Chen & Chang, 2006). Accordingly, Trust et al. (2016) propose that their study demonstrates Professional Learning Networks foster emotional, social, cognitive, and teacher identity dimensions of professional development. Their study will be reviewed deeply under related subsections. Avalos (2010) describes professional development as a complex notion that necessitates analytical and affective engagement. In line with this definition, many scholars stress the importance of teachers' expectations for improvement and cognitive, affective, actional, and social aspects in the professional growth of teachers (Hoekstra & Korthagen, 2011; Postholm, 2012; Zhang et al., 2021).

Accordingly, a collaborative model of professional development that establishes demands for collegiality among faculty and a motivation for professional growth should be pursued. Considering the above considerations, it is essential to investigate the effects of eTwinning, with particular emphasis on four key aspects of professional development.

2.1.2. Cognitive Dimension of Professional Development

The cognitive dimension of professional development focuses on the beliefs, knowledge, and thoughts of language educators" (Borg, 2006) and the effect it has on educators' practices in the classroom. İyidoğan (2011) proposes that a critical aspect of Second Language Teacher Education (SLTE) centers on cognition, which includes not only teachers' cognitive processes but also their well-being. SLTE further examines how these concepts develop, their components, and how teachers' ideas and cognitive procedures affect their perceptions of their teaching practices. Trust et al.'s study (2016) reveals that Professional Learning Network activities achieved cognitive growth by providing new knowledge, fostering reflective teaching, and improving their practice ultimately. Participants of the study reported that they acquired new teaching strategies, assessment tips, and web-based resources through their PLNs. Additionally, they improved their intellectual skills and became more reflective teachers. Trust et al. concluded that this reflective practice enabled teachers to evaluate their instructional strategies and pinpoint areas that need enhancement and foster collaborative growth within their PLNs.

England (2017) argues that teacher cognition research has traditionally focused on the individual level; however, there is a growing recognition that a collective perspective informed by the community of practice (Wenger, 1998) is needed. This perspective emphasizes the importance of qualitative teacher cognition research that examines common beliefs and teaching practices among communities of teachers within similar contexts (England, 2017; Schulman & Schulman, 2004). The aim of the study was to interpret the collective epistemological beliefs of language teacher educators. The participants were five educators of language teachers and three trainees from the English Department at a language teacher education center affiliated with Indonesia's Ministry of National Education in Jakarta. Data were gathered through four sets of individual and group interviews conducted in English. England highlighted (1) concerns regarding language and power, (2) the management of discourse, (3) the importance of a mutual understanding of key

concepts, and (4) the significance of standardized mediational tools. The study's results align with Borg's (2006) assertion that methodological decisions in the cognition of language teachers must consider practical feasibility, acceptability, and permissibility within the specific context under study.

2.1.3. Affective Dimension of Professional Development

The affective dimension of teacher professional development encompasses the emotional, attitudinal, and motivational aspects that impact educators' development and involvement in their profession. Various factors influence teachers' professional development, including their views on the work environment, the advantages of getting involved, the support from experienced colleagues, their professional identity, well-being and self-confidence. These elements are crucial because they can either enhance or hinder teachers' enthusiasm and dedication to their continuous development, which in turn benefits both the teachers and the work environment as a whole (Day & Gu, 2007).

Day and Gu undertook a large-scale four-year mixed methods research initiative examining the Variations in Teachers' Work, Lives, and Effectiveness (VITAE), which involved a large number of teachers from Local Authorities (Day et al., 2006a). The sample of their study successfully exemplified the national demographics as well as the socio-economic status and achievement profiles of their schools. The findings of the study revealed that phases of professional life and self-images were shaped by their ability to maintain their dedication. These were influenced by the specific environments in which they operated. Three key dimensions were identified as key factors: the personal (connected to their lives outside of work), the situated (associated with experiences within the workplace), and the professional (concerning values, judgements, and the interplay with external policy). These dimensions were dynamic rather than fixed. Teachers experienced varying degrees of fluctuation within and across these dimensions at any moment, which affected their identities. Consequently, Day and Gu suggest that high-quality professional development should meet the changing learning needs of teachers to guarantee their persistence, devotion, and efficacy, all of which are essential for enhancing performance.

İyidoğan (2011) investigated the individual factors that influence proficient English language teachers' preferences for participation in Professional Development (PD) programs. Three

interviews were held with six English language teachers at different times. The study revealed that the participation of experienced educators in PD activities is unfavorably influenced by the constant changes in the educational system, the classroom context, and a diminished sense of well-being. However, teachers with intrinsic motivation and a commitment expressed a willingness to participate in PD activities. The study shed light on the importance of motivation, which can even overcome other challenges, such as negative attitudes of school management or uncollaborative colleagues, that might impede professional growth efforts. The results indicated that the participants valued cooperation as a motivating and fundamental aspect for teacher professional development.

Trust et al. (2016) explored teachers' experiences related to their professional development after facilitating Professional Learning Networks (PLN). Respondents described their perceptions as motivated, involved, and revitalized. These perceptions arise through their engagement with colleagues, eventually reigniting their motivation and enthusiasm for practice. Moreover, these educators noted an increase in confidence, which allowed them to embrace experimentation, failure, and adaptation as part of their continuous professional development with the support of their PLNs. In sum, Trust et al. assert that varied outcomes of PLN connections were reflected by the participants, including ongoing achievement, improved teaching practice, and a willingness to take risks in their classrooms.

Golombek (2017) conducted self-inquiry research of a language teacher educator who examined her affective conflict concerning the guidance of a teacher learner's reflection journals during an ESL teaching internship. The data was gathered from the reflection journals of the teacher-learner and the responses of the educator, as well as the data from a retrospective interview with the teacher-learner about her perceptions regarding journal writing. Drawing from a Vygotskian sociocultural perspective, Golombek emphasizes that emotions convey insights into learners' motivation by reflecting their needs and perceptions of achievement or the potential for achievement. The findings revealed how identifying the source of emotional dissonance guided the educator to reshape her perception of the teacher-learner. Ultimately, the study advocates for a reconceptualization of teacher cognition that considers the interplay between the emotions and cognition of all participants, influenced by their engagements during the learning-to-teach journey.

Palermo and Thomson (2018) investigated the affective traits of educators within the framework of a large-scale assessment initiative. This mixed-method study was conducted in context of a comprehensive standardized evaluation program carried out by the Tennessee Department of Education from 2009–2012. An online survey, to gather participants' motivations, self-perceived abilities, and values associated with their PD, was utilized. The quantitative data supported with the data gathered through interviews regarding perceptions of participants' PD experiences. The study indicated that, regarding the motivations for professional development, intrinsic reasons were observed as the primary motivation for teachers' participation in PD. Additionally, teachers generally rated their belief in their PD-related abilities highly. According to the survey, many teachers felt more enthusiastic about participating in future professional development opportunities after their initial experience. They reported increased comfort with using constructed response items in their classrooms.

2.1.4. Actional Dimension of Professional Development

Actional dimension of professional development refers to the capacity to implement new ideas and skills in professional practice, connecting theory to practice through reflective teaching and experiential learning (Girvan et al., 2016). As mentioned before, the aim of teacher professional development is to elevate the standard of instruction and eventually enhance learning outcomes. It is fundamental that teachers put what they have learned into action. Shulman and Shulman (2004) describe adaptive action as the heart of teaching. According to their framework of 'Fostering a Community of Learners' (FCL) teaching imposes significant demands on the performance of teachers, including curriculum design and adaptation, management of concurrent rotations in classrooms, management of concurrent rotations in classrooms, formal and informal assessment of diverse students' complex understandings, integration of deep disciplinary knowledge with sustained motivation and student interactions, and utilization of technology in daily classroom activities (Shulman & Shulman, 2004).

Kennedy (2016) promotes the concept of "theories of action", which comprises two crucial components: identifying key issues in practice and formulating pedagogical approaches for teachers to implement new concepts. The theory of action regarding professional development (PD) revolves around its efficacy in aiding teachers to implement new concepts into their teaching

methodologies. In her review Kennedy defines PD theories of action that differ in their main concepts and how they assist teachers in applying those concepts. Kennedy notes that traditional PD often relies on prescriptions, providing teachers with clear guidelines on addressing challenges, which minimizes individual judgment. Yet, many popular PD programs also heavily depend on prescription. Another method of enactment is through strategies, which clearly outline their objectives. PD programs adopt specific objectives for teachers and provide a set of practices to achieve them. Unlike prescriptions, these practices come with a rationale to guide teachers in understanding when and why to use them. However, the PD's challenge is to ensure teachers understand the overall goal well enough to decide when to employ each strategy independently. Another common implemented method sees teachers even more autonomous. It suggests presenting a body of knowledge without prescribing specific actions. However, it remains passive, and it's unclear how it implements teaching practices. Therefore, teachers have significant discretion in deciding whether and how to use this knowledge in their teaching (Kennedy,2016).

2.1.5. Social Dimension of Professional Development

Teaching practice involves social connections which affect the profession in various ways. Therefore, the social dimension of the teachers' professional development has been investigated. Kaminski (2011) suggests applying a PD vision which decreases the chances for solitude and neglect while enhancing student outcomes. Trust et al. (2016) adopted a whole teacher development framework and investigated teachers' experiences related to their professional development after facilitating Professional Learning Networks (PLN). They analyzed their data considering different aspects of professional development. Their participants expressed several advantages of building networks of educators besides their local school communities, including overcoming isolation, gaining exposure to diverse perspectives, and collaborating with other educators. Trust et al.'s study proved that the social aspect of Professional Learning Networks helps overcome isolation, foster collaborative learning, and connect educators with global audiences.

Wenger (1998) proposed that individuals learn within "communities of practice," which encompass learning, meaning, and identity. Practitioners gain new information through experience and practice. Wenger asserts, this participation influences our actions, identities, and the way we understand those actions. Lieberman and Pointer Mace (2009) assert that learning is inherently

social, emphasizing the need for educators to foster connections, suggesting that the experience of collectively "struggling" in similar contexts aids teachers in mastering innovative teaching. Their article presents a model for professional learning programs that are inclusive, collaborative, and affordable. Public teaching enhances the quality of education, and all educators can gain from the exchange of the practices.

2.2. The Role of eTwinning in Professional Development

The eTwinning portal is an initiative of the European Commission, which aims to foster collaboration and facilitate connection among educators and students across Europe. The members of the eTwinning community connect and collaborate through online platforms, eTwinning events, webinars, and online courses where they can motivate their colleagues to improve student education (European Commission, 2021). The eTwinning portal provides a wide network with more than 937.000 teachers from 43 countries. This networking aims to encourage teachers to share experiences, exchange ideas, and learn new practices. Several studies investigated the impacts of eTwinning in education and highlighted that eTwinning is a promising medium to enhance teachers' qualifications and competencies in foreign languages and facilitate professional development (Başaran et al., 2020; Demir & Kayaoğlu, 2021; Fearn, 2022; Holmes & Sime, 2012; Holmes, 2013; Øverland, 2015).

According to Wenger (1998), communities affect members' sense of identity as they combine their personal and professional experiences within the shared narrative. The review of literature suggests that following their participation in eTwinning projects, educators perceive themselves as members of a global teacher community, which reshapes their professional identities and their self-images as innovative educators. eTwinning meets this need and offers teachers to co-create knowledge while working on collaborative projects with colleagues from diverse countries. Wenger's emphasis on continuous active engagement is in line with the eTwinning's ongoing, project-based nature. Teachers are active contributors (Wenger et al., 2002) of the eTwinning community who organize and shape cross-cultural projects. Wenger (1998) describes communities of practice as groups of people with shared interests or passion for their practice who enhance their skills by interacting regularly. The eTwinning platform's aims align well with the concepts of a CoP as it underscores intercultural online collaborations on shared projects. Therefore, Wenger's

framework is applicable for assessing the effects of the eTwinning Platform in terms of teacher PD, as it emphasizes social interaction, common aims, knowledge construction and collaborative development in supporting teacher growth (Wenger et al., 2002).

Başaran et al. (2020) aimed to investigate the impact of eTwinning projects on the professional growth of teachers. Researchers conducted semi-structured interviews with 24 teachers from different branches during the 2019–2020 academic year to collect data. The research focuses on teachers' reflections, which highlight practical themes such as collaboration, sharing, innovation, and technological growth. These themes correspond well with the broader goals of 21st-century education and suggest that eTwinning projects can serve as effective tools for professional learning, especially in fostering cross-border collaboration and digital literacy. Participants expressed willingness to participate in future projects. Accordingly, researchers concluded that eTwinning projects supported the professional growth of educators.

The qualitative case study of Acar & Peker's (2021) explores the objectives of teachers for utilizing the eTwinning platform and investigates its effects on professional and personal development of teachers. Participants of the study were 15 teachers who have successfully conducted eTwinning projects that received quality labels, targeting a group that has shown notable commitment to the platform and providing important insights into its effective application. They used semi-structured interviews and content analysis to gather and analyze data. Results indicate that teachers employed the eTwinning platform for various purposes such as designing projects, attending online courses, enhancing their professional growth, and fostering collaboration. This indicates that the platform appears to contribute significantly to both their professional competencies and personal outlook, including shifts in their attitudes toward teaching. These findings highlight the various advantages of eTwinning, suggesting that it serves not only as a tool for innovative practice but also as a catalyst for teacher motivation and self-reflection. Although the study offers compelling findings, it is somewhat constrained by its limited and non-diverse sample. Broader participation across subject areas, teaching levels, or regions could improve generalizability.

The platform was found to be significantly beneficial for teachers on both personal and professional levels. Aydin et al. (2022) investigated the attitudes of Turkish language teachers involved in eTwinning projects, as well as their fellow students who teach Turkish to international students studying in Türkiye. At the end of the six-week project, the teacher participants of the

project reflected that there was an increase in their professional competence. Defined as ‘digital natives’ (Ting,2015), students of this era have an already existing familiarity with the internet and technology, which necessitates revising learning environments and tools. Therefore, teachers seek ways to enhance their teaching abilities and implement information and communication technologies (ICT) in their classrooms. In this regard, the eTwinning portal offers solutions such as online webinars, project kits, and a useful platform for the use of technology. Several research studies report that the eTwinning teachers accept eTwinning projects as an innovative practice, offering them meaningful chances to improve their ICT skills (Çınar et. al., 2024; Demir & Kayaoğlu, 2021; Gökbulut, 2022; Kampylis et. al.,2012; Bocconi & Punie, 2012; Kostas & Ioannidou, 2023).

The case study by Demir and Kayaoğlu (2021) offers valuable scientific insights into understanding eTwinning projects. By examining the perspectives of both high school students (n=23) and teachers (n=2), the study offers a wide perspective on the educational potential of telecollaboration in enhancing language skills, ICT competencies, and intercultural awareness (ICC). The study utilized a mixed-methods approach, integrating participant observation, interviews, and document analysis with quantitative data. The findings reveal that eTwinning projects can be highly beneficial in improving students’ English proficiency, technological skills, intercultural competence, and motivation. The study also draws implications regarding teacher training. As the educational landscape continues to evolve, teacher training programs must adjust accordingly. In light of the varied roles that teachers fulfil in today’s educational practices and the multicultural characteristics of modern classrooms, these training programs must be made available. The study also acknowledges several challenges associated with implementing eTwinning in resource-limited settings.

In the same line, Başar & Ada (2023) aimed to examine the correlation between eTwinning projects and 21st-century education. According to the study educators aged 46 to 55 had advanced levels of both pedagogical content knowledge and subject matter expertise. In addition, teachers working at high schools had advanced levels of pedagogical content knowledge. The results revealed that primary school teachers aged 46 to 55 exhibited the highest degrees of Technological Pedagogical Content Knowledge (TPACK) to 21st-century skills. The authors also noted that according to the 2009 report from the OECD's International Teaching and Learning Survey, informal discussions aimed at enhancing teaching are commonly applied across most countries,

with over 90% participation. Likewise, eTwinning, considered a form of "professional development network," while not as widely participated in, is highly regarded for its impact on teacher development.

Abril & Palacios-Hidalgo (2023) also report that Collaborative Online International Learning (COIL) has been as a transformative educational approach leveraging technology, particularly beneficial for language education. Considering eTwinning as a COIL initiative, they conducted the study to investigate the role of eTwinning in improving the digital skills of pre-service language instructors from two European institutions, namely the University of Cordoba (UCO) in Spain and the University of Lower Silesia (ULS) in Poland. The researchers conducted a quantitative study, utilizing the questionnaire to assess the digital abilities of English as a Foreign Language (EFL) teachers (Huertas-Abril, 2020). The findings indicate positive attitudes towards their digital skills among participants from both settings, although statistically significant differences are observed concerning gender and university affiliation.

Gökbulut (2022) conducted a comparative mixed-methods study to evaluate Turkish teachers' digital literacy levels compared to partner countries of the European Union eTwinning network and to evaluate the impact of eTwinning projects on collaboration among students, teachers, and schools. The Digital Literacy Scale was utilized to gather quantitative data online from 181 teachers, including 106 from Türkiye and 75 from eTwinning member countries. Moreover, qualitative data from 111 teachers were analyzed to assess the impacts of eTwinning projects from the perspective of students, teachers, and schools. The findings suggest that the digital literacy levels of teachers from both Türkiye and the partner countries of the eTwinning network are high. It is noted that teachers in Türkiye exhibit higher digital literacy levels than their counterparts from the EU. Additionally, the research results indicate that participating in eTwinning projects helps teachers enhance their knowledge and skills related to technology use, pedagogical methods, and ICT tools. The researcher concludes that the study results are in line with the former objectives of the eTwinning initiative, which is to enhance international collaboration in Europe, while ensuring that educators have continuous online professional growth opportunities.

Lewis & Decuypere (2023) investigated the impact of digital educational platforms on teacher professionalism, which encompasses professional knowledge, discretion, and responsibility essential for effective teaching. The researchers aim to examine how the European

Commission's (EC) eTwinning platform for teacher professional development cultivates a type of professionalism that emphasizes project-oriented approaches and dependence on digital platforms. In this context, eTwinning is recognized as an ideal setting for placing project-oriented thinking as a central component of teacher professionalism. The authors propose that teacher learning and professionalism, characterized by project-oriented approaches, are shaped by the dynamics of digital platforms. It is noted that the eTwinning platform enables teachers to engage independently to achieve their own goals. This results in a fragmented approach where each individual builds their project time spaces, which transcend the individual projects they participate in.

As a result, eTwinning projects enable teachers to design their learning experiences on the platform, creating an environment that is not restricted by time or space. Furthermore, the development of teacher professionalism through projects (teacher-as-project) is accompanied by the educational impact of projects on the platform (project-as-teacher). Consequently, it is claimed that the profession of teaching is going through a transformation in eTwinning due to new ways of managing time. Nowadays, being involved in projects is essential for teachers to be considered professionals. However, this situation has led many teachers to feel overwhelmed and "out of time" as they are constantly working on completing an endless series of projects, each with its own timeline.

Kızılaslan and Başkan (2023) investigated the experiences of EFL teachers to reveal the benefits and challenges of eTwinning regarding its impact on professional growth. Researchers conducted semi-structured interviews with ten EFL teachers of secondary and high schools in Türkiye. The participants reported that eTwinning projects enhanced their professional development by providing access to an international network of EFL teachers and knowledge of pedagogical content. Regarding the recognition, the Quality Label awards are presented to teachers who conduct successful projects and disseminate them successfully, which motivates teachers to develop themselves professionally and participate in more projects. The study also revealed that eTwinning projects were seen as a developmental process, influencing EFL teachers' professional development across social, cognitive, and affective dimensions. Noteworthy impacts included social networking and peer learning, enhancement of technological pedagogical content knowledge and organizational abilities, and increased motivation and recognition. However, several drawbacks were pointed out by the participants including the time differences between countries,

the European Quality Label awards evaluation criteria, the prolonged duration of some projects, hesitant students and the reluctance of some international partners.

Fabbro et al. (2023) conducted research to evaluate the effects the eTwinning participation on the “innovative professional development” of Italian teachers. The framework of the study is presented under two subsections: professional growth and educative innovation, professionalism, and competencies of the eTwinning educator (an educator who participates in eTwinning activities). The authors point out that co-design can lead to a connection between group design and teachers’ professional growth. Collaborative design activities can contribute to professional growth, which can lead to further development in the field. The study reflected that teachers’ participation in the eTwinning community has played a significant role in improving their competencies related to teaching and Teacher Professionalism. The eTwinning community involvement has greatly contributed to the improvement of professional skills. Consistent with these encouraging patterns, the analysis of interviews highlighted the advantages of the eTwinning engagement across all competency areas. It is concluded that the implementation of eTwinning projects using the Project-Based Learning (PBL) model enables teachers to design education systematically and collaboratively. Participants also mentioned that colleagues can become more involved in eTwinning projects if they receive specific training on the integration of eTwinning in the school curriculum. Additionally, Fabbro et. al. noted that official recognition of this eTwinning learning experience is needed for in-service schoolteachers in Italy.

The eTwinning portal encompasses professional development activities such as online courses and enables teachers to participate in or start online learning events. In his research, Holmes (2013) used a specific learning event, ‘Exploiting Web 2.0: eTwinning and collaboration’. The study ran the event twice with a four-month interval, including various activities such as conducting collaborative projects and sharing the outcomes. The study’s findings indicated that participants’ digital and collaborative skills were improved. Additionally, they gained insights related to group characteristics and the role of moderators.

Kostas & Ioannidou (2023) aimed to examine the experiences of primary and secondary teachers who participated in eTwinning seminars in Greece concerning the suitability of the educational materials provided, the effectiveness of the trainers, the fulfilment of expectations, the way of addressing challenges during the seminar, communication among participants, and the impact on teaching methods and skills following their attendance. This quantitative study utilized

an online survey, and the participants were 753 in-service K-12 teachers. The results of the study showed that the majority of the participants reflected that the seminars met their former expectations and recognized the sufficiency of the educational materials and the professional development activities provided. The forum was revealed as the most utilized means of communication with both trainers and peers. Regarding professional development, many respondents mentioned that the seminars supported the development of ICT and metacognitive skills. Furthermore, participants concurred that they gained technical proficiency in utilizing Web 2.0 tools, confidence in managing student groups online, and acquired new teaching techniques. Moreover, the results of this study indicate that teachers' engagement in eTwinning seminars improves skill acquisition and capacity improvement, thereby creating opportunities that lead to the adoption of more effective teaching practices.

Milković et. Al. (2023) aimed to investigate the viewpoints of pre-service teachers regarding the reported benefits of eTwinning projects as identified by teachers. The participants were pre-service teachers from Italy, Spain, and Croatia, all of whom were members of the eTwinning project “ITE: Educ@ting for sustainability” during the academic year 2022/2023. The data was gathered utilizing a questionnaire including open-ended questions about their experiences and potential future collaborations. A total of 125 responses were gathered. The study's findings confirm that student teachers acknowledge the advantages of participating in projects such as eTwinning. Notably, most participants highlighted enhancements in selecting educational activities to enrich the learning environment, being open to international collaborations, and effectively collaborating with peers. However, slight disagreements were observed in two areas: working with student teachers from different countries to promote cultural and linguistic exchange, as well as fostering a spirit of collaboration with fellow educators.

Camilleri's (2016) study investigates the advantages and challenges associated with global education and intercultural exchange among students engaged in eTwinning projects across diverse European nations. The study involved semi-structured interviews with four teachers, and the data were analyzed thematically. The findings reflect that eTwinning is perceived by teachers as a valuable contributor to global education through intercultural interaction. The teachers emphasized the importance of integrating students' interests into the planning process to engage them. However, the study also revealed some challenges, such as a reluctance among teachers to participate, a lack

of digital skills, poor internet connectivity, and instances of racism or stereotypes among some teachers, which hindered interculturalism.

Çınar et al. (2024) conducted a mixed-methods study exploring how participation in eTwinning projects affects the professional development of 25 primary school teachers and the ICT competencies of their students at Kıyıboyu Primary School in Seyhan, Adana. Utilizing both qualitative interview forms and quantitative surveys, the study revealed that eTwinning projects enhance teachers' digital skills, teaching practices, and cross-cultural awareness. Besides, it was concluded that eTwinning projects enhanced students' motivation, use of Web 2.0 tools, and their interest in foreign languages. The study highlights significant student engagement with technology and cross-cultural communication, citing percentages such as 84% improvement in Web 2.0 usage and 72% increased motivation. This study used the eTwinning platform as a network-based learning environment and offered insights into its educational impact at the primary school level.

Online learning communities are accepted as beneficial sources of continuous professional development for teachers as they offer chances for genuine and autonomous learning (Cachia et. al., 2010; Duncan-Howell, 2009). Shulman and Shulman (2004) propose a framework for conceptualizing teacher learning within communities. This framework aims to enable us to comprehend the diverse methods which involve teachers actively in the learning process, as delineated by the 'Fostering a Community of Learners' (FCL) program. A competent FCL teacher is described as prepared, motivated, and capable of performing his or her understanding of FCL teaching. An accomplished professional is also expected to be adept in various aspects of practice.

Technological advances have offered new paths for many fields, including teacher professional development. Willing educators have been actively seeking new opportunities to adapt to the digital age and meet the evolving demands of their students. Unlike traditional professional development methods, which adopt a fixed one-size-fits-all attitude, educators utilize Professional Learning Networks (PLNs) at any time and from any location (Trust et.al., 2016). They could connect with colleagues worldwide, engage in discussions, share practices, and collectively grow through online networks. Educational networks are particularly adept at leveraging new technologies and institutional structures within their inherent flexibility, borderless nature, and innovative spirit, which enables them to create collaborative environments, focus their efforts effectively, and adapt their agendas to evolve with the needs of their participants (Lieberman, 2000).

Educators can cultivate their Professional Learning Networks (PLNs) through various means to meet their diverse interests, needs, and objectives for professional development (Trust et.al., 2016). Trust et al. also highlighted that educators could foster their PLNs through various means to meet their diverse interests, needs, and objectives for professional development. Several teachers in their study presented that their PLNs inspired them to become better educators and supported them through the process. Despite the variability in responses, most teachers mentioned that PLNs are online environments which enable their continuous learning and professional development, providing interaction with colleagues and resources. Riding (2001) suggests that teacher community networks provide an enriched environment conducive to collegial, reflective, and practice-based improvement by exchanging ideas, information, and teaching tips. Xue et al. (2019) examined how higher education teachers in China utilized WeChat to create an Online Community of Practice (OcoP). They aimed to enhance professional development in mobile technology-enhanced teaching. It was found to support teacher professional learning and led to positive transformations in their teaching practices.

Communities of practice are a form of professional learning community which promotes diverse expertise to contribute to the community's intellectual resources and create solutions for shared problems (Palincsar et. al., 1998). Kowalczyk-Wałędziak & Underwood (2021) examined teacher perceptions regarding the elements that make international communities of practice effective tools for teacher professional growth. The findings of their study revealed that teachers viewed international communities as a valuable platform for professional development because they provided various opportunities for improvement within their flexible nature. These communities created collaborative spaces for flexible, self-directed teams working on difficult subjects. Many interviewed teachers emphasized that belonging to an international community revived their enthusiasm and increased their willingness for growth. Additionally, cross-national exchange widened their worldviews and gained deeper intercultural awareness. Community of practice enabled participant teachers from various backgrounds to share teaching stories, reflect on practices, and provide mutual reflections. Teachers also had a chance to gain an understanding of other countries' education policies. Furthermore, Kowalczyk-Wałędziak & Underwood (2021) noted that via professional communities, the teachers formed new relationships with students and parents grounded in open communication.

He et. al. (2011) also suggested that all educators should develop an intercultural understanding, besides cooperative and reflective abilities. This preparation will enable teachers to engage in innovative processes that lead to change in schools and involve cooperative activities with colleagues, parents, and the community to advance efforts in equipping students with twenty-first-century skills. The eTwinning platform declares itself as a “Community for schools in Europe” (European Commission, 2021). Previous research revealed that a growing number of teachers across Europe work together on projects between schools at the national and international levels to share resources and develop their professional competence via the eTwinning platform (Cachia & Punie, 2012; Kampylis et al., 2012). Accordingly, a need to examine the perspectives of teachers from diverse countries who teach at various educational levels may provide a holistic view of the eTwinning platform’s effects on teacher professional development. In this regard, investigating the extent to which eTwinning projects improve the professional development of teachers will provide insights for the future design of teacher professional development.

In today's interconnected world, online learning communities play an important role in education by facilitating global knowledge sharing and collaboration. These virtual environments bring together diverse learners from various cultural backgrounds, offering opportunities to interact and exchange knowledge. However, the effectiveness of these communities relies significantly on intercultural awareness, the ability to navigate and respect cultural differences. Therefore, understanding the dynamics of online learning communities regarding intercultural awareness is crucial. By understanding these dynamics, educators can better design and facilitate online learning experiences that promote meaningful engagement and mutual understanding across cultures. Previous literature examines how cultural diversity influences communication dynamics, learning outcomes, and community building within online learning communities.

Wilson (2001) proposed that cultural differences occasionally cause misinterpretation of the messages among international members. Lacking cultural knowledge can lead to misunderstandings, difficulties in engaging in collaborative activities, and hinder building a community (Chase et al., 2002). Along the same line, Germain-Rutherford & Kerr (2008) introduced and analyzed various online instructional design models that prioritize cultural inclusivity and assert that Kramsch & Thorne’s study (2002) illustrates the issues observed in multinational asynchronous online discussions between American and French language learners were largely due to the unfamiliarity with each other's 'cultural genres' rather than individual

language deficiencies. Their findings suggest that a training in intercultural communication skills would have helped the students to successfully navigate through intercultural conversations. This emphasizes the necessity for individuals in a multicultural online community to gain strong intercultural communicative skills beyond mere linguistic proficiency and accuracy (Germain-Rutherford & Kerr, 2008).

Recognizing cultural gaps within educational settings highlights the critical importance of understanding and valuing diverse cultural perspectives. Effectively addressing these differences fosters an environment where meaningful intercultural communication can enrich learning experiences by promoting empathy, respect, and mutual understanding among participants from different cultural backgrounds. Wenger et. al. (2002) suggest addressing these cultural differences to foster effective learning communities. Lee et al. (2004) conducted a content analysis regarding distance education, identifying intercultural online learning as a significant trend. They discovered that despite technological and communication advancements enabling worldwide instructional delivery, psychological distance may arise from cultural differences.

Integrating culture into language teaching is important for developing both linguistic skills and cultural competence. According to Kramsch (1993), culture means belonging to a discourse community that shares common standards for perception, beliefs, evaluation, and actions. Byram et al. (2002) argue that language education should aim to foster intercultural as well as linguistic competences, preparing students for meaningful interactions with individuals from diverse cultures. This holistic approach not only enables learners to understand and accept different perspectives, values, and behaviors but also emphasizes that such interactions can be inspiring, enriching, educational, and transformative experiences. Barany (2016) suggests that learning foreign languages should be integrated into students' daily lives, extending beyond the confines of the classroom to engage with their personal experiences, enabling them to confidently navigate and interact with the broader world.

Online platforms provide opportunities for learners to engage with language and culture in interactive and diverse settings. Liaw (2006) demonstrates the efficacy of an online learning environment fostering English as a Foreign Language (EFL) students' intercultural competence by having them read articles on their own culture and share reflections with peers from different cultures. This approach not only helps students acquire different cultural meanings at lexical, syntactic, and textual levels but also enhances their understanding of cultural differences. Yang

(2013) conducted a study that formed a Computer-Supported Collaborative Learning (CSCL) community to involve diverse participants in intercultural communication. Through this platform, participants were able to interact and share insights, fostering a deeper understanding of diverse cultural perspectives and enhancing both their linguistic and intercultural competencies.

In language teaching, the goal is to support learners being capable of handling complexity and diverse identities, without making the generalizations that arise from perceiving someone through a singular identity (Byram et al., 2002, p. 7). In this context the CEFR emphasizes an intercultural approach to foreign language learning, prioritizing cultural activities and the preservation of cultural diversity being part of foreign language education (Dolmaci & Sezgin, 2021). According to the findings, it is recommended to concentrate on the "new culture" created by the interrelations of people with diverse backgrounds rather than focusing on the cultural elements of the target language. Lawrence (2013) emphasizes that the intercultural dimension in online language teaching/learning enhances twenty-first-century communication skills and supports the language learning process with a humanistic focus—a distinct advantage unique to language classes. However, engaging language learners in online collaborative exchanges does not automatically ensure intercultural or language learning outcomes; the effectiveness of these intercultural collaborations relies on the pedagogical framework that supports them.

Baker (2011) asserts that English as a global lingua franca necessitates moving beyond the idea of teaching a fixed language and cultural context as sufficient for successful communication. He provides a list to present what intercultural activities (ICA) in the classroom involve; examining the connections among culture, language, and communication through various approaches: exploring local cultures, analyzing language learning materials, examining media and arts via both online platforms and traditional mediums, utilizing cultural informants, and participating in intercultural communication, whether face-to-face or electronically. In Intercultural Communicative Competence (ICC), the emphasis is not on assessing the proficiency required for successful communication resembling that of 'native speakers', but rather on facilitating communication between participants from diverse linguacultural backgrounds (Baker, 2015).

Chen (2016) utilized Byram's model of intercultural communicative competence to analyze learners' natural communication on a social networking site (SNS). It reveals that learners develop intercultural knowledge and attitudes collaboratively with other online participants. The research underscores that SNSs functioned as a valuable tool for learners to document their cultural

experiences and engage in real-time reflections with multilingual and multicultural users. Üzümlü & Yazan's (2020) research, which was based on Byram's (1997) framework for intercultural communicative competence (ICC), explored the intercultural development of 48 teacher trainees engaged in a telecollaborative project between Türkiye and the USA. Participants reported that cultivating ICC is a challenging process. However, the study concludes that telecollaboration is an efficient method for helping teacher trainees reflect on their own cultural perspectives and improve their ICC.

Hajisoteriou et al. (2018) emphasize that it is crucial to adopt a more efficient training model within the framework of continuous professional development, ensuring that teachers are equipped to address the social challenges associated with globalization. Therefore, they designed an online platform aimed at enhancing educators' intercultural knowledge. The study results suggest an improvement in pedagogical practices related to cross-cultural education and an increase in collaborative practices among educators. By actively engaging with this platform, teachers gained chances to exchange insights and perspectives on their cross-cultural practices. Mak et al. (2014) aimed to assist academics in implementing curricular interventions that fostered an inclusive educational environment and facilitated intercultural learning. Their project also highlighted the necessity of offering PD opportunities on cultural differences to enhance intercultural communication among academics.

Telecollaboration in education can be described as the use of digital communication and computers to improve learning by facilitating social interaction and teamwork, thereby expanding the learning experience beyond the limits of traditional classrooms (Dooley, 2017). By moving beyond the physical confines of conventional classrooms, telecollaboration enables students to engage with peers from diverse linguistic and cultural backgrounds in a "third space," where they can practice the target language in real-life contexts. The use of telecommunication in language teaching has garnered attention from researchers. Previous studies have primarily focused on the relationship between telecollaboration and intercultural awareness. As a result, these studies have been categorized based on their focus. Some of them were reviewed in the previous section due to their primary emphasis on intercultural awareness.

Lee (2009) examines a Spanish-American telecollaborative project and reports on how students produced blogs and podcasts utilizing task-based activities and how these tools supported intercultural interactions. Findings indicated that the use of blogs and podcasts together provided

significant advantages to L2 learners. While collaboratively working on authored blogs, intercultural students exchanged ideas with their peers in a social learning platform. The study underscores that having interpersonal interactions and committing to online projects are important for cross-cultural exchanges.

Researchers also investigated the impacts of participating in telecollaborative projects on teachers' professional development. O'Dowd (2013) investigated the abilities, beliefs, and knowledge that a foreign language teacher needs to conduct an online cross-cultural exchange successfully. The study adopts the Delphi technique, gathering ideas from specialists and senior educators to reach an agreement on the essential telecollaborative abilities, knowledge, and beliefs. By combining the literature review with insights from over 60 educators and specialists, a schema was developed containing four sections: organizational, pedagogical, and digital competencies, as well as attitudes and beliefs. The model demonstrates that telecollaboration necessitates intercultural abilities and beliefs not only from students but also from the teachers who facilitate these projects.

Gajek (2017) analyzed over 1,800 eTwinning projects submitted for the eTwinning National Quality Label undertaken in Polish schools. The aim was to highlight the transformative role of distance learning models and their benefits to the educational context. The study revealed that the role of teachers in integrating telecollaborative work into the curriculum is crucial. Teachers gain additional professional benefits from collaborative work, such as satisfaction, experience, and confidence, amongst their primary roles as organizers, guides, motivators, and sometimes even controllers. Notably, some projects also emphasize aims focused on teachers. Teachers seek to benefit professionally from participating in the community of practice by sharing practices and enhancing their teaching.

Bozdağ (2018) conducted a case study of an eTwinning project between a German and a Turkish school to gain insights into telecollaboration projects and their integration within the current school cultures. The study utilizes participatory observations, focus groups and interviews with the teachers. In contrast to Gajek's (2017) research, the article underscores that eTwinning projects are affected and constrained by teachers' perceptions of intercultural communication and their tendencies towards teacher-centered education. The author states that overcoming the transformation of national school cultures and altering teachers' perspectives and practices are key challenges to creating a more participatory and enriching international telecollaboration experience

in the classroom. Therefore, she suggests addressing these challenges and providing support for teachers, considering the potential of telecollaboration projects to enhance students' learning experiences.

Pfingsthorn et al. (2019) explored student teachers' perceptions of their professional identity related to their intrinsic motivation for participating in online collaboration with peers from different countries. The study gathered data from 134 student teachers across Poland, the Czech Republic, and Germany using questionnaires featuring closed-ended questions administered on paper. The findings revealed generally positive opinions about potential outcomes of cross-cultural telecollaboration, including creating social connections with peers, benefiting from cultural and linguistic diversity, establishing a safe learning environment, setting better professional development goals, and evaluating one's professional growth. Wu (2021) reviewed 36 studies from 2009 to 2019 to enhance language teacher professional development through telecollaborative learning and identified six key themes. The review highlights unique opportunities presented by telecollaborative learning, including technology-supported learning, online engagements, and intercultural learning. These aspects tend to interest more scholars and policymakers who aim to promote the internationalization of teacher education, integrate technology in language education, and advance intercultural awareness.

Han (2023) aimed to investigate the perceptions of in-service English language teachers in South Korea and Taiwan regarding interculturalism. An 18-week intercultural telecollaborative professional development (PD) program was designed specifically for the study. Telecollaboration served as the tool for this PD program, enabling intercultural communication between educators through online learning tools. The findings reveal that teachers' understanding of interculturality develops as they navigate the challenges that emerge during telecollaboration and illustrate how telecollaboration can be a powerful tool for fostering this type of learning. Yeh & Heng (2022) conducted a study by creating a telecollaborative platform for EFL students in a Taiwanese university. The findings have shown that a significant majority of EFL learners, around 97%, believe that telecollaboration can be integrated into language exchange programs. This approach enhances language proficiency through interactive practice and learners' confidence by allowing them to engage with different perspectives.

Emir & Yangın-Ekşi (2024) systematically reviewed telecollaboration research that took place between 2013 and 2023, focusing on English language teacher education. The review

revealed that studies focused on telecollaborative skills, the design and execution of tasks, and the difficulties related to telecollaboration within teacher education. The findings emphasized telecollaboration's role as a digital environment for enhancing pedagogical abilities, such as intercultural competence, techno-pedagogical skills, and practice. Moreover, findings demonstrated telecollaboration's effectiveness in connecting theory and its practical application by raising awareness and enabling the integration into teaching practices.

Review of literature reveals that there is a need to investigate professional development tools which are accessible, self-regulated and have a collaborative nature, it is worthwhile to investigate the advantages of the eTwinning portal for the professional growth of teachers from diverse countries who teach at various educational levels.

CHAPTER III

METHODOLOGY

This chapter starts by providing information about research design. Next, the chapter introduces the participants and sampling, outlining the selection criteria. The development process of the data collection instruments is also explained in detail. The chapter then presents data analysis and integration procedures, including statistical techniques for quantitative patterns and thematic coding for qualitative insights. Reliability and validity of the study were ensured through processes of expert views, piloting, and triangulation. Lastly, the ethical considerations were presented, underscoring consent forms, confidentiality, and credibility of the study. This methodology served well to address the research questions and draw meaningful conclusions.

3.1. Research Design

This study employed an explanatory sequential mixed-methods research design because of its ability to draw on both qualitative and quantitative research and minimize the limitations of both approaches (Creswell & Creswell, 2017). Mixed-methods research design is accepted as a valuable means to investigate complex systems, examining both the processes and the outcomes (Yin, 2006). This study aimed to answer two research questions below:

1. What are the perceptions of English language teachers who participate in eTwinning projects in terms of professional development?
2. In what ways do educators utilize the eTwinning platform to advance their professional development?

3. How do English language teachers describe the perceived benefits and challenges of participating in eTwinning projects?
4. What are English language teachers' experiences with the eTwinning platform regarding their professional development?

The qualitative phase aimed to explain, elaborate on, and add depth to the patterns identified in the quantitative findings. Integration of data occurred at the interpretation stage, where quantitative and qualitative findings were compared and connected to develop a more comprehensive understanding of English language teachers' professional development through eTwinning participation. Quantitative data were collected via an online questionnaire and analyzed using both descriptive and inferential statistics to identify overall trends and group differences across four key dimensions of professional development: cognitive, affective, social, and actional and the utilization of the platform for professional development. While these findings allowed for a broad comprehension, they provided limited insight for the underlying reasons behind participants' responses.

Qualitative data were gathered through two sources: open-ended responses from the questionnaire and focus group interviews. Each qualitative data source was analyzed independently using thematic analysis following Braun and Clarke's (2006) six-step framework. The open-ended responses provided reflections from a broader sample, whereas the interviews provided detailed narratives from a smaller group of participants. The integration of qualitative findings was accomplished by comparing and examining for similarities, differences, and complementary patterns. Themes that appeared consistently across both sources were considered especially robust, while themes unique to one source were interpreted as offering additional insights.

The integration of quantitative and qualitative data presented in the discussion section which was achieved by comparing and aligning the findings from the quantitative phase with the themes generated from qualitative sources to provide a deeper and more comprehensive understanding of English language teachers' professional development through the eTwinning platform. By triangulating the data, the study aimed the validity and robustness of the overall findings.

3.2. Participants and Sampling

The participants of this study were English language teachers who had participated in at least one eTwinning project. The data were collected through an online questionnaire using Google Forms. To recruit participants, the snowball sampling method was employed. As described by Parker et al. (2019), this approach begins with the identification of initial participants who meet the study's inclusion criteria and continues as these individuals refer others from their professional networks. This method was deemed appropriate for accessing a wider and more diverse group of educators involved in eTwinning activities.

The majority of the participants were from Türkiye (n=78), followed by smaller groups from Spain (n=6), Croatia (n=4), Poland (n=3) and Jordan (n=2) and one participant each was from Macedonia, Portugal, France, Moldova, Serbia, Bulgaria, Italy, Romania, and the United Kingdom. This wide distribution contributed to the inclusion of diverse teaching experiences, educational contexts, and cultural backgrounds. Most participants (68%) had 5 or more years of teaching experience, and around 45% had participated in three or more eTwinning projects. Participants were predominantly female (88.2%), with only 11.8% identifying as male. The breakdown of the participants' demographics is presented in Table 1.

Table 1

Characteristics of the surveyed participants

Feature	Group	Number	%
Country	Türkiye	78	%76.5
	Spain	6	%5.9
	Croatia	4	%3.9
	Poland	3	%2.9
	Jordan	2	%2.0
	Portugal	1	%1.0
	France	1	%1.0
	Moldova	1	%1.0
	Macedonia	1	%1.0
	Serbia	1	%1.0
	Bulgaria	1	%1.0
	Italy	1	%1.0
	Romania	1	%1.0
	UK	1	%1.0
	Total	102	-
Gender	Male	12	%11.8

	Female	90	%88.2
Age	25–34	13	%12.7
	35–44	62	%60.8
	45+	27	%26.5
Education Level	BA	57	%55.9
	MA	42	%41.2
	PhD	3	%2.9
Teaching Level	Primary	22	%21.6
	Secondary	39	%38.2
	High School	41	%40.2

In terms of age, the most significant group was between 35–44 years old (60.8%), followed by those aged 45+ (26.5%), and 25–34 years old (12.7%). Regarding educational background, 55.9% held a bachelor’s degree, while 41.2% had an MA degree, and a minor percentage (2.9%) held PhDs. Participants were involved in teaching at different educational levels, with 40.2% working in high schools, 38.2% in secondary schools, and 21.6% in primary schools.

In terms of professional experience, the participants were fairly distributed across different career stages. The largest group had 15+ years of teaching experience (42.2%), followed by individuals with 11–15 years (34.3%). A smaller percentage included those with 6–10 years (21.6%) and those with 1–5 years (2.0%). Regarding eTwinning involvement, most participants had engaged in 1–5 projects (67.6%), while 21.6% had participated in 6–10 projects, and 10.8% were involved in more than 10 projects. When asked about the number of eTwinning project organizations, 33.3% reported they never organized or ran any projects. Most participants (55.9%) created and run 1–5 organizations, while 10.8% run more than 6 organizations. Table 2 displays the professional experience and eTwinning involvement level of the participants.

Table 2

Professional Experience and eTwinning Involvement

Feature	Group	Number	%
Years of Service	1–5 years	2	% 2.0
	6–10 years	22	%21.6
	11–15 years	35	%34.3
	15+ years	43	%42.2
eTwinning Participation	1–5 Projects	69	%67.6

	6–10 Projects	22	%21.6
	10+ Projects	11	%10.8
eTwinning Organization	0 (No organizations)	34	%33.3
	1–5	57	%55.9
	6+	11	%10.8

At the conclusion of the questionnaire, participants were invited to volunteer for follow-up focus group interviews. Totally, 49 teachers expressed willingness to participate and were contacted via email to confirm their consent and availability. Using Google Sheets, participants selected their preferred time slots, and ultimately, 11 teachers confirmed their participation. The participants were from Türkiye (n= 9), Croatia (n=2) and Poland (n=1). Two focus groups were formed, each comprising teachers from at least two different countries and representing various educational levels.

3.3. Data Collection

Two data collection instruments were employed: an online questionnaire to reach a general understanding of the teachers' perspectives, and the focus group interviews to obtain deeper insights into the research questions (Phakiti & Paltridge, 2015). The questionnaire link was disseminated between February 20, 2024, and September 9, 2024, through multiple digital platforms, including WhatsApp groups of eTwinning and ESL teachers, eTwinning platform groups, and the LinkedIn eTwinning Turkey Group. It reached approximately 2,000 teachers, and participants were encouraged to further share it with colleagues engaged in eTwinning projects. A total of 90 English language teachers voluntarily participated in the questionnaire. After the final piloting phase, during which no significant changes were needed, the pilot data were included in the overall dataset, bringing the total number of participants to 102. These teachers represented a wide geographical distribution across Europe and surrounding regions.

Focus groups were chosen to gather a rich range of perspectives without pressuring participants to reach consensus (Krueger & Casey, 2015). A total of 49 participants volunteered for the focus group interviews and were sent emails to choose their preferred time slots. In addition, the teachers received information about the interview procedures and consent forms for their

participation. 11 teachers confirmed their participation in the interviews. The focus group interviews were held via Zoom, each lasting approximately 45–60 minutes. All interviews were recorded with participants' consent, and detailed notes were taken by the researcher during the sessions.

3.3.1. The Development of the Questionnaire

Following Gilham's (2008) recommendations, the development of the questionnaire began with defining the overarching aims of the study. A comprehensive review of the existing literature provided insights into the construction of the questionnaire. Research indicates that professional development of teachers encompasses cognitive, actional, emotional and motivational dimensions (Hoekstra & Korthagen, 2011; Holmes, 2013; Kızılaslan & Başkan, 2023; Postholm, 2012; Zhang, et al., 2021). Kızılaslan and Başkan (2023) found that eTwinning projects contributed to EFL teachers' professional development across social, cognitive, and affective domains. Accordingly, the first section of the questionnaire—designed to address the first research question—was structured to explore cognitive, affective, actional, and social aspects of professional development.

To ensure the credibility of the study, the questionnaire was developed in accordance with the procedures outlined by Dörnyei (2010) which involves initial piloting, expert review and final piloting steps. It begins with a consent form and comprises five sections. The first section of the questionnaire aims to determine how participating in eTwinning projects has affected participants' professional development. This section involves four subsections: cognitive aspect, affective aspect, actional aspect and social aspect. The second section of the questionnaire intends to explore in what ways educators utilize the eTwinning platform to advance their professional development. In Section 3, participants' views on the contribution of eTwinning project participation to their professional development were explored through an open-ended question. Section 4 gathers demographic information. As Dörnyei (2010) suggests, placing personal questions at the end helps maintain participant engagement. Finally in Section 5 participants are invited to volunteer for a follow-up focus group interview. The estimated completion time for the questionnaire was 15 minutes.

A five-point Likert scale was adapted to measure participants' perceptions, allowing them to express the degree of their agreement with each statement. This method, known as the summated

ratings approach (Komorita, 1963), assigns numerical values to responses, which are then summed to produce a total score. Clear explanations were provided for each scale point, and specific instructions were included to minimize misunderstandings, as recommended by Dörnyei (2010).

Following the identification of four sections, items were written clearly focusing on ambiguous and negative constructions. The item pool underwent a review process, resulting in the development of the initial draft of the questionnaire, which was subsequently administered to a pilot group comprising four volunteers: one specialist and three experienced English Language Teachers. Feedback regarding the clarity of sentences, suitability for research, structure of the questionnaire, and the time required to complete were all positive.

The estimated time to complete the questionnaire was revised to 10 minutes based on feedback. After incorporating the latest revisions suggested by the study supervisor, the questionnaire was submitted to two lecturers for expert review. Based on the feedback item b1 was removed as it overlaps with d1. The wording of Item 8 in Section 4 was revised to 'organized and run' to enhance clarity, and an additional option '0' was included. Items b3 and b5 were revised to eliminate double-barreled phrasing. Finally, Item 1 in Section 2 revised to ensure clarity of meaning because seemingly small changes in wording can potentially lead to significant variations in responses (Bradburn et al., 2004).

The revised version of the questionnaire was piloted with 12 participants (Croatian (n=1), Spanish (n=1), Turkish (n=10) considering the fact that piloting the questionnaire at different stages of development involves testing it on a sample of individuals resembling the target demographic for which the instrument was designed (Dörnyei, 2010). The aim is to collect feedback on how well the instrument functions and how closely it aligns with its intended purpose. Participants for piloting were selected based on their similarity to the target audience in terms of teaching experience, eTwinning projects involvement, and teaching levels. The responses indicated that the items functioned consistently, and a minor structural adjustment could be made.

3.3.2. The Construction of Focus Group Interview Questions

Focus groups can offer insights into individuals' ideas and emotions regarding specific topics while highlighting the differing viewpoints among different groups (Rabiee, 2004). To encourage participants to share in-depth and valuable opinions, the focus group interview questions

were meticulously designed to align with the study's objectives and elicit in-depth insights. Following a comprehensive review of the relevant literature, the researcher developed a set of interview questions and subsequently shared them with an academic expert for evaluation, who identified two items not specific to the eTwinning project participation. To enhance validity, these items were removed.

The expert also suggested adding a question to evaluate whether participants' expectations were met (item 3); to include questions regarding the challenges encountered (item 6); to inquire about future intentions to involve in eTwinning projects (item 7), and to revise the wording of item 4. After incorporating these suggestions, the researcher shared the revised version with another academic expert and the thesis supervisor. Both agreed that the questions were appropriate and aligned with the research questions.

3.4. Data Analysis

3.4.1. Quantitative Analysis

The quantitative data obtained through the questionnaire were analyzed using Statistical Package for the Social Sciences (SPSS) Version 26. Firstly, responses from Google Forms were exported to Excel for data cleaning and organization. Then, the data were imported into SPSS for further analysis. Descriptive statistics were first conducted to summarize participants' demographic information and overall trends in the survey responses. Following this, inferential statistical evaluations were conducted to investigate relationships and differences across groups.

Normality was assessed using the Kolmogorov-Smirnov and Shapiro-Wilk tests. The results of the normality tests yielded p-values of 0.000 and 0.001, which are below the significance threshold of $p < 0.05$. Therefore, it was determined that non-parametric tests would be more suitable for analyzing the differences between the groups under investigation. Non-parametric tests, including the Mann-Whitney U test and the Kruskal-Wallis test. These tests were chosen to evaluate differences between groups based on variables such as education level, teaching level, years of experience, and geographical region. The results of these analyses will be presented in the findings chapter, supported by relevant excerpts from qualitative data where necessary.

3.4.2. Qualitative Analysis

Qualitative data were analyzed using thematic analysis as it is well-suited for identifying and interpreting recurring patterns and insights from the textual data. This approach was used for its flexibility and appropriateness to obtain descriptive and interpretative results in code selection and theme development process. According to Kiger and Varpio (2020), thematic analysis can be used within various theoretical and epistemological frameworks and is applicable across wide range of research questions, designs, and sample sizes. Regular review and refinement of themes were followed to ensure robustness. Emerging themes were assessed for their relevance and their capacity in capturing significant patterns in participants' response.

A total of 95 responses were gathered from open-ended question. Twelve of the responses consisted solely of "yes" without any further explanation, so 83 responses were systematically examined using qualitative coding. The data gathered from open-ended question and two focus group interviews were analyzed utilizing thematic analysis. The Braun and Clarke's six-step framework was followed. First, responses were read thoroughly, and repeated phrases and ideas were noted. Second, initial codes were generated, including terms like "peer learning," "global networking," and "collaboration." In the third step, related codes were organized into broader themes, such as "international collaboration," "digital competence," and "increased motivation." The fourth step involved reviewing the themes to ensure they accurately represented the entire dataset. Next, the themes were named and defined. Finally, a report was created based on the findings addressing the qualitative research questions.

Focus group interviews were transcribed verbatim, and the coding was conducted based on both transcripts and researcher's field notes taken during the interviews. This dual approach ensured the inclusion of all relevant details and facilitated a comprehensive analysis. Themes were developed by identifying most frequently occurring and meaningful codes, ensuring that they represented the collective experiences and perspectives of the participants.

Initial codes were generated inductively from participants' responses. These codes reflected repeated ideas and key points shared throughout the data. To guarantee strong results, the coding process was iterative, including repeated cycles of continuous reviewing, refining and consolidating the themes. The themes were assessed for their internal coherence and capacity to represent the significant patterns emerging from the data. The researcher revisited and fine-tuned

the thematic structure to enhance clarity and applicability and alignment with the research questions.

Qualitative data from open-ended questionnaire responses and focus group interviews were integrated to provide a comprehensive understanding of participants' perspectives. Both generated valuable insights into teachers' experiences related to the eTwinning participation. The open-ended responses captured brief insights from a diverse group of participants, while the interviews offered more detailed and contextual narratives. In the presentation of findings, themes are organized holistically, with illustrative quotes from both sources to underscore common patterns, reinforce the interpretation of the findings. This integrative approach facilitated cross-validation of the findings and enhanced the credibility of the qualitative results.

3.5. Reliability and Validity

Several measures ensured the reliability and validity of both quantitative and qualitative data. For the quantitative questionnaire, reliability was prioritized by crafting clear and concise questions, limiting the types of questions included, and utilizing standardized Likert scale format with explicit instructions. To ensure content validity three experts in the field reviewed the questionnaire statements. Their feedback led to revisions to wording, structure, and question clarity. Dörnyei's (2010) procedures which include identifying and correcting ambiguous items and confirming platform usability and estimated completion time were followed for piloting. Reliable tools (Google Forms and SPSS) were used to collect and analyze the data. Furthermore, non-parametric inferential tests (Mann-Whitney U and Kruskal-Wallis) were employed because of the non-normal distribution of data. They were considered appropriate for comparing groups under such conditions by supporting reliable group analysis.

For qualitative data, reliability was ensured using clear and concise interview questions. Three experts in the field offered valuable feedback on the applicability of the questions. Their insights enabled to identify any potential biases and ensured that the questions were relevant and appropriate for the target audience. During the thematic analysis procedures, Braun and Clarke's (2006) six-step framework were followed. To ensure the reliability of data coding, intercoder agreement procedure was conducted for both open-ended question responses and focus group

interview responses. A female instructor of English, with 18 years of experience at a preparatory school of a State University in Ankara, assisted as an independent coder. Randomly selected responses were shared with the independent coder, within defined themes and codes. A total of **28** responses gathered from open-ended question responses, representing **34%** of the entire dataset of **83**, were independently coded by the second coder. After the comparison of coding sheets, the intercoder reliability was calculated using percentage agreement. The analysis yielded an accuracy rate of **89%** for open-ended question responses. The same coding protocol was followed for the data from focus group interviews. A total of **15** responses, representing **20%** of the entire dataset of **74**, were independently coded by the independent coder. The comparison of coding sheets was done by the researcher. It was revealed that intercoder agreement reached **93%**, highlighting a high level of consistency in the application of codes. This concordance underscores the robustness of the findings and indicates a strong consistency in the evaluative criteria applied during the coding phase. Discrepancies were resolved through discussion and consensus.

The integration of qualitative findings with quantitative results allowed for triangulation, which increased the overall validity of the study by cross-verifying insights from different data sources (Creswell & Plano Clark, 2018).

3.6. Ethical Considerations

The research was carried out following the ethical code of practice of the Social Sciences University of Ankara. An ethical statement that summarizes the objective of the questionnaire, how the data would be treated was provided. Participants had to confirm their consent before they could continue. The participants of the focus group interviews also received an email which provided detailed information about the study's purpose and the procedures before data collection. The link for their consent was also sent via email. Consent for focus group participation was obtained via (docs.google.com). The consent form was adapted from the sample provided by Clemson University Institutional Review Board (Clemson University, n.d.). Participation was entirely voluntary, with participants informed that they could withdraw from the study at any point without any consequences. This was pointed out during the consent process.

All data have been anonymized to protect participants' identities. When presenting the data, pseudonyms which preserve the gender and country of origin of the participant and always refer to

the same person were utilized. Video recordings of the focus group interviews were securely stored and deleted after the transcription process. Questionnaire and interview questions were carefully developed to be culturally neutral and respectful of diverse perspectives, due to the multicultural nature of the participants in eTwinning projects. This study aimed to present a credible and trustworthy investigation of the effects of eTwinning projects on teachers' professional development by implementing certain measures to guarantee reliability, validity, and ethical integrity.



CHAPTER IV

FINDINGS

This chapter provides the results gathered from the analysis of the quantitative and qualitative data. The first section concentrates on the questionnaire results, examining the effects of participation in the eTwinning projects across four dimensions: cognitive, affective, actional, and social. Besides, the participants' experiences and perceptions regarding the utilization of the eTwinning platform are presented. The second section describes the qualitative results derived from open-ended responses and two focus group interviews. Findings gathered through thematic analysis supported the quantitative data, providing a deeper understanding of how participants perceived their engagement and learning within the eTwinning community.

The mixed-methods approach enabled triangulation, showing the consistency between statistical data and participants' reflections. This method allowed this study to highlight the multifaceted nature of professional development in an online learning community.

4.1. The Results of the Questionnaire for the First Research Question

Quantitative data were analyzed using SPSS 26, with descriptive and inferential statistics providing insights into participants' experiences with eTwinning projects. The first section of the questionnaire is designed to determine how participating in eTwinning projects has affected participants' professional development. The first section of the questionnaire involves four subsections: cognitive aspect, affective aspect, actional aspect and social aspect. The findings will be presented under these subsections.

4.1.1. Effects on Cognitive Aspect of Teacher Professional Development

The study evaluated the impact of the eTwinning Program on teachers' cognitive development. The results of the study indicate that participants experienced growth in various areas, including teaching methodologies, information, and communication technologies (ICT), and innovative teaching strategies. The eTwinning Projects significantly impact the teachers' cognitive professional development. Notably, "the creation of environments for exchanging ideas, experiences, and resources" had the highest mean score ($M = 4.47$, $SD = 0.96$), participating in eTwinning projects fosters knowledge sharing and collaboration among teachers.

Furthermore, aspects such as "deepening of knowledge in ICT" ($M = 4.42$, $SD=0.94$) and "expansion of cross-cultural knowledge and understanding" ($M = 4.43$, $SD= 0.95$) also received high scores, indicating that the eTwinning projects play a crucial role in equipping teachers with digital skills and promoting intercultural competence. Table 3 shows the mean (M) and standard deviation (SD) values for different aspects of cognitive development.

Table 3

Cognitive Development Aspects

No	Statements Engaging in eTwinning Projects	Mean (M)	Standard Deviation (SD)
1	has expanded my understanding of teaching theories and methodologies.	4,15	1,03
2	has deepened my knowledge of information and communication technologies (ICT).	4,42	0,94
3	has encouraged me to explore new research and literature in education.	4,25	0,99
4	has provided opportunities to learn innovative teaching strategies and techniques.	4,36	0,92
5	has created environments to exchange ideas, experiences, and resources with national and international colleagues.	4,47	0,96
6	has facilitated my understanding of student learning.	4,16	0,98
7	has triggered curiosity and a desire for continuous development.	4,38	0,94
8	has expanded my cross-cultural knowledge and understanding.	4,43	0,95

A positive perception of eTwinning projects' impact on cognitive development among participants was observed. The majority of respondents either agreed or strongly agreed that the eTwinning Program (ETP) contributed positively to their professional development. Particularly, 81.4% reported that ETP improved their understanding of teaching theories. 83% indicated that it encouraged research exploration. Moreover, 91% of respondents thought that eTwinning projects

provided opportunities to learn innovative teaching strategies, and 94% found it useful for exchanging ideas with colleagues. Understanding of student learning was also positively perceived, with 87% agreeing or strongly agreeing.

The eTwinning Projects was believed to be a strong motivator for continuous development, with 92% of participants acknowledging their role in fostering curiosity. Lastly, the projects significantly improved cross-cultural knowledge, with 90% of respondents agreeing or strongly agreeing.

4.1.2. Effects on Affective Aspect of Professional Development

This section describes the analysis of the affective aspects of professional development. The mean scores for all aspects are above 4.0, which indicates a generally positive impact of the eTwinning projects on affective development. The table 4 presents the mean (M) and standard deviation (SD) values for different aspects of affective development.

Table 4

Affective Development Aspects

No	Statements Participating in eTwinning projects...	Mean (M)	Standard Deviation (SD)
1	has provided peer support and encouragement for my professional growth.	4,29	0,93
2	has enabled me to receive positive feedback for making a positive impact on my students' education.	4,25	0,94
3	has helped me to grow my empathy and understanding through interacting with educators from diverse backgrounds.	4,28	0,92
4	has reignited my passion for teaching and learning by engaging in innovative activities.	4,25	0,96
5	has been motivating because of the praise and recognition I've received from my colleagues.	4,02	1,08
6	has created a sense of purpose and excitement in my teaching practice.	4,29	0,95
7	has inspired me to move beyond my comfort zone and embrace new opportunities for professional growth.	4,39	0,94

The mean scores for all aspects are above 4.0, which indicates a generally positive impact of the eTwinning projects on affective development. The highest mean score is seen in "*Comfort*

Zone Expansion" (4.39), while the lowest is observed in "*Motivation from Colleagues*" (4.02). Standard deviations range from 0.92 to 1.08, suggesting that the responses are relatively consistent, with some variability. Most participants either "Agree" or "Strongly Agree" with the positive impact of the eTwinning Projects on affective development. The highest level of "Strongly Agree" responses is seen in "Comfort Zone Expansion" (56.9%), while the lowest is in "Motivation from Colleagues" (40.2%). The highest percentage of neutral responses is for "Motivation from Colleagues" at 15.7%, indicating a varied perception in this area.

Overall, participating in eTwinning projects has had a generally strong positive impact on participants' affective development. Specifically, it has helped them move beyond their comfort zones and feel a sense of purpose in their teaching practices. However, colleague motivation appears to be a relatively weaker area, which requires further attention.

4.1.3. Effects on Actional Aspect of Professional Development

This section describes the analysis of the actional aspects of professional development. The results of the study demonstrate that participation in eTwinning projects positively influenced teachers' actional professional development. The mean scores for all six aspects exceeded 4.0, signaling a high level of agreement among participants. The highest mean score of 4.32 is seen in the Integration of ICT tools, indicating that teachers are integrating more ICT tools into their instruction. Additionally, a strong mean score of 4.26 suggests that eTwinning project participation has improved teachers' confidence in sharing and discussing teaching strategies. Table 5 summarizes the descriptive statistics for the actional aspect of professional development in eTwinning projects.

Table 5

Actional Development Aspects

No	Statements After participating in eTwinning projects,	Mean (M)	Standard Deviation (SD)
1	I have utilized the knowledge and skills obtained from eTwinning projects in my teaching practices.	4,26	0,91

2	I have observed noticeable improvements in student engagement and learning outcomes in my teaching practices.	4,12	0,93
3	I have integrated more ICT tools into my teaching compared to before.	4,32	0,91
4	I have increased confidence in exchanging teaching practices with educators from colleagues across Europe.	4,26	0,90
5	I have become curious about innovative teaching methods and pedagogical approaches.	4,20	0,99
6	I have designed my lesson planning with diverse perspectives and cultures.	4,08	0,93

The teachers reflected that they effectively utilized the knowledge and skills gained from eTwinning in their teaching practices at the same rate (4.26). The lowest score of 4.08 still reflects a significant effect, suggesting that teachers have created lesson plans that include a variety of perspectives. The standard deviation values, which range from 0.90 to 0.98, indicate moderate agreement among respondents. The minimum and maximum scores (1.0 to 5.0) show that while most teachers strongly agreed, there were a few who rated their experiences more negatively.

The eTwinning projects significantly improve teachers' professional development by enhancing practical skills and teaching practices. The key findings are as follows, with the highest rate (88.3%) teachers felt more confident in exchanging teaching practices with peers, and 87.3% of teachers successfully utilized the knowledge and skills acquired from eTwinning projects in their teaching practices. It was observed that 86.2% of teachers incorporated more ICT tools into their lessons. Additionally, 81.3% of the teachers reported that student engagement improved through more interactive experiences.

While the lowest percentage of strong agreement (36.3%), a majority (79.4%) still reported incorporating diverse perspectives into their lesson planning. This reflects that eTwinning projects encourage multicultural and inclusive teaching practices. Overall, the findings highlight that eTwinning fosters practical growth in areas like ICT integration, confidence, and innovative teaching methodologies.

4.1.4. Effects on Social Aspect of Professional Development

This section describes the analysis of the social aspects of professional development. The results of the study indicate that participation in eTwinning projects has positively contributed to

the social aspect of professional development, with all mean scores exceeding 4.0. Table 6 displays the descriptive statistics for the social aspect of professional development in eTwinning projects.

Table 6

Social Development Aspects

No	Statements After participating in eTwinning projects, ...	Mean (M)	Standard Deviation (SD)
1	I have felt more connected to the global teaching community.	4,25	0,99
2	I have observed a sense of community among colleagues through engaging in discussions and activities.	4,21	0,98
3	I have expanded my professional network through collaboration with international colleagues.	4,32	0,97
4	I have developed my cross-cultural communication skills.	4,35	0,96
5	I have participated in collaborative teaching activities within my school community.	4,18	0,95

The highest mean score was for *"I have developed my cross-cultural communication skills"* (M = 4.35), suggesting that teachers reinforced their ability to interact across different cultural backgrounds. Similarly, the statement *"I have expanded my professional network through collaboration"* (M = 4.32) underscores that eTwinning has provided educators with valuable opportunities to establish professional connections beyond their immediate working environments.

Teachers expressed high levels of participation in collaborative teaching activities within their institutions (M = 4.18). This suggests that involvement in eTwinning has not only enabled international collaboration but also supported teamwork within local educational settings. The standard deviation values vary between 0.95 and 0.99, indicating a moderate degree of variation. This suggests that although the majority of participants concurred with these statements, there was some slight variability in individual experiences.

The participants' view of the social dimensions of professional development is predominantly positive. Most respondents (83.4%) agreed or strongly agreed that the program improved their connections to the global teaching community, while an equal percentage felt it nurtured a sense of community among peers. Furthermore, 87.3% reported that the eTwinning Platform expanded their professional network through collaboration.

Additionally, 88.3% of participants felt that the eTwinning projects enhanced their cross-cultural communication abilities, underscoring its significance in improving interactions across

cultures. Collaborative teaching efforts within institutions were also positively experienced, with 81.4% of participants agreeing or strongly agreeing that they took an active role in such activities. These findings underscore the importance of professional development in strengthening teachers' social connections, fostering collaboration, and enhancing cross-cultural competencies, which are vital for professional growth in a globally connected education environment.

4.1.5. The Results of the Questionnaire for the Second Research Question

The second section of the questionnaire is designed to explore in what ways educators utilize the eTwinning platform to advance their professional development. Table 7 displays the descriptive statistics for the responses regarding the utilization of the eTwinning Platform.

Table 7

The utilization of the eTwinning Platform

No	Statements	Mean (M)	Standard Deviation (SD)
1	I engage with the groups on the eTwinning platform to enhance my professional development.	4,10	0,99
2	I utilize the resources available on the eTwinning website for my teaching or professional activities.	4,11	0,99
3	I leverage the eTwinning platform to access and share innovative teaching strategies and methods with my colleagues.	4,04	1,00
4	I utilize the eTwinning platform to grow professional networks and interact with educators worldwide for collaborative opportunities.	4,20	0,99
5	I regularly participate in eTwinning webinars and online training sessions to improve my pedagogical knowledge and skills.	3,77	1,15

The results of the study indicate a strongly positive perception of the eTwinning Platform on professional development. The majority of participants reported active engagement with the platform, leveraging it for collaboration, networking, and resource utilization. Professional Networking received the highest score, with a mean of 4.20 (SD = 0.99), indicating that educators find the eTwinning platform valuable for expanding their professional relationships.

The use of eTwinning resources was also highly rated, with a mean of 4.11 (SD = 0.99), suggesting that educators frequently benefit from the available resources. Engagement in Groups received a mean score of 4.10 (SD = 0.99), suggesting that most participants actively engage with groups on the platform. Accessing and Sharing Innovations had a mean of 4.04 (SD = 1.00), emphasizing the role of eTwinning in facilitating knowledge exchange. Participation in Webinars and Online Events had a slightly lower mean of 3.77 (SD = 1.15), signifying that while engagement is generally positive, there is room for increased participation.

The results of the study reveal a positive perception of the eTwinning Platform's role in advancing educators' professional development. The majority of participants agreed or strongly agreed that they actively use various platform features to collaborate, access resources, share innovations, and expand their professional networks. The highest level of agreement (84.3%) was observed in using the platform to grow professional networks, indicating that eTwinning significantly supports educators in expanding their professional connections.

(82.4%) of the participants found the resources available on the eTwinning website beneficial for professional learning. (80.4%) of participants agreed or strongly agreed that they actively engage with groups on eTwinning, reflecting a high level of engagement. (78.5%) of participants noted that they leveraged the eTwinning Platform for accessing and sharing innovations, reinforcing its role as a collaborative knowledge exchange platform. Engagement in webinars was relatively limited, with (60.8%) agreeing or strongly agreeing, suggesting a moderate level of participation in structured online learning activities.

4.1.6. Cross-National Comparative Analysis of the eTwinning Program's Impact

The number of participants from other European countries was limited. As a result, the cross-national comparison focused on two groups: teachers from Türkiye and those from other countries. The Mann-Whitney U test was utilized to compare the responses of participants from Türkiye and other countries regarding the impact of the eTwinning program (ETP) on their professional development.

Both groups reported that ETP fostered motivation through recognition and positive feedback ($p = 0.74$) and led to a renewed passion for teaching ($p = 0.84$). Regarding cross-cultural competence and networking, the results reveal no significant difference in cross-cultural understanding ($p = 0.79$) or professional network expansion ($p = 0.55$). An important difference was found in engagement with eTwinning groups ($p = 0.035$), indicating that teachers from Türkiye engage more actively with the platform than their international counterparts. Table 8 presents significant mean rank differences.

Table 8

Perceived Impact of eTwinning on Professional Development in Cross-National Comparison

No	Statements that regard Cognitive Development Engaging in eTwinning Projects	Country	N	Mean Rank	Sum of Ranks
3	has encouraged me to explore new research and literature in education.	Türkiye	77	51,33	3952,50
		Others	23	47,72	1097,50
5	has created environments to exchange ideas, experiences, and resources with national and international colleagues.	Türkiye	77	49,40	3803,50
		Others	23	54,20	1246,50
6	has triggered curiosity and a desire for continuous development.	Türkiye	77	49,58	3817,50
		Others	23	53,59	1232,50
9	has provided peer support and encouragement for my professional growth.	Türkiye	78	50,58	3945,00
		Others	24	54,50	1308,00
16	I have utilized the knowledge and skills obtained from eTwinning projects in my teaching practices.	Türkiye	78	50,35	3927,50
		Others	24	55,23	1325,50
19	I have increased confidence in exchanging teaching practices with educators from colleagues across Europe.	Türkiye	78	52,59	4102,00
		Others	24	47,96	1151,00
21	I have designed my lesson planning with diverse perspectives and cultures.	Türkiye	78	50,71	3955,50
		Others	24	54,06	1297,50
22	I have felt more connected to the global teaching community.	Türkiye	78	50,17	3913,00
		Others	24	55,83	1340,00
24	I have expanded my professional network through collaboration with international colleagues.	Türkiye	78	50,63	3949,00
		Others	24	54,33	1304,00
25	I have developed my cross-cultural communication skills.	Türkiye	78	52,47	4092,50
		Others	24	48,35	1160,50

26	I have participated in collaborative teaching activities within my school community.	Türkiye	77	52,78	4116,50
		Others	23	47,35	1136,50
27	I engage with the groups on the eTwinning platform to enhance my professional development.	Türkiye	78	54,70	4266,50
		Others	24	41,10	986,50
28	I utilize the resources available on the eTwinning website for my teaching or professional activities.	Türkiye	78	53,14	4145,00
		Others	24	46,17	1108,00
29	I leverage the eTwinning platform to access and share innovative teaching strategies and methods with my colleagues.	Türkiye	78	53,00	413400
		Others	24	46,63	1119,00
30	I utilize the eTwinning platform to grow professional networks and interact with educators worldwide for collaborative opportunities.	Türkiye	78	52,51	4096,00
		Others	24	48,21	1157,00
31	I regularly participate in eTwinning webinars and online training sessions to improve my pedagogical knowledge and skills.	Türkiye	77	54,17	4225,50
		Others	23	42,81	1027,50

The results of the comparative analysis indicate noticeable differences in how participants from Türkiye perceive the contributions of eTwinning Projects compared to those from other countries. Concerning the environment created for exchanging ideas with colleagues, teachers from other countries (54.20) expressed stronger agreement than their Turkish counterparts (49.40). Similar trends emerged for curiosity for continuous development (53.59 for others, 49.58 for Türkiye). Teachers from other countries also reflected more positively about designing lesson plans with diverse perspectives and cultures, as indicated by mean ranks of (50.71) for Türkiye and (54.06) for other participants and feeling more connected to the global teaching community (50.17 for Türkiye, 55.83 for others).

An increased confidence in exchanging teaching practices was observed among Turkish participants, showing a stronger agreement (52.59) than their counterparts (47.96). A notable advantage of the ETP was the improvement in cross-cultural communication skills, with Turkish teachers rating this at 52.47, compared to 48.35 for other participants. The ETP was found to be beneficial in increasing collaborative efforts within institutions, with mean ranks of 52.78 for Türkiye and 47.35 for others. Engagement with the eTwinning Platform, including participation in groups, webinars, and the utilization of platform resources, revealed significant differences in participation among teachers. Teachers from Türkiye (54.70) engaged more with eTwinning groups than their counterparts from other countries (41.10). In addition, they leveraged the platform

to access and share innovative practices (53.00 for Türkiye, 46.63 for others) and to expand their professional networks (52.51 for Türkiye, 48.21 for others).

Overall, the results of the study indicate that teachers from Türkiye and other countries derive various benefits from the eTwinning Platform. However, slight variations were observed in the perceptions of networking and innovative teaching practices. While participants from other countries generally favored aspects such as idea exchange and collaboration, Turkish teachers demonstrated greater engagement with the platform and its resources.

4.1.7. Comparative Analysis of eTwinning's Impact Across Education Level of Participant

Mann-Whitney U tests were conducted to examine whether there were differences in responses based on participants' education level (Bachelor's Degree vs. Master's/PhD). While most items did not show statistically significant differences, a few revealed meaningful variations. Table 9 shows the Mann-Whitney U test results with significant differences.

Table 9

Mann-Whitney U Test Results for Professional Development Outcomes by Education Level

No	Statements	BA Mean Rank	MA&PhD Mean Rank	U	Z	p (2-tailed)
13	has been motivating because of the praise and recognition I've received from my colleagues.	55.56	46.36	1051.00	-1.66	0.10
17	I have observed noticeable improvements in student engagement and learning outcomes in my teaching practices.	55.26	46.73	1068.00	-1.56	0.12
23	I have observed a sense of community among colleagues through engaging in discussions and activities.	55.74	46.13	1041.00	-1.77	0.08
24	I have expanded my professional network through collaboration.	55.66	46.23	1045.50	-1.79	0.07
25	I have developed my cross-cultural communication skills.	56.92	44.63	973.50	-2.35	0.02

29	I leverage the eTwinning platform to access and share innovative teaching strategies and methods with my colleagues.	55.71	46.17	1042.50	-1.73	0.08
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The most prominent difference was seen in item 25, “I have developed my cross-cultural communication skills”, where participants with a bachelor’s degree reported significantly higher mean rank (56.92) compared to those with a Master’s/PhD (44.63), suggesting a potential difference in perception. Three other items related to professional networking and community sense approached significance, with higher mean ranks for the BA group included: “I have observed a sense of community among colleagues” (BA=55.74, MA/PhD = 46.13). “I have expanded my professional network through collaboration” (BA = 55.66, MA/PhD = 46.23). “I leverage the eTwinning platform to access and share innovative practices” (BA = 55.71, MA/PhD = 46.17).

These results indicate that participants with a bachelor’s degree perceived greater professional advantages from the eTwinning projects compared to their counterparts with higher degrees, particularly in areas related to collaboration, networking, and intercultural communication. Specifically, participants with a bachelor’s degree reported feeling more benefited in areas such as professional community involvement, curiosity for innovation, and overall motivation. This suggests that bachelor’s degree holders may have experienced more advantages in cross-cultural and community-focused professional development compared to their peers.

4.1.8. Comparative Analysis of the eTwinning Projects’ Impact on Teaching Levels

A Kruskal-Wallis H test was performed to examine whether there were statistically significant differences in participants' responses to the online questionnaire based on their teaching level (Primary, Secondary, or High School). The analysis indicated varying mean ranks across teaching levels for all items. High School teachers consistently reported higher mean ranks for most items, indicating a greater perceived benefit from the eTwinning Projects compared to their Primary and Secondary counterparts. Notably, High School teachers recorded the highest mean rank average values for items such as, "I have developed my cross-cultural communication skills"

(59.77), "I have observed a sense of community among colleagues" (58.45), and "I regularly participate in eTwinning webinars and online events" (58.85).

Conversely, primary school teachers typically showed the lowest average rankings across various items. For instance, their mean rank for the statement "I have integrated more ICT tools into my teaching" was the lowest at (39.91), suggesting they engage less with digital teaching tools through the eTwinning Projects. These findings indicate that the eTwinning Projects may substantially impact teachers working at the secondary and high school levels, particularly in areas related to intercultural communication, technological integration, and collaborative practice.

To determine the items with the most notable variation across teaching levels, the range of mean ranks was calculated. Table 10 presents the significant mean rank differences of questionnaire items across teaching levels (Primary, Secondary, and High School). Items with a difference greater than 10 points were considered to show significant variation. It is observed that high school teachers reported higher agreement levels across almost all items, particularly in cognitive, actional and eTwinning Platform utilization aspects; no significant difference was seen in the affective aspect.

The statement "I have integrated more ICT tools into my teaching compared to before" showed the most consistent and largest differences, indicating a stronger engagement of high school teachers in digital engagement events. These differences suggest that teaching significantly influences how educators perceive and benefit from professional development experiences, especially in collaborative and technological aspects.

Table 10

Comparative analysis of teaching levels items with Significant Mean Rank Differences (>10)

No	Statements	Primary	Secondary	High School	Range
1	ETP has expanded my understanding of teaching theories and methodologies.	41.39	55.53	53.10	14.14
3	ETP has encouraged me to explore new research and literature in education.	41.77	52.62	53.29	11.52
6	ETP has facilitated my understanding of student learning.	41.59	53.49	52.56	11.90
8	ETP has expanded my cross-cultural knowledge and understanding.	40.11	50.36	56.35	16.24

17	I have observed noticeable improvements in student engagement and learning outcomes in my teaching practices.	45.18	51.04	55.33	10.15
18	I have integrated more ICT tools into my teaching compared to before.	39.91	52.18	57.07	17.16
23	I have observed a sense of community among colleagues through engaging in discussions and activities.	48.11	46.10	58.51	12.35
24	I have expanded my professional network through collaboration with international colleagues.	47.43	46.42	58.51	12.09
25	I have developed my cross-cultural communication skills.	47.07	45.31	59.77	14.46
26	I have participated in collaborative teaching activities within my school community.	42.59	48.46	59.17	16.58
27	I engage with groups on the eTwinning platform to enhance my professional development.	40.27	52.46	56.61	16.34
28	I utilize the resources available on the eTwinning website for my teaching or professional activities.	45.45	49.27	56.87	11.42
29	I leverage the eTwinning platform to access and share innovative teaching strategies and methods with my colleagues.	43.89	49.72	57.28	13.39
30	I utilize the eTwinning platform to grow professional networks and interact with educators worldwide for collaborative opportunities.	41.91	50.86	57.26	15.35
31	I regularly participate in eTwinning webinars and online training sessions to improve my pedagogical knowledge and skills.	43.48	48.29	58.85	15.37

Additionally, several items demonstrated marginal or near-significant results. These include "ETP has expanded my cross-cultural knowledge and understanding" ($p = .05$), "I have integrated more ICT tools into my teaching" ($p = .05$), and "I have participated in collaborative teaching activities" ($p = .05$).

Other factors that approached statistical significance ($p < .10$) were associated with building professional networks, interacting with the eTwinning platform, and a sense of community among colleagues. These findings imply that the effects of ETP may differ slightly based on teaching level, particularly in aspects related to international collaboration, the use of technology, and professional involvement.

4.1.9. Comparative Analysis of Perceived Outcomes Based on Teaching Experience

A Kruskal-Wallis H test was performed to assess if there were significant differences in participants' responses according to their years of experience in teaching. Even though none of the items achieved the conventional threshold for statistical significance ($p < 0.05$), some items approached it and may suggest a trend worthy of further investigation. Participants were grouped into three categories: 1–10 years, 11–15 years, and 15+ years. While the results showed variation in mean ranks across the experience levels, the differences were generally slight and did not consistently favor any group.

Across several items, respondents with 15+ years of experience tended to report marginally higher mean ranks—particularly in areas such as personal development, innovative teaching practices, and cross-cultural collaboration—suggesting that longer engagement may be associated with a more assured incorporation of eTwinning project outcomes into their teaching methods. The item 16 “I have utilized the knowledge and skills obtained from eTwinning,” the 15+ group had the highest mean rank (56.09), compared to the 1–10 group (46.17).

Additionally, item 10, “ETP has enabled me to receive positive feedback for making a positive impact on my students' education,” again, the 15+ group had a noticeably higher mean rank (56.70). Meanwhile, items related to online engagement and use of the platform showed less consistent patterns among the groups. Table 11 displays the statements with significant differences.

Table 11

Kruskal-Wallis H Test Results Based on Years of Experience

No	Statements	1-10 Years Mean Rank	11-15 Years Mean Rank	15 +Years Mean Rank	H	df	p
10	has enabled me to receive positive feedback for making a positive impact on my students' education.	46.29	48.69	56.70	2.86	2	0.24
18	I have integrated more ICT tools into my teaching.	46.46	48.73	56.57	2.79	2	0.25
16	I have utilized the knowledge and skills obtained from eTwinning projects in my teaching practices.	46.17	49.51	56.09	2.38	2	0.30
5	has created environments to exchange ideas, experiences, and	54.63	45.68	52.10	2.16	2	0.34

	resources with national and international colleagues.						
3	has encouraged me to explore new research and literature in education.	46.93	55.82	48.20	2.12	2	0.35

4.1.10. Comparison of Perceived Outcomes Based on the Number of eTwinning Projects

To explore whether the number of eTwinning projects that educators were involved in, influenced their perceived outcomes, a Kruskal-Wallis H test was conducted across three groups: 1–5 projects, 6–10 projects, and 10+ projects.

It was observed that participants with different numbers of eTwinning projects significantly differed in their experiences on how ETP deepened their knowledge of information and communication technologies (ICT), ($p = 0.01$). Those with longer participation generally reported stronger agreement. Similarly, significant differences were found related to the opportunities to learn innovative teaching strategies and techniques, ($p = 0.02$), and the creation of environments to exchange ideas with national and international colleagues, ($p = 0.03$). These results indicate that extended involvement in eTwinning may enable greater exposure to new pedagogical approaches and collaborative experiences.

The analysis also showed significant group differences in perceptions related to affective and social dimensions. For example, participants differed significantly in their responses to whether the ETP had triggered their curiosity and desire for continuous development, ($p = 0.04$), and whether it had helped them grow empathy and understanding through interaction with diverse educators, ($p = 0.01$). These findings indicate that longer engagement may support affective development and intercultural awareness.

Moreover, significant differences were also seen in participants' agreement that ETP inspired them to move beyond their comfort zone, ($p = 0.01$), and helped them receive positive feedback for positively impacting students, ($p = 0.03$). Those with longer participation reported a greater sense of purpose and excitement in teaching practice, ($p = 0.02$), and increased confidence in exchanging teaching practices, ($p = 0.02$). Table 12 displays the Kruskal-Wallis H test results by the number of eTwinning projects participants participated in (1–5 projects, 6–10 projects, 10+ projects). Only significant items ($p < 0.05$) are presented.

Table 12*Kruskal-Wallis H Test Results Based on eTwinning Projects Participation*

No	Statements	1-5 P. Mean Rank	6-10 P. Mean Rank	10+ P. Mean Rank	H	df	p
2	ETP has deepened my knowledge of information and communication technologies (ICT).	46.43	53.21	70.50	8.99	2	.01
4	ETP has provided opportunities to learn innovative teaching strategies and techniques.	46.89	52.07	69.82	7.57	2	.02
6	ETP has facilitated my understanding of student learning.	48.52	47.48	68.50	6.72	2	.03
7	ETP has triggered curiosity and a desire for continuous development.	47.26	51.64	68.32	6.46	2	.04
9	ETP has provided peer support and encouragement for my professional growth.	47.87	51.98	73.32	8.65	2	.01
10	ETP has enabled me to receive positive feedback for making a positive impact on my students' education.	50.59	44.84	70.50	6.84	2	.03
11	ETP has helped me to grow my empathy and understanding through interacting with educators from diverse backgrounds.	48.18	50.73	73.86	8.75	2	.01
14	ETP has created a sense of purpose and excitement in my teaching practice.	48.11	51.68	72.41	7.85	2	.02
15	ETP has inspired me to move beyond my comfort zone and embrace new opportunities for professional growth.	49.09	48.05	73.50	8.85	2	.01
19	I have increased confidence in exchanging teaching practices.	47.79	52.57	72.64	8.13	2	.02

Overall, participants with more than 10 eTwinning projects consistently reported higher mean ranks than the other groups, particularly regarding peer support, integration of innovative practices, and use of eTwinning resources, indicating that long-term engagement may contribute to enhanced professional development outcomes. This suggests that longer engagement with the

platform improves teachers' cognitive, actional and affective development; no significant differences were observed regarding the social aspect and utilization of the eTwinning Platform.

4.1.11. Comparison of Perceived Outcomes Based on the Number of eTwinning Projects Organized and Run

Kruskal-Wallis H tests were utilized to explore whether teachers' perceptions of the effects of the eTwinning Projects differed based on the number of projects they organized and ran (none, 1–5 years, 6+ years). The findings revealed statistically important differences in 11 of the 31 statements regarding participants' professional growth experiences.

Notably, teachers who organized over six eTwinning projects consistently reported more positive outcomes compared to those with less or no experience. For instance, significant differences were seen in perceptions related to opportunities to learn innovative strategies ($p = 0.01$) and understanding of student learning ($p = 0.02$). Similarly, participants who organized more eTwinning projects felt more positively about the platform's support for empathy development, feedback, motivation, and stepping beyond comfort zones (see Table 13).

Additionally, there were significant differences in the cognitive aspect: participants reported better understanding of teaching theories ($p = 0.04$), and stronger development of innovative teaching strategies ($p = 0.01$). Similarly, affective aspect indicators such as enhanced motivation due to recognition ($p = 0.01$), reignition of passion ($p = 0.02$), and a greater sense of purpose in teaching ($p = 0.01$) were also significantly more reported among the more experienced participants. In terms of actional domain, there were statistically significant increases in utilizing eTwinning-acquired knowledge ($p = 0.04$), and confidence in sharing practices ($p = 0.02$). Participants with more eTwinning Projects reported that they actively engaged with the eTwinning ($p = 0.04$).

Table 13*Kruskal-Wallis H Test Results Based on Number of Projects Organized and Run*

No	Statements	0 Projects	1-5 Projects	6+ Projects	H	df	p
		Mean Rank	Mean Rank	Mean Rank			
1	has expanded my understanding of teaching theories and methodologies.	43.56	53.44	66.0	6.21	2	.04
4	ETP has provided opportunities to learn innovative teaching strategies and techniques.	43.54	50.94	69.82	8.64	2	.01
7	ETP has triggered curiosity and a desire for continuous development.	39.68	54.46	64.14	10.53	2	.01
8	ETP has expanded my cross-cultural knowledge and understanding	42.15	54.27	57.45	5.89	2	.05
9	ETP has provided peer support and encouragement for my professional growth.	47.00	5.78	69.14	5.82	2	.05
10	ETP has enabled me to receive positive feedback to make a positive impact on my students' education.	49.04	49.30	70.50	6.09	2	.05
12	has reignited my passion for teaching and learning by engaging in innovative activities.	47.32	49.75	73.50	8.38	2	.02
13	has been motivating because of the praise and recognition I've received from my colleagues.	44.74	51.00	75.00	9.84	2	.01
14	has created a sense of purpose and excitement in my teaching practice.	45.28	51.18	72.41	8.59	2	.01
15	has inspired me to move beyond my comfort zone and embrace new opportunities for professional growth.	45.50	51.66	69.23	6.93	2	.03
16	I have utilized the knowledge and skills obtained from eTwinning projects in my teaching practices.	43.06	54.10	64.14	6.28	2	.04
19	I have increased confidence in exchanging teaching practices.	43.29	53.11	68.55	7.78	2	.02
20	I have become curious about innovative teaching methods and pedagogical approaches.	46.71	52.44	61.45	2.60	2	.27

21	I have designed my lesson planning with diverse perspectives and cultures.	42.79	53.79	66.55	7.06	2	.03
27	I engage with groups on the eTwinning platform to enhance my professional development.	44.51	55.03	54.82	3.27	2	.19

These findings suggest that prolonged involvement with eTwinning is associated with broader, deeper, and more meaningful impacts on teachers' cognitive, affective, and actional professional development. It is also observed that eTwinning is associated with enhanced perceptions of the platform's contributions to pedagogical innovation, intercultural awareness, and professional motivation.

4.2. Qualitative Results

The qualitative phase of the study seeks to answer the following research questions:

- How do English language teachers describe the perceived benefits and challenges of participating in eTwinning projects?
- What are English language teachers' experiences with the eTwinning platform regarding their professional development?

Qualitative analysis was conducted following Braun and Clarke's (2006) six-step framework: (1) familiarization with the data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report. To ensure the reliability of data coding, an intercoder agreement procedure was conducted. An independent coder, a female English instructor with 18 years of experience at a preparatory school at a state university in Ankara, assisted in this process. The analysis yielded an accuracy rate of 89% for open-ended question responses and 93% for focus group interviews. The integration of qualitative findings was achieved by comparing the findings and organizing the holistic themes. Data is presented with illustrative quotes from both sources to highlight common patterns.

The transformative impact of eTwinning projects on professional development was observed through the responses, highlighting the value of collaboration and cultural exchange. This section showcases coded data, highlighting the key themes and patterns in participants' experiences and viewpoints on eTwinning. Pseudonyms were used for the participants while presenting the

quotations. The findings offer a comprehensive understanding of the effects of eTwinning Projects on educators' professional growth. Table 14 displays the themes emerged from two data sources.

Table 14

Identified Themes Across Open-ended Responses and Focus Group Interviews

Themes	Open-ended responses	Focus group interviews
Enhanced Student Motivation and Engagement	√	√
Professional Growth and Reflective Teaching Practices	√	√
Collaboration and Peer Learning	√	√
Challenges and Constraints	x	√
Intercultural Awareness and Global Networking	√	√
Expectations and Future Plans	x	√

The integrated findings are categorized under six themes which are presented in Table 15. Due to the limited number of participants, numbers are assigned to protect anonymity while providing excerpts.

Table 15

Themes and Codes Identified in Qualitative Data

Theme	Description	Codes	Excerpts
Enhanced Student Motivation and Engagement	Improvements in students' willingness to learn, communicate in English, and participate actively.	Student motivation, engagement, improved language skills, real life communications, use of L2	The attitudes of ss changed, Ss are willing to get responsibility, work with each other in groups in English lessons. (F.G.P.2)
Professional Growth and	Teachers' increased use of innovative methods, critical	Innovative teaching methods, improved digital	I improved my social skills, teaching skills. I

Reflective Teaching Practices	self-evaluation, and adaptation of new techniques.	skills, multidisciplinary, enhanced teaching practices, self-satisfaction	developed my web2.0 tool skills. (O.E.P.11)
Collaboration and Peer Learning	Shared practices, idea exchanges, and cooperation among teachers within and beyond eTwinning.	Exchange of practices, supportive peers, collaboration, sharing ideas,	We created some kind of community where all of us were kind and helpful to each other. It improved my teaching. (F.G.P.9)
Challenges and Constraints	Issues such as digital platform complexity, reluctant partners, time management problems, and unmotivated students.	Low digital skills, demotivated students, lack of initiatives & support; reluctant project partners, time constraints	I had to learn technological tool myself before teaching my students. (F.G.P.5)
Intercultural Awareness and Global Networking	Exposure to different cultures, development of intercultural skills, and networking with international peers.	Global Network, social networking, intercultural awareness	eTwinning projects broaden one's horizons with the freedom it provides to collaborate with a range of cultures. (O.E.P.69)
Expectations and Future Plans	Variations between initial expectations and project outcomes, including participants' future intentions for engagement.	well-planned projects, acknowledgement for eTwinning Participation, willingness for new projects	I want to really do new projects; this is really a great way to improve both myself and my students (F.G.P.4)

4.2.1. The Perceived Benefits and Challenges of eTwinning Project Participation

This chapter presents qualitative findings addressing the research question: How do English language teachers describe the perceived benefits and challenges of participating in eTwinning projects? The themes are explained within excerpts drawn from both data sources. Open-ended responses are labeled with their initials and the participant number, e.g., O.E.P.2, while focus group interviews are indicated as e.g. F.G.P.23. The national background of the open-ended responses is included to provide context for their insights. However, the origins of focus group participants remain anonymous due to the limited number of individuals involved to ensure confidentiality. This format allows for clear identification of the source of the data and enhances the validity of the analysis.

4.2.1.1. Enhanced Student Motivation and Engagement

The data revealed that participation in eTwinning projects had positive impact on student learning, especially in terms of engagement, motivation, and communication skills. 13 respondents from open-ended responses highlighted that eTwinning projects had a direct impact on student learning outcomes. Excerpt 1. reflects on improved student outcomes.

Excerpt 1.

“Of course; because cross-cultural learning environment is an effective way to practice foreign language and in a small-town e-twinning is the best and easiest tool for me and my students to practice.” (O.E.P.55, from Türkiye)

This statement demonstrates the transformative impact of stepping beyond familiar teaching routines, where engaging with culturally diverse peers enriches teachers’ professional experiences and significantly enhances students’ linguistic and interpersonal development. Participants underscored that student became more enthusiastic about English lessons after they were involved in eTwinning projects. Several teachers noted that students were more eager to use English to communicate, particularly in real-life situations with international peers. One participant stated as follow:

Excerpt 2.

“Our lessons were much more interesting for students because of using English in real-life situations...It was motivating for them because they had to learn some new expressions to talk to their friends. They try to speak English even more than before, and they try to explain themselves in English” (F.G.P.6)

This enthusiasm led to increased student engagement in the classroom, the integration of digital tools, and an overall enjoyment of project-based learning. Participants noticed that students started to view English not merely as a subject, but as a medium to interact with people from different countries. Teachers also reflected on utilizing the eTwinning projects to connect classroom with real-life, fostering interdisciplinary learning and 21st-century skills. This indicates a shift from isolated subject teaching toward more holistic and integrated pedagogies. Excerpt 3. highlights various interconnected benefits of eTwinning projects.

Excerpt 3.

“eTwinning projects bring together language learning, digital literacy, ICT use, and science and mathematics, as well as various social sciences, encouraging active student participation. They learn, implement, and use ICT tools and – even learn new languages – through different project types. Most importantly, pupils meet their European friends regularly, even if only online. Maybe for the first time in their lives, they meet different cultures and people. This is a wonderful opportunity. It gave me a chance to observe my pupils during the whole process and see how they became confident speakers!” (O.E.P.28, from Türkiye)

This excerpt illustrates how eTwinning facilitates interdisciplinary learning, merging subjects such as language, ICT, science, and social studies within a project-based framework. Additionally, it emphasizes active student participation, particularly in terms of using ICT tools and engaging in intercultural communication.

4.2.1.2. Professional Growth and Reflective Teaching Practices

Most participants reported that eTwinning participation had a positive impact on their professional development. Teachers mentioned that the experience prompted them to reflect on their teaching practices, explore new teaching strategies, and collaborate across borders. One teacher stated, *“It was inspiring... we learned new things from partners, and it was motivating to try different techniques.” (F.G.P.11)*

The data revealed that participation in eTwinning projects promoted the digital competencies of the participants. Most frequently mentioned code was the integration of ICT tools, with 33 mentions in open-ended responses, teachers reported enhancements in their ICT skills, including the integration of web 2.0 applications and creating digital materials using AI based educational tools. Excerpt 4. reflects participants ICT improvements.

Excerpt 4.

“Especially using web 2.0 tools has enhanced my professional development. In this era of technology, it is of utmost importance to reinforce students’ IT skills. The more students are involved in the project, the more motivated the teachers become.” (O.E.P.42. from Türkiye)

This excerpt underscores how integrating technology not only fosters students’ digital competence but also provides motivation and professional growth for teachers, illustrating the

reciprocal nature of engagement in eTwinning projects. Participants also reported that eTwinning enabled them to stay informed about new trends in education and to innovate their teaching strategies. This displays the eTwinning's role in promoting continuous learning and pedagogical innovation. Excerpt 5 displays the experiences of teachers as they navigate the current developments in education.

Excerpt 5.

“It gives me a great opportunity to expand horizons especially in IT communications, creative development and being up to date in my field of work. (O.E.P.22, from Croatia)”

The teacher's reference to “being up-to-date” suggests that eTwinning acts as a bridge between theory and practice, allowing educators to observe, adapt, and integrate current instructional strategies in their classrooms. The data also suggest that the use of multidisciplinary approaches and project-based learning also improved teachers' instructional repertoire, with some teachers mentioning specific improvements such as digital competence and incorporating current issues (e.g., ecology, media literacy) into language teaching.

4.2.1.3. Collaboration and Peer Learning

The participants of focus group interviews appreciated the collaborative aspect of eTwinning projects, both among students and educators. They emphasized the significance of effective communication, equal duty sharing, and mutual support between project partners. The phrases “sharing ideas, teaching tips, and creating something together” were frequently mentioned as rewarding aspects of the projects. Collaboration also emerged as a critical factor in open-ended responses, noted by 16 participants. Participants mentioned that participating in international projects not only enabled them to learn from their colleagues but also supported them to develop intercultural awareness. Excerpt 6. highlights teachers' perceptions regarding collaborative aspect of the projects.

Excerpt 6.

“...Starting from the exchange of ideas and experiences, through teamwork in which we improve our social skills, all the way to the use of new ICT tools and the realization of project outcomes through joint work with full acceptance and support of our colleagues. It broadens our minds and opens our hearts as we get to know other cultures. It is a life-changing experience.”
(O.E.P.21, from Croatia)

This excerpt powerfully reflects the multifaceted impact of participation in eTwinning projects—from enhancing collaboration and ICT competencies to fostering intercultural understanding. It highlights how professional development in such contexts contributes to professional growth through meaningful engagement. Nevertheless, there was a noticeable difference between ideal collaboration and real-world difficulties. Some teachers noted challenges due to unmotivated or inactive partners, occasionally disrupting the collaborative spirit.

It was observed that another recurring sentiment among teachers was a growing sense of motivation for their practice. Teachers reported feeling more confident in exchanging practices and implementing new methods. 32 participants from open-ended responses emphasized how eTwinning projects notably improved their teaching practices, and a considerable number of respondents, 23 in total, valued the opportunities to exchange ideas and strategies with peers. Excerpt 7 shows teachers’ perceptions on exchanging ideas with cross-national colleagues.

Excerpt 7.

“Certainly yes. Participating in eTwinning projects has given me the chance to learn from my peers; it has boosted my self-confidence and enforced my will to learn more and do better.”
(O.E.P.11, from Portugal)

The statement emphasizes that educators experienced an increase in confidence regarding the exchange of pedagogical practices with their international counterparts, as well as in their ability to express their thoughts and ideas. Furthermore, respondents noted that eTwinning projects helped them gain fresh perspectives. Excerpt 8. highlights teachers’ experiences on gaining new perspectives.

Excerpt 8.

“Sure, it provides a new perspective for teachers to organize better learning settings and opportunities to collaborate with the whole world.” (O.E.P.23, from Türkiye)

This excerpt reflects that eTwinning projects provide a new perspective for teachers to organize more fruitful learning environments and offer valuable opportunities to collaborate with international colleagues, thereby broadening both their pedagogical outlook and their students' horizons.

4.2.1.4. Challenges and Constraints

While the overall feedback was generally positive, participants highlighted several ongoing challenges. One of the most significant challenges was related to technology, with many expressing concerns about the low digital competency levels among students and educators. This lack of digital skills created substantial obstacles to effectively utilizing available resources and tools and completing project tasks. One participant (*F.G.P.5*) remarked, *"Even teachers don't know how to use the tools... and students sometimes quit because it's hard."* This statement underscores the frustration felt by both educators and learners when faced with the demands of technology that they do not fully understand.

Moreover, many participants pointed out that the updated eTwinning platform is non-user-friendly, which they found challenging to navigate. In addition to these technological barriers, time constraints emerged as a critical issue, with busy schedules making it hard for teachers and students alike to engage meaningfully in projects. Time differences and national holidays among countries were noted as challenges in managing meetings and following project tasks. The necessities of the existing curriculum also limited the capacity to incorporate eTwinning initiatives, making it difficult to fully capitalize on the potential benefits.

Several educators noted that in the beginning, the school administrations lacked a clear understanding of the benefits associated with these projects, which resulted in environments that were not supportive for teachers and students completing project tasks at school. After completing the projects, schools are awarded Quality Labels and eTwinning School Labels, which recognize successful initiatives. This led to increased support from the administration. Excerpt 9 highlights this notion.

Excerpt 9

“I think not only the teachers but also we should educate the school management because they don't know what you're going to come through and the needs that you may have...”
(F.G.P.4)

Furthermore, some teachers shared their experiences of collaborating with reluctant project partners who would abandon projects halfway through, which only added to the existing frustrations and contributed to a decrease in motivation. Excerpt 10 reflects on this challenge.

Excerpt 10

"I was disappointed when my partners gave up halfway through, and I couldn't get the European Quality Label." (F.G.P.11)

These reflections show the complex landscape that participants had to navigate, characterized by a mix of positive interactions with the eTwinning community alongside significant barriers that need to be addressed for more successful collaborations in the future.

4.2.1.5. Intercultural Awareness and Global Networking

Teachers noted that eTwinning provided students with valuable opportunities to engage with diverse cultures and broadened their perspectives significantly. Several participants shared stories about students who, before the project, had never had the chance to travel or meet peers from different countries. For many, participating in these projects represented their first real opportunity to communicate and collaborate with individuals from abroad, thus opening a world of new experiences and insights. Moreover, teachers reported that eTwinning projects fostered a sense of global citizenship among students. By engaging in forums, collaborating on projects, and sharing personal ideas, students developed a better understanding of different cultures. This exposure enriches their learning experiences, encouraging them to think critically and empathetically about the world around them.

In addition to the benefits for students, participants also expressed appreciation for the professional networking opportunities that eTwinning enables. Many educators noted that the project provided connections with colleagues from various countries, creating a collaborative environment where they could exchange educational materials and best practices. These exchanges

not only support their teaching strategies but also allow educators to gain insights into different educational systems and methodologies. This aspect is seen in excerpt 11.

Excerpt 11

“My biggest expectation was meeting new friends around the world because we can't meet with another person from around the world with a new culture, and I thought that this was the biggest opportunity for me, and thanks to eTwinning, I have met so many friends around the world.” (F.G.P.7)

The relationships built through eTwinning often extend beyond mere professional contact; they cultivate a community of practice that transcends borders. Teachers are learning from each other, sharing innovative ideas, and addressing common challenges in education, all of which ultimately enrich their teaching and benefit their students further. This collaborative spirit fosters a deeper understanding of global education trends and promotes professional development in a way that is both meaningful and impactful. One of the participants mentioned becoming aware of different viewpoints. *“We are learning new cultures, how a teacher behaves in other situations, for instance, you are gaining another aspect to the events.” (F.G.P.2)*

Participants also reflected that through their engagement with eTwinning projects, they extended their professional network and built new partnerships such as Erasmus+ project partnerships. Excerpt 12 reflects upon these notions.

Excerpt 12

“Sure.... My network expanded to find Erasmus projects partners. There is no border in education and cooperation with world countries thanks to the eTwinning. (O.E.P.43, from Türkiye)

This excerpt reflects that cooperation in eTwinning projects creates new opportunities for teachers to work together with international colleagues. Overall, eTwinning serves as a bridge connecting educators and students from diverse backgrounds, facilitating a rich exchange of ideas that enhances cultural awareness and professional growth. The resulting network of motivated individuals committed to educational excellence marks a promising step towards a more interconnected and understanding future.

4.2.1.6. Expectations and Future Plans

When asked about their expectations, participants expressed a range of experiences. While many found the projects enriching and satisfying, others were disappointed by the lack of formal recognition, such as certificates or official ceremonies. Teachers from different countries mentioned that there were no ceremonies regarding eTwinning. Yet, teachers from Türkiye mentioned different experiences regarding reinforcement. In some cities, ceremonies were held for presenting quality labels, yet in other cities, there were no ceremonies. This sometimes affected their motivation to continue with future projects.

Despite some frustrations, most participants expressed a willingness to engage in new eTwinning projects. A few, however, were hesitant due to time constraints, platform difficulties, or previous negative experiences. Teachers indicated a preference for participating as project partners rather than as project founders, as the latter necessitates significant effort. In summary, teachers expressed positive experiences with eTwinning and professional development. They viewed eTwinning as an alternative way for stepping outside of their comfort zone and challenging themselves with new learning experiences. Excerpt 13 highlights multifaceted benefits of eTwinning.

Excerpt 13

“Well done to everybody who joined I mean, attempting to do eTwinning because you know it's a fancy thing to do nowadays breaking the habit, making new connections and stuff that's what we do because we expose ourselves to something unknown to us and we get together with people we've never met. So that's when they all get combined, you find yourself in a picture that you all constantly try to achieve something...” (F.G.P.3).

Although the overall feedback was positive, some open-ended responses pointed out that eTwinning projects had limited impact, as indicated by 4 mentions of "not much." Several educators reported a lack of measurable improvement in their professional development because of their participation in eTwinning projects. While eTwinning project participation is generally regarded as beneficial for promoting collaboration and innovation among participants, it is noteworthy that a small subset of participants did not perceive any enhancement in their professional competencies or teaching practices following their involvement. These negative experiences may be explained with the challenges reflected by focus group interviewees. Potential

explanations for the limited perceived impact may also involve a mismatch between the goals of the eTwinning projects and the personal or professional objectives of these educators.

4.2.2. The Professional Development Experiences within the eTwinning Platform

This subsection aims to address the research question: What are English language teachers' experiences with the eTwinning platform regarding their professional development? Qualitative data from focus group interviews is presented exclusively, as the open-ended question responses do not encompass this aspect of inquiry. This approach enables a focused analysis of the teachers' perceptions and insights related to their professional growth through the eTwinning platform.

4.2.2.1. Participation in Professional Learning Activities

A significant portion of the participants, specifically 54.5%, reported that they engaged with webinars or online courses provided through the eTwinning platform. Those who took part in these webinars expressed that they were particularly advantageous for enhancing their digital skills and pedagogical methods. For instance, Participant 7 (F.G.P.7) conveyed, *"I joined webinars, and they were quite useful to find new techniques and perspectives."* Similarly, Participant 8 (F.G.P.8) mentioned, *"I'm currently taking a course about teachers' digital competence. In contrast, 45.5% revealed that they had not attended any webinars, indicating that they either perceived the training opportunities on the platform as inadequate or felt that the platform itself lacked engagement. For example, Participant 11 (F.G.P.11) admitted, "I never joined any webinars; I didn't find the platform engaging."* This feedback highlights a divide into experiences among users of the platform.

4.2.2.2. Engagement in Online Communities

36.4% of the participants indicated that they became involved in professional groups or communities available on the eTwinning platform. While their early experiences with these groups were largely favorable, over time, many of these communities saw a decline in activity and

participation. F.G.P.2 explained, *"I joined a few groups, but after a while, no one posted anything."* 63.6% of participants did not actively engage in any group discussions or collaborative forums. This lack of participation was attributed to several discouraging factors, the foremost being the perceived inactivity within these platforms. Participants expressed that the limited frequency of updates and discussions contributed to their disengagement, leading to a sense of frustration and disconnection from the collective experiences intended by these collaborative efforts.

4.2.2.3. Networking and Peer Collaboration

Networking emerged as a significant advantage for 45.5% of the participants in the study. These participants expressed various ways in which engaging with fellow educators facilitated professional growth and development. The opportunities to interact with other teachers included structured formats such as courses, webinars, and digital collaboration platforms like Padlets.

The interactions not only broadened their pedagogical perspectives but also fostered a sense of community among educators. This communal engagement allowed participants to share insights, challenges, and successful strategies, ultimately enhancing their instructional practices. Moreover, the networking opportunities provided a platform for exchanging innovative ideas and approaches that would not have been as easily accessible in isolation. F.G.P.3 stated, *"It's all about this collaboration and getting connected, building bridges with other people, which was the best part of it."* Nevertheless, 54.5% (6 out of 11) said they had limited peer networking through the platform itself, often relying more on external communication tools (e.g., email, WhatsApp).

4.2.2.4. Challenges in Platform Usability

Notably, 72.7% (8 out of 11) of participants found the updated eTwinning platform (ESEP) complex and difficult to navigate. F.G.P.4 noted, *"The new platform is complicated, and it's hard to find relevant resources or groups,"* reflecting the frustration many users felt when attempting to familiarize themselves with the changes. This usability issue seemed like a barrier to fully utilizing the platform's professional development potential. Table 16 displays the frequencies and percentages of utilization ways of the teachers.

Table 16*Utilization of the eTwinning Platform for Professional Development*

Utilization Type	Frequency(n)	Percentage (%)
Participation in Webinars or Online Courses	6	54.5
No Participation in Webinars or Courses	5	45.5
Joining Professional Groups	4	36.4
No Active Engagement in Groups	7	63.6
Peer Networking and Collaboration	5	45.5
Limited Peer Networking	6	54.5
Challenges with Platform Usability (ESEP)	8	72.7

Note. N = 11.

In summary, this chapter aimed to present the quantitative findings to address the research questions: “What are the perceptions of English language teachers who participate in eTwinning projects in terms of professional development?” and “In what ways do educators utilize the eTwinning platform to advance their professional development?” Additionally, findings from comparative analyses were included to illustrate differences among participants’ responses based on variables such as their national background, educational background, and eTwinning experience.

The qualitative data were analyzed to seek answer to the following research questions: “How do English language teachers describe the perceived benefits and challenges of participating in eTwinning projects?” and “What are English language teachers’ experiences with the eTwinning platform regarding their professional development?” The qualitative data from open-ended responses and focus group interviews were integrated and presented cohesively to provide a comprehensive understanding of teachers’ perspectives and experiences. These multi-source results collectively guide the subsequent discussion chapter, where they will be interpreted considering the study’s research questions and the wider body of literature.

CHAPTER V

DISCUSSION

This study examined the perceptions of English language teachers engaged in eTwinning projects concerning their professional development across four dimensions: cognitive, affective, social, and actional. Additionally, it explored how educators leverage the eTwinning platform to enhance their professional learning. An explanatory sequential mixed-methods approach was utilized, combining quantitative survey data with qualitative insights from the open-ended question and the focus group interviews.

To begin with, this chapter interprets both quantitative and qualitative findings, examining their alignments and differences. By analyzing the two sets of data, the study presents a comprehensive understanding of the research topic, underscoring areas where the findings converge as well as where they diverge. This dual approach offers deeper insights into the overall implications of the study. Next, the chapter interprets and situates how the findings correspond with or differ from existing literature and underscores implications for practice, policy, and future research. The first section discusses language teachers' perceptions of professional development through their engagement in eTwinning projects, examined under four key dimensions: cognitive, affective, actional, and social. It incorporates results from the online questionnaire, open-ended responses, and focus group interviews to offer a comprehensive understanding of teachers' experiences.

The second section concentrates on how educators utilize the eTwinning platform for improving their professional growth. The use of the platform, participation in online professional development activities, and the perceived benefits and limitations of eTwinning engagement are discussed. Overall, the chapter discusses the findings identified from the data alongside the existing literature, offering a holistic view of the impact of eTwinning on teacher development.

In general, the qualitative data gathered from the questionnaire supports the quantitative findings regarding the benefits of eTwinning on teachers' professional development. The reflections indicate that participation in eTwinning projects leads to significant improvements in various areas of instructional practice. Teachers not only gain innovative teaching methodologies

but also develop a sense of community through collaboration with international colleagues. This collaboration enables a rich exchange of ideas and best practices that can be efficiently implemented in their classrooms. Moreover, the focus group interviews revealed a range of challenges, constraints and participants' future expectations that allowed the study to present a more holistic picture of the matter. While participants recognized several limitations, such as technical barriers and inconsistent participation, they largely viewed eTwinning as a valuable platform for promoting student-centered learning and teacher development.

In conclusion, the findings of this study, drawn from both quantitative and qualitative data sources, present a broad picture of the effects of eTwinning projects on language teachers' professional development. Questionnaire findings indicated high levels of agreement regarding improvements in digital competencies, intercultural awareness, and global networking, particularly within the cognitive and affective dimensions. Open-ended responses reinforced these insights, underscoring participants' enhanced teaching practices, the motivational value of real-world language use, and increased opportunities for collaboration. The thematic analysis of focus group interviews further deepened these findings, revealing key themes such as enhanced student motivation and engagement, professional growth and reflective teaching practices, challenges and constraints, and future intentions and plans of the participants.

The existing literature accepts online learning platforms as beneficial tools for teacher learning, reflection, and innovation (Cachia et al., 2010; Duncan-Howell, 2009; Shulman & Shulman, 2004). This study revealed improvements in pedagogical knowledge, confidence, and motivation. These findings align with the conceptualization of teacher learning as a social and continuous process (Palincsar et. al., 1998; Lave & Wenger, 1991). The quantitative data showed that teachers view eTwinning as a valuable tool for improving their skills, motivation, collaboration, and classroom practices. The qualitative data gathered from focus group interviews supported this; teachers mentioned that the eTwinning projects had influenced their instructional approaches, emotional well-being, professional identity, and collaborative skills. The data also reinforced the idea that when professional development is authentic, collaborative, and technologically supported, such as eTwinning, it becomes more impactful and sustainable (Başaran et al., 2020; Demir & Kayaoğlu, 2021; Kızılaslan & Başkan, 2023; Trust et al., 2016).

The findings also suggested that eTwinning functions as an online professional learning platform where teachers actively design projects, exchange ideas, and improve pedagogical

practices. Many participants expressed that they acquired new instructional strategies, improved their digital literacy, and felt more empowered to implement new strategies in the classroom. These experiences were interrelated; as cognitive gains often led to greater affective engagement, which consequently enhanced actional changes in teaching practices, all supported by social collaboration. This cycle is consistent with Desimone's (2009) core features of effective professional development, which encompass content focus, active learning, coherence, duration, and collective participation. In this study, teachers highlighted that eTwinning's project-based, intercultural, and peer-supported nature offered fruitful learning opportunities beyond traditional in-service training.

The study highlighted that the eTwinning platform enabled both teachers and students to enhance their digital literacy. Teachers reported an increase in the use of Web 2.0 tools and digital literacy. This data aligns with previous studies, which reported on eTwinning projects' positive effects on teacher knowledge and skills related to technology use, web 2.0 tools and digital literacy (Başar & Ada, 2023; Gökbulut, 2023; Kostas & Ioannidou, 2023). Moreover, the data revealed that engaging in eTwinning projects contributes to teachers' professional identity. Teachers expressed that organizing and participating in international projects raised their self-confidence. They also felt themselves as reflective practitioners, innovators, and cultural ambassadors. The acknowledgement of their contributions within national and international networks provides an additional source of motivation for their professional development. The conclusions drawn reflect that the platform significantly indicates improvements in both affective and social aspects, constantly supporting each other.

It was also highlighted in this study that eTwinning projects were seen as a source of motivation and self-reflection, along with innovative classroom practices. Acar and Peker (2021) also found that the eTwinning platform plays a crucial role in enhancing teachers' professional skills and personal perspectives. Their study suggests that participation in eTwinning can lead to notable shifts in educators' attitudes toward teaching. It is crucial to note that the participants in Acar and Peker's (2021) study were teachers engaged in eTwinning projects and awarded with quality labels. This reflects that the participants of their study had shown notable commitment to the platform. Turkish participants of this study also reflected on recognition and acknowledgements at various levels. They stressed that the attitudes of district and provincial directorates for national education determine the type of incentives and acknowledgements among educators. While some

provincial directorates hold ceremonies to honor teachers who have achieved quality labels, others do not provide any form of recognition. Notably, the foreign participants of this study reported a lack of comparable recognition.

Nevertheless, certain challenges and constraints of eTwinning participation also emerged through this study. The most common challenge was the time allocation; teachers reflected that they needed additional time to complete project tasks. Yet they experienced trouble in managing both the school duties and the project demands. Extra effort was required to manage projects for both teachers and students. Participants also reflected challenges such as varying levels of technological readiness and variability in institutional support, which support challenges documented in previous studies (Camilleri, 2016; Demir & Kayaoğlu, 2021; Kızılaslan & Başkan, 2023).

In conclusion, the findings of this study align well with the previous literature, suggesting that participation in eTwinning projects enables an autonomous, holistic form of professional development, nurturing each aspect that this study focused on cognitive, affective, actional and social. It was observed that improvements in teacher cognition led to the application of innovative classroom practices, which ultimately enhance self-satisfaction and encourage the exchange of practices. The subsequent sections of this chapter discuss the four dimensions of professional development: cognitive, affective, actional, and social in detail. The findings of this study will be examined considering previous research, addressing practical consequences for educational settings.

5.1.1. Cognitive Aspect of Professional Development

The existing literature suggests that the cognitive aspect of professional development involves the processes of the acquisition and improvement of teachers' knowledge, pedagogical reasoning, and instructional decision-making processes (Avalos, 2010; Guskey, 2002). This aspect can be examined through how participation in collaborative, technology-mediated projects influence teachers' understanding of curriculum design, technology integration, and instructional practices in the eTwinning context. The findings of this study reflect that eTwinning acts as a valuable tool for fostering cognitive growth among English language teachers.

The questionnaire data indicated that most of the participants experienced improvements in their instructional knowledge and digital literacy. For example, the majority of participants agreed

or strongly agreed with statements such as “Engaging in eTwinning Projects has expanded my understanding of teaching theories and methodologies” and “Engaging in eTwinning Projects has deepened my knowledge of information and communication technologies (ICT)”. These reflections correspond with the results of Trust et al. (2016). Their study revealed that Professional Learning Network activities improved cognitive growth by introducing new insights and supporting reflective teaching. This led to improvements in their teaching practice. Their study also emphasized that new teaching strategies, assessment ideas, and web-based resources were provided by their PLNs. Abril & Palacios-Hidalgo's (2023) study also aligns with this notion by indicating enhancements in participants' digital skills.

The qualitative data supported these findings. In the focus group interviews, 72.7% of participants expressed that their instructional practices had evolved positively because of cognitive gains through eTwinning projects. They reported exposure to new teaching techniques, lesson planning strategies, and assessment tools. As one teacher explained:

“Yes, actually, I find a chance to observe my colleagues' teaching methods and how they make their lessons more engaging and relevant for their learners' level and needs. I also promote lots of ICT tools and how to use and apply them in my lessons. Each step of the project makes me alter in my teaching ways, and I usually look for something new and applicable.” (O.E.P.14)

This reflects a shift from routine teaching to a more reflective practice. By participating in eTwinning projects, teachers become part of an international network of EFL teachers, which enables them to share their teaching experiences and develop their technological pedagogical content knowledge and organizational skills (Kızılaslan & Başkan, 2023).

Globally, job-embedded professional learning is becoming more established, typically focused on teachers collaborating in curriculum development through activities like joint planning, lesson studies, and various forms of action research (Darling-Hammond, 2017). A significant theme of this study was the development of teachers' cross-curricular design abilities. Participants noted that working on transnational projects required them to align their content with both local and international curricular goals. This alignment across various curricula encouraged increased adaptability and innovation in their lesson planning.

One teacher mentioned her curriculum design experience as follows:

“For example, I always choose projects that are connected with the things that I like. For example, I'm passionate about ecology, and our school is an eco-school, and I always choose some

eco projects, and then I incorporate ecology into my lessons or projects. Learning English in some way, it can be true stories, it can be about Easter, about Christmas that we celebrate, so I always incorporate projects in the lessons, so they become part of the lesson.” (F.G.P.5)

The collaborative aspect of eTwinning also played a role in the cognitive development of teachers. 94% of the participants agreed that eTwinning has created environments to exchange ideas, experiences, and resources with national and international colleagues. Holmes (2013) asserts that this social dimension of eTwinning corresponds with Vygotsky’s (1978) sociocultural theory, which states that the construction of knowledge is facilitated through social interaction. By participating in a community of practice (Wenger, 1998), teachers not only gather knowledge but also act as co-creators, sharing their perspectives and obtaining constructive feedback.

Lastly, educators observed an enhanced capacity to tailor teaching methods to meet individual student needs, which they attribute to their experiences in varied classroom environments provided by eTwinning. Questionnaire data shows that teachers’ understanding of student learning was enhanced, with 87% agreeing or strongly agreeing. Teachers involved in eTwinning projects noted that these initiatives greatly contribute to their professional growth. As a result, it was suggested that eTwinning projects grow students' motivation, improve their use of Web 2.0 tools, and increase their interest in learning foreign languages (Çınar et al., 2024; Gökbulut,2022). The following excerpt supports this notion.

“eTwinning projects bring together language learning, digital literacy, ICT use, and science and mathematics, as well as various social sciences, encouraging active student participation.” (O.E.P.28)

Teachers who organized more than six eTwinning projects reported significantly more positive outcomes, indicating that deeper and more frequent participation leads to greater developmental gains. Experienced teachers reflected improved understanding in teaching theories and reflective practices, which indicates that continuous participation leads to enhanced cognitive growth. The results also show that the number of eTwinning projects had a visible effect on teachers’ professional development experiences, especially within the cognitive domain. Statistically significant improvements were observed ($p = .01$) in teachers’ understanding of ICT, suggesting that continuous participation in eTwinning projects develops digital pedagogical skills at a higher level. These findings are in line with earlier studies that highlight the advantages of ongoing engagement in collaborative international projects. The data highlights the notion that

continuous involvement in eTwinning activities can lead to a greater cognitive improvement, providing teachers with both theoretical insights and practical resources.

This study also suggests that engaging in the eTwinning projects encourages teachers to explore research in the field of education among teachers. Participants from Türkiye reported a higher mean rank (51.33) than their international peers (47.72), which indicates that eTwinning projects serve as a medium for scholarly engagement for Turkish teachers. However, regarding the innovative practices and exchanging practices with colleagues, participants from other countries expressed themselves slightly higher (mean ranks = 52.00 vs. 50.05). Despite slight differences that were observed, they reveal differences in how teachers from different countries attribute importance to the platform.

To sum up, the participants of this study revealed their perceptions regarding the cognitive aspect of participation in eTwinning projects, highlighting improvements in digital skills, pedagogical understanding, and innovation in instruction. These results highlight the platform's significance not merely as a collaboration tool but as a valuable environment for intellectual and professional development. As educators face the challenges of 21st-century teaching, engaging in platforms such as eTwinning could act as a driving force for continuous cognitive growth.

5.1.2. Affective Dimension of Teacher Professional Development

The affective dimension of professional development, often neglected in conventional traditional PD methods, refers to the feelings, motivation, attitudes, and sense of professional identity that teachers experience. Researchers suggest that this aspect is crucial because affective involvement and self-image significantly affect teachers' willingness to grow, collaborate, and gain new practices (Day & Gu, 2007). The results of this study further supported the literature, revealing that eTwinning facilitated affective growth among educators. This enabled educators to improve their emotional well-being, self-confidence, and enthusiasm for teaching.

A significant 81% of the teachers participating of the focus group interviews reported increased motivation in their teaching practices as a direct result of their involvement in these collaborative projects. Many teachers described the experience as “being up to date,” “motivating,” and “inspiring.” These themes align with the respondents of Trust et al.'s (2016) study. They described their feelings as "energized," "engaged," "inspired," and "invigorated". This sense of

refreshment can be attributed to the dynamic nature of eTwinning, which allows teachers to work on creative, interdisciplinary projects with colleagues across Europe.

Additionally, the highest level of "Strongly Agree" responses is seen in " Participating in eTwinning Projects has inspired me to move beyond my comfort zone and embrace new opportunities for professional growth." (56.9%). Gajek (2017) examined the integrative role of distance learning approaches and their contribution to the educational landscape and found that teachers receive additional professional benefits from collaborative work, such as satisfaction, experience, and confidence, amongst their primary roles as organizers, guides, motivators, and sometimes even controllers. The feeling of belonging to a larger professional community empowers staff and decreases the opportunities for isolation and abandonment while increasing the potential for enhanced student learning. One participant reflected:

"... the international environment pushes me to do my best and to learn from other colleagues from all over Europe. I have expanded what I can call "My comfort zone" and feel more comfortable using new teaching methodologies." (O.E.P.50)

Smith (2017) suggests that it is essential to reassess the current role of teachers in professional learning, with a specific focus on aspects such as ownership and self-direction, as well as identity and expertise. Engagement in eTwinning also promoted a stronger sense of professional identity. Educators noted that they felt more appreciated and capable, especially after finishing projects successfully, obtaining feedback from global partners, and seeing the effects on their students. Golombek (2017), within a Vygotskian sociocultural lens, suggests that individuals assess situations based on potential outcomes and are motivated by the emotional importance of achieving desirable results. The findings demonstrated that recognizing the source of emotional dissonance allowed the educator to reframe her perception of the teacher-learner as a learner. Several interviewees expressed that eTwinning revived their commitment to the teaching profession and helped them see their role through a new lens. The subsequent excerpt from an open-ended question serves to substantiate this notion.

"I believe that participating in eTwinning projects have obviously improved my professional development. I feel myself more motivated and competent in teaching. The quality labels and exchanging ideas and teaching practices with teachers from different countries are also sources of motivation for me." (F.G.P.4)

Existing literature indicates that a sense of recognition and Quality Label awards, given to educators who successfully implement projects, act as a significant source of motivation for teachers (Acar & Peker, 2021; Kızılaslan & Başkan, 2023). This study demonstrates that increasing recognition among colleagues and receiving appreciation in the workplace leads educators to feel more enthusiastic about pursuing new projects. Kızılaslan and Başkan's research supports this idea, highlighting that eTwinning encourages teachers to pursue professional development and engage in additional projects.

Self-regulated professional development is recognized as an effective way to enable teachers to enhance their practices continuously, as they learn through participatory enquiry and reflective practice (Ermeling, 2009). Accordingly, the affective outcomes of this study extended to self-confidence and autonomy. The majority of teachers stated that they felt more confident in experimenting with new methods and using digital tools. This confidence often emerged through repeated success in planning, executing, and reflecting on collaborative projects. In this study, teachers who initially felt uncertain about their technology or communication abilities described how eTwinning provided a supportive environment for growth, which gradually built their sense of competence. One of the teachers expressed that:

“Participating in eTwinning projects has given me the chance to learn from my peers, it has boosted my self-confidence and enforced my will to learn more and do better.” (O.E.P.15)

Nonetheless, the affective aspect was not without its challenges. A small portion of teachers (around 18%) experienced moments of stress, particularly during the initial phases of project planning or while balancing daily school duties with eTwinning responsibilities. Furthermore, the highest percentage of neutral responses pertains to "Motivation from Colleagues," which stands at 15.7%. This can be attributed to teachers highlighting challenges with partners who failed to fulfil their responsibilities on time or abandoned projects midway. Occasionally, reluctant project partners caused others, who covered the tasks meticulously, to fail to receive the Quality Label Awards. Nonetheless, overall perceptions of educators remained positive despite these initial obstacles. Participants reported that they managed to adapt over time and effectively coordinated with their international colleagues. This indicates a diverse perception in this area, raising questions about the affective dimension. Yet, the majority of educators viewed these challenges as temporary and reported that the emotional benefits outweighed the difficulties. Support from project partners, student enthusiasm, and noticeable results often helped to mitigate initial concerns.

This study reveals significant differences in the affective dimension of professional development among eTwinning participants. Experienced teachers reported a higher agreement that eTwinning triggered their curiosity for learning and cultivated a desire for continuous professional development. Moreover, growing empathy for others and understanding cultural differences were rated higher by experienced teachers. These findings highlight the importance of ongoing involvement in eTwinning projects, which affects overall benefits regarding affective engagement along with intercultural awareness. In the same line, teachers who organized and ran more eTwinning projects reflected increased motivation led by recognition ($p = .01$), a greater passion for teaching ($p = .02$), and a deeper sense of purpose in their professional practice ($p = .01$). This highlights the holistic advantages associated with prolonged involvement in eTwinning projects.

It is important to note that a unity in perceptions among cross-national participants was observed regarding the affective benefits of eTwinning projects. Participants emphasized the motivation from recognition, positive feedback, and a renewed passion for teaching elements of the affective aspect. The educational backgrounds of the educators led to no significant differences. However, participants with a bachelor's degree reported enhanced overall motivation, which suggests that further research examining the influence of social networks on various educational levels might be needed.

In conclusion, this study and the previous research agree on the positive impact of eTwinning projects on the affective development of teachers. Enabling increased motivation, a strengthened sense of identity, and improved self-confidence via cross-border collaboration and student engagement, eTwinning projects stand out as beneficial instruments. As asserted by the researchers (Day & Gu, 2007; Gajek, 2017; Kızılaslan & Başkan, 2023; Pfingsthorn, 2019), teachers who feel emotionally supported and practically improved tend to sustain their continuous professional development. Notably, this study revealed that colleague motivation is a relatively weaker aspect of eTwinning projects, which attracts further focus and attention.

5.1.3. Actional Dimension of Teacher Professional Development

The actional dimension of teacher professional development pertains to the integration of beliefs and knowledge into classroom practices. It encompasses how teachers implement new

strategies, initiate change, and take professional action based on their evolving understanding. Shulman and Shulman (2004) define adaptive action as essential to teaching. Their 'Fostering a Community of Learners' (FCL) framework highlights the significant demands on teachers, including curriculum design and adaptation, managing classroom rotations, assessing diverse students' understandings, integrating disciplinary knowledge with motivation and interactions, and using technology in daily activities. In this study, teachers' participation in eTwinning projects seemed to have a notable impact on their instructional practices, technology use, student engagement and professional identity.

Quantitative findings demonstrated strong agreement with action-based statements. The majority of the participants (86.2%) reported regularly integrating ICT tools into their instructional practice, while 81.3% indicated noticeable improvements in student engagement. Additionally, most of the participants expressed feeling more confident in exchanging teaching practices with colleagues. It can be inferred that eTwinning increased content knowledge along with tips for implementation, which aligns with Kennedy's (2016) concept of "theories of action". This theory highlights the importance of supporting autonomy and agency through collaborative, practice-based experiences.

Qualitative data from the focus group interviews added depth to these patterns. Approximately 64% of the participants expressed that they redesigned their lesson plans or introduced new methodologies because of their involvement in eTwinning. One participant reflected:

"Via the eTwinning projects, I learnt many web tools and AI apps, and I integrate these into my classes. It is fruitful and enjoyable for my students because they were born into the technology, and we cannot teach them anything with classical methods." (O.E.P.43)

This reflection indicates that by experimenting with new methods, such as cross-border online collaboration and project-based learning, teachers transitioned from passive receivers to self-regulated professionals. Fabbro et. al.'s (2023) participants mentioned that eTwinning projects using the Project-Based Learning (PBL) model enable teachers to design education collaboratively and have significantly contributed to their development of competencies in Teaching and Teacher Professionalism. Additionally, 81.3% of teachers expressed that their classrooms had become more dynamic, and learner centered. Several mentioned that they began to co-construct learning experiences with students

“...Our lessons were much more interesting for students because of using English in real-life situations, just like I said before, and it was motivating for them because they had to learn something, they had to learn some new words, some new expressions to talk to their friends, and it was great.” (F.G.P.6)

Another participant reflected that:

“... it was the main expectation that something new can be in the classroom, not only a book, not only a notebook the pen but something different, something real that they can use in English. In real-life situations because when we met, we also met online, and our students speak English in a normal situation, not only artificially. When we teach English and when the students learn it, they only use it during lessons, and it's very artificial, not real, but within eTwinning projects, they could use it in real-life situations, so I think that was the most important expectation.” (F.G.P.7)

These insights resonate with the findings of Çınar et al. (2024), indicating that eTwinning projects boosted students' motivation, their utilization of Web 2.0 tools, and their interest in learning foreign languages. The research underscores notable student involvement with technology and cross-cultural communication, reporting figures such as an 84% enhancement in Web 2.0 usage and a 72% rise in motivation.

Nevertheless, not all feedback was without limitations. Around 18% of participants identified with a lack of institutional support. Furthermore, a considerable 54.5% of participants reported encountering significant obstacles related to time constraints and the challenges of utilizing the updated eTwinning platform effectively. The study of Kızılaslan & Başkan (2023) highlighted similar drawbacks, including the prolonged duration of certain projects, the reluctance of some international partners to engage their students, and the need to motivate and encourage students in their language learning practices or a rigid curriculum that limited the extent to which they could implement their ideas. These findings suggest that while the incorporation of collaborative and intercultural learning experiences can improve educational practices, there is a need for continuous support and training for educators.

In the same vein, the participants of Fabbro et. al.'s (2023) study expressed that with targeted training on the integration of eTwinning projects into the school curriculum, their colleagues would become more engaged in eTwinning projects. Additionally, they assert that official recognition of this eTwinning learning experience is needed for in-service schoolteachers

in Italy. To sum up, addressing the identified challenges and providing ongoing support and recognition for eTwinning initiatives are essential for enhancing teacher engagement and maximizing the benefits of collaborative and intercultural learning in schools.

The results of this study indicate that actional outcomes varied according to teaching level and length of eTwinning engagement. While primary school teachers generally reported lower levels of actional development, particularly in integrating ICT tools into their teaching, secondary and high school teachers reported more active implementation of eTwinning-acquired practices. Additionally, teachers who participated in 15 or more projects reported significantly higher agreement in utilizing project-acquired knowledge in their classrooms, designing lessons with diverse perspectives (mean rank = 55.72) and observed improvements in student engagement and learning outcomes (56.70), particularly among more experienced participants. Regarding this, reflections from both Türkiye (52.13) and international participants (49.46) agreed that ICT integration and enhanced student engagement were among the most positively impacted outcomes of project involvement. These findings suggest that long-term and more intensive engagement in eTwinning leads to concrete transformations in teaching practices, specifically in technology integration, pedagogical innovation, and intercultural lesson design.

In summary, findings suggest that eTwinning functions as a tool for pedagogical innovation, collaborative exchange, and empowered professionalism for the actional dimension. Teachers engaged in the projects not only became more confident and collaborative but also more willing to implement innovative practices in their classrooms and take actions that reflected a commitment to continuous improvement and student-centered learning. A participant's reflection encapsulates this concept.

“Well done to everybody who joined, I mean, attempting to do eTwinning because you know it's a fancy thing to do nowadays. Breaking the habit, making new neuron connections, and that's what we do because we expose ourselves to something unknown to us, and we get together with people we've never met. So that's when they all get combined, you find yourself in a picture where you all constantly try to achieve something. You challenge yourself to do something, it also benefits you. I mean, instead of doing the routine work at school, it just spices things up a little bit for the teacher. I think that's the good side of it...” (F.G.P.3).

5.1.4. Social Dimension of Teacher Professional Development

The social aspect of professional development through eTwinning involves connecting with colleagues, building communities of practice, exchanging knowledge, and jointly developing pedagogical practices (Lave & Wenger, 1991; Wenger, 1998). eTwinning offers teachers to work on collaborative multinational projects, which attracted the attention of researchers with proven benefits regarding social aspects (Holmes, 2013; Kızılaslan & Başkan, 2023).

This study also supported the existing research findings, revealing that eTwinning led to enhancements in teachers' social growth by connecting to global professional networks, encouraging peer support, and fostering a sense of community. Questionnaire data showed that the majority of the participants agreed or strongly agreed that the eTwinning projects enabled them to build connections to the global teaching community. Another prominent finding is that eTwinning projects nurtured a sense of community among peers. In the same vein, the statement "I have broadened my professional network through collaboration" ($M = 4.32$) reflect the potential of eTwinning in creating professional connections.

Additionally, participants of this study mentioned that eTwinning projects facilitated building a community of practice, which aligns well with Wenger's (1998) Community of Practice (CoP) framework. Participants reflected on collaborating with an active group of educators who support and guide each other with shared goals and practices. A notable amount of 68.2% focus group interviewees highlighted the community-building aspect of eTwinning projects, which connects them to a global network of educators.

This aspect helped educators to overcome isolation and experience a culture of community. One teacher remarked:

"I would say that we created community where all of us were kind to each other helpful to each other if someone doesn't know how to use a tool or how to present something we would contact each other to WhatsApp or some other channel and we would say you can use this tool you can use that one... This is good, one this is better, and I would say it really improved my teaching." (F.G.P.11)

In line with building communities, collaboration among educators has emerged as a significant element in developing professional growth. The findings from Başar and Ada (2023) support this finding. They asserted that eTwinning activities promote a collaborative environment

that nurtures 21st-century education skills. 91% of the participant teachers of this study reported that eTwinning projects fostered collaboration with both local and international colleagues. Holmes (2013) asserts that collaborative platforms such as eTwinning impact teachers' cognitive development and social interactions positively by highlighting the platform's potential in forming cross-border collaborations.

Therefore, fostering collaboration through programs like eTwinning not only enriches individual teaching practices but also cultivates a supportive learning community that can adapt to the evolving educational landscape. Furthermore, participants of this study reported strong engagement in collaborative teaching activities at their institutions, with an average score of 4.18. This indicates that participation in eTwinning has facilitated not only global partnerships but also enhanced teamwork in local educational environments. A participant's response to the open-ended question supports this notion.

“Working on eTwinning projects improves my professional experience in a holistic way. Cooperation with colleagues gives us a lot. Starting from the exchange of ideas and experiences, through teamwork in which we improve our social skills, all the way to the use of new ICT tools and the realization of project outcomes through joint work with full acceptance and support of our colleagues. It broadens our minds and opens our hearts as we get to know other cultures. It is a life-changing experience.” (O.E.P.21, from Croatia).

Collaboration through eTwinning also promoted knowledge sharing and the distribution of expertise. Teachers shared lesson plans, digital tools, and classroom strategies, enriching each other's pedagogical repertoire. Approximately 88% of the participants noted that these collaborative efforts had a direct impact on their teaching methods. Such collegial exchanges support what Kızılaslan & Başkan (2023) reported, e-Twinning projects allow teachers to experience peer observation or mentoring practices by exchanging practices with international colleagues. Trust et al. also suggest that the social aspect of Professional Learning Networks helps overcome isolation, fosters collaborative learning, and connects educators with global audiences.

In addition, this study revealed that eTwinning promoted intercultural dialogue among educators; 88.3% of participants felt that the eTwinning projects enhanced their cross-cultural communication abilities, emphasizing its significance in improving interactions across cultures. Participants reflected on their participation in eTwinning projects, enabling them to reassess their assumptions about different cultures. Educators also reflected on improving their L2 skills,

communicating through joint projects, which resonates with Baker's (2015) assumptions about Intercultural Communicative Competence (ICC). He suggests that while assessing language proficiency, the focus should be on effective communication among individuals from various linguacultural backgrounds rather than native-like language proficiency. This highlights the value of eTwinning as a tool for developing intercultural skills, contributing to meaningful global interactions in educational settings.

Demir and Kayaoğlu's (2021) study highlighted improvements in language skills of the students, intercultural understanding, and motivation because of eTwinning participation. Additionally, they reflected on students' social growth, along with connections across different countries, underscoring the broader educational benefits of online collaborative platforms. Regarding this, the participants of this study mentioned that they observed a sense of global citizenship among students due to the eTwinning projects' cross-national collaborative nature. Students engaged in forums, exchanged ideas while collaborating on projects, which enabled students to gain a better understanding of different cultures. This exposure both enriches their learning experiences and motivates them to think and evaluate the world around them empathetically.

However, some teachers (around 37%) reflected initial challenges in building effective partnerships, due to unmotivated or inactive partners, which occasionally disrupted the collaborative spirit. This finding supports Camilleri's (2016) study, which revealed some challenges, including a reluctance among teachers to engage, insufficient digital skills, poor internet connectivity, and instances of racism or stereotypes among some teachers, which impeded interculturalism. Notably, the participants of this study never reported instances of racism. Yet, with experience, participants learned to manage these issues effectively and even reported improved interpersonal and intercultural communication skills as a result.

This study also revealed key insights into the social aspects of professional development, emphasizing how factors like academic background, school type, and duration of participation affected teachers' experiences. Notably, participants with a bachelor's degree reported greater perceived gains in cross-cultural communication (Item 25), suggesting that those with less formal training may find eTwinning particularly transformative for collaboration and intercultural engagement. This transformation could be attributed to teachers with higher degrees experiencing greater professional development opportunities.

Comparative analysis among teaching levels revealed that high school teachers gained more benefits in certain areas. These teachers reported that they experienced a sense of community and collaboration with international colleagues more than their counterparts who work at primary and secondary schools. This might be attributed to high school education practices, which are more autonomous, and project based. The eTwinning project experience also indicated differences in the exchange of ideas and cross-cultural collaboration. Participants with more experience reflected stronger agreement on these notions, which indicates the importance of ongoing engagement on the social aspect. Active participation leads to expanded networks, which enable feeling connected and supported by national and international educational communities. Previous research resonates with this finding (Acar & Peker, 2021; Holmes, 2013; Kaminski, 2011), highlighting the significance of online collaborative networks for teacher learning.

In conclusion, regarding the social aspect of professional growth through eTwinning, significant findings include enhanced collaboration, building professional networks, developing intercultural appreciation, and knowledge exchange with international colleagues. All of which are accepted as crucial for continuous teacher professional growth, allowing educators to grow as active members of a broader professional community. The eTwinning platform supports teachers through cultivating professionally situated and relationally rich identities for educators (Avalos, 2010).

5.2. Utilization of the eTwinning Platform for Teacher Professional Development

This section aims to discuss the findings considering existing literature to address the second research question. As mentioned earlier, it was observed that limited studies examined the utilization of the eTwinning Platform's direct effects on teacher professional growth. Therefore, this study investigated how educators utilize the eTwinning platform to enhance their professional growth by combining quantitative and qualitative results. The findings indicate that the platform addresses the needs of teachers by providing various options to nurture the cognitive, affective, social, and actional aspects of teacher development. Comparative analysis showed that the extent of use differs depending on teachers' experience, educational background, and teaching environment.

The eTwinning portal offers opportunities for educators, such as online webinars, project kits, and forums to interact with their peers. In this regard, previous literature recognizes it as an effective tool for PD (Holmes, 2013; Kızılaslan & Başkan, 2023; Scimeca et al., 2009). This research revealed that the eTwinning platform is an effective resource for enhancing teachers' professional growth by leveraging technology. Participants reflected on utilizing the platform for collaboration, accessing professional development courses, and expanding their professional networks, which seems to be a key area where eTwinning appears to have a visible impact. Participants mentioned how the platform enabled them to connect with the global teacher community led to their exposure to diverse pedagogical perspectives. This finding resonates with Wenger's (1998) Community of Practice framework, which suggests shared activities within a community context enhance identity formation and mutual learning. Gajek (2017) analyzed 1,800 eTwinning projects submitted for the eTwinning National Quality Label undertaken in Polish schools. The findings underscore the dynamic nature of eTwinning through the exchange of good practices and refining teaching methodologies, which encourage teachers to act as learners, collaborators, and reflective practitioners.

The platform's resource-sharing opportunities were also recognized by the participants of this study. Educators reported leveraging the eTwinning portal to explore innovative teaching materials and methods. This active involvement of teachers indicates that the eTwinning platform acts as a medium for self-regulated learning, aligning with earlier research that recognizes the platform's role in nurturing self-regulated teacher learning (Lewis & Decuypere, 2023). Lewis & Decuypere's study investigated the effects of the eTwinning Platform on teacher professionalism and revealed that the eTwinning Platform facilitates autonomous professional development.

Additionally, the experiences reflected by the participants of this study are similar to those in Hamamcioğlu's (2023) research. They emphasized the significance of peer support and motivation, which points to the significance of collaborative, need-oriented, and context-specific professional development. Hamamcioğlu acknowledged that the online platforms have the potential to advance professional learning by providing seminars and courses. This draws attention to the eTwinning Platform's role in accessing various professional development opportunities based on teachers' needs and interests. The findings of Acar and Peker's (2021) qualitative case study strongly support the above-mentioned advantages of the eTwinning platform. Additionally, their study pointed out another benefit of the platform, the enhancement in teachers' attitudes

toward their profession. This study also highlights teachers' affective growth and increased motivation. Together, these studies highlight the eTwinning platform's transformative potential in reshaping the attitudes of educators.

Different from previous research, this study also examined educators' use of groups and collaborative spaces within eTwinning. Teachers reflected on using these options to discuss and engage with peers. Nevertheless, focus group participants mentioned that some of these groups were seen as inactive or poorly moderated. Teachers also noted that the groups which were beneficial in the beginning lose their activity over time. This discrepancy underlines the importance of ongoing facilitation and community management to ensure group engagement. In contrast, participation in online learning activities such as webinars and online training appeared less frequent. Although many teachers acknowledged the pedagogical value of these sessions, qualitative data suggested time constraints and scheduling conflicts as barriers. However, those who participated in these activities often reported increased motivation and confidence in implementing new methods.

While the eTwinning platform provides meaningful professional development opportunities to all participants, certain patterns emerge based on geography and teaching context. Teachers from Türkiye seemed to engage more actively with the platform's features, particularly groups, resource sharing, and networking. This may reflect the growing institutional and cultural focus on online collaboration in Türkiye or a greater motivation to explore international opportunities. In contrast, participants from other countries placed slightly more value on the exchange of ideas and collaborative innovation, indicating that they may prioritize professional dialogue and peer learning across borders. The length of eTwinning engagement showed no significant differences regarding platform utilization.

Nevertheless, the findings of this study reported usability issues as a barrier that hinders the platforms' benefits. The majority of the focus group interviewees mentioned that they experienced difficulty navigating the updated version of the platform (ESEP). This challenge could stem from the changes made to the technical design. Educators had difficulty accessing resources and participating in groups, which led to a decrease in their motivation to engage with the platform. Some of the participants even reported that they discontinued their involvement in eTwinning projects due to the perceived complexity and navigational challenges of the platform.

To conclude, the eTwinning platform was utilized by the participants of this study actively to nurture various aspects of professional development. The prominent finding to highlight is that teachers acted as co-creators of knowledge, and not just the recipients of new information. The findings underscore the platform's potential to function as a professional learning platform, presenting various usage patterns based on teacher experience, national circumstances, and time availability.



CHAPTER VI

CONCLUSIONS

This final chapter displays the key conclusions drawn from the present study, which examined English language teachers' professional development through their involvement with the eTwinning platform. To explore how the platform contributes to the cognitive, affective, actional, and social aspects of teachers' growth, an explanatory sequential mixed-methods research design was utilized. This chapter summarizes the main findings and discusses their implications for educational settings. Finally, this chapter provides recommendations for future research.

This research investigated the effects of eTwinning projects on the cognitive, affective, social, and actional aspects of professional development, alongside how educators utilized the platform for their professional growth. Data were collected through an online questionnaire and follow-up focus group interviews, enabling a comprehensive understanding of how eTwinning supports teacher growth. The study contributes to the growing body of literature on teacher professional development via online learning communities, especially within the eTwinning context.

6.1. Summary of Key Findings

This study suggests that the eTwinning platform serves as a dynamic environment for supporting multiple dimensions of professional development. Findings revealed strong agreement among participants that the platform had a positive impact on their growth, particularly in professional networking, collaboration, and access to innovative teaching resources. This reflects that educators perceive eTwinning as a platform that connects teachers within the global network and enables continuous learning and exchange of practices.

This research reveals diverse aspects of cognitive development, including increased digital skills, expanded pedagogical understanding, improved curriculum development abilities, and enhanced practice. Technological advancements continue to reshape educational settings, leading to evolving needs for both teachers and students. At this point, teachers seek new ways to meet

these needs, and the eTwinning platform may serve as a valuable tool for continuous cognitive and intellectual growth.

The eTwinning projects contributed to the participants' affective growth by enhancing motivation, rekindling their passion for teaching, and fostering a stronger sense of purpose. These gains could be attributed to the collaborative and rewarding nature of project-based work and recognition received within the platform. eTwinning experience showed variations in perceptions; participants with longer engagement reported a higher agreement on eTwinning's positive effect on curiosity and a desire for ongoing professional development, highlighting the importance of sustained engagement in eTwinning projects, which enhances intrinsic motivation and professional identity over time. Notably, participants from various demographic backgrounds expressed similar affective gains regarding the eTwinning projects. Prominent affective benefits, including growing empathy for diverse cultures and intercultural awareness, were observed, indicating that the eTwinning projects and the platform nurture common affective gains among participants, regardless of their national backgrounds.

One of the most prominent findings of the actional aspect is the implementation of technology-related applications. Teachers reflected on integrating more ICT tools, leading to noticeable improvements in student motivation. Moreover, eTwinning participation enables teachers to feel more confident in exchanging teaching practices with colleagues. Additionally, teachers with a greater number of eTwinning projects reported that they integrated project-acquired knowledge in their classrooms, designed lessons with diverse perspectives and observed enhancements in learning outcomes. Accordingly, the eTwinning experience emerged as a determining factor in enhanced confidence through the integration of innovative practices and exchanging teaching practices with peers. Fostering actional development, eTwinning enables teachers to share personal perspectives, form cross-border collaborations, and experience leadership in professional settings.

This study revealed valuable insights into the social aspect of professional development, highlighting the intercultural dialogue among educators. Participants found eTwinning projects efficient in fostering cross-cultural interactions. Some of them also reflected observed transitions in their cultural assumptions after they engaged with the eTwinning projects. Notably, perceptions of the participants showed variations based on factors such as academic background, teaching levels, and the duration of their participation.

The second research question examined the utilization of the eTwinning platform for professional development. The questionnaire data reported high levels of engagement within the eTwinning platform, revealing the main purposes as: the use of resources, joining collaborative activities, and attending courses. Participants also reflected that groups on the eTwinning platform were observed to be inactive, and they lost interest in them over time. Despite these challenges, the platform is revealed to be an efficient tool for PD, particularly among Turkish teachers, who reported higher levels of participation in webinars, group discussions, and resource sharing compared to their international peers.

To sum up, this study sheds light on how eTwinning projects support multiple aspects of teacher professional development, concentrating on cognitive, affective, actional, and social domains. Key findings underscore that the eTwinning platform positively contributed to the professional growth of the participants by facilitating global networking, providing educational resources, and fostering innovative practices. This study also highlights improved intercultural awareness and online collaborations as prominent findings, especially among experienced educators.

6.2. Challenges Identified

Besides the benefits of the eTwinning projects, key challenges that warrant attention were identified. While utilizing the platform and completing the project tasks, some educators experienced difficulties due to the lack of required digital skills. Notably, participants reported significant improvements in digital competencies. This shift suggests that educators overcame the initial challenges and transformed them into meaningful opportunities for professional growth. Time differences and varying academic calendars across countries were commonly cited challenges that led to disparities in project planning and engagement. Regarding collaboration, educators reflected negative experiences with reluctant project partners who abandoned projects halfway through or wouldn't complete project tasks on time, which caused demotivation among partners.

Moreover, participants reported limited support from school administrators, many of whom lacked awareness about the benefits of eTwinning. This insufficient institutional support caused educators to struggle between the project tasks and schoolwork during project implementation.

However, in some cases, the attitudes of the school administrations changed when the projects received Quality Labels and the schools were awarded with eTwinning School Labels. These incentives led to the recognition of the eTwinning projects' benefits and increased administrative support. These findings indicate that despite initial logistical and institutional barriers, educators manage these difficulties through collaboration and professional development over time.

One of the most recurring challenges was the usability of the platform. The recent transition to the European School Education Platform (ESEP) introduced significant difficulties for the participants. The majority of interviewees described the new platform as complex and non-user-friendly, which discouraged some from continuing to engage in the projects. This reveals a discrepancy between the platform's intended benefits and the actual user experience. Addressing these issues could improve the platform's accessibility and impact.

In summary, the study contributes to existing literature by identifying clear challenges that require ongoing support for online professional learning. These reflections reveal that participants had to manage school duties, project tasks and cross-national collaboration simultaneously. This hard work should be recognized and rewarded by the institutions to motivate educators for their ongoing partnerships within the eTwinning community.

6.3. Pedagogical Implications

This study underscores the significance of the eTwinning Platform as a transformative tool for the professional growth of teachers. Reported technical and systemic challenges should be addressed to benefit from the platform more effectively. Local coordinators or school-based mentors could provide ongoing support for beginner teachers. School administrations should motivate educators to engage in eTwinning projects and make necessary adjustments to enable sustained involvement. Besides, differentiated support based on teaching level, experience, and subject area could increase the inclusiveness and accessibility of the platform. In this regard, workshops on the integration of eTwinning projects into the school curriculum would guide teachers in adapting the platform to their unique classroom contexts.

Current PD models highlight the importance of teachers being reflective practitioners who improve themselves through shared experiences and mutual learning. Accordingly, the results recognize the eTwinning platform as a collaborative online platform to support teacher growth.

The platform fosters prominent elements such as interaction, reflection, autonomy, and practice-based development. Therefore, it would be beneficial if the Ministries of Education and institutional policies recognize eTwinning involvement and integrate it into formal professional development plans. Additionally, the eTwinning platform facilitates self-regulated professional development, offering teachers the flexibility to improve themselves based on their individual goals, needs, and interests. Many participants reported that they attended online courses and webinars provided by the platform, which contributed to their pedagogical growth and digital literacy.

In conclusion, this study pinpoints the eTwinning platform's potential as an effective tool for teacher professional development, fostering comprehensive growth in cognitive, affective, social, and actional dimensions. To fully benefit from eTwinning, institutional adjustments should be made. This might include acknowledging and rewarding teachers' involvement, providing structured time and resources, and encouraging self-regulated learning through the platform's training opportunities. Moreover, by integrating informal initiatives such as eTwinning into formal career advancement, education systems may empower teachers to become proactive, collaborative, and globally minded professionals.

These considerations underscore the need for a more systematic approach to online professional development that values flexibility, peer learning, and cross-cultural collaboration.

6.4. Limitations

Several limitations of this research must be acknowledged. As a start, the qualitative phase involved a relatively small group of participants, which may restrict the generalizability of the findings. The number of educators who participated in this study from European countries was also relatively small; therefore, comparative analyses were made between teachers from Türkiye and those from other countries. Specific comparisons could not be made. The reliance on self-reported data carries the risk of response bias, as participants may have provided socially desirable answers or reflected only on recent experiences. Additionally, the research was carried out during a transitional phase when the eTwinning platform was being integrated into the new ESEP (European School Education Platform). This change may have temporarily affected teachers' perceptions and levels of engagement, thereby affecting the validity of findings associated with platform usage.

Lastly, although attempts were made to combine both quantitative and qualitative data, the cross-sectional design of the study limits insights into long-term impacts or changes over time.

6.5. Recommendations for Future Research

Future studies might investigate how ongoing engagement with eTwinning affects teaching practices and student outcomes over time, adopting longitudinal methods. Further explorations can be conducted to identify the conditions that support eTwinning practices on institutional factors such as administrative support, training opportunities, and time allocation. Comparative studies across different countries or subject areas could also provide valuable insights into contextual differences in project implementation and platform. Experimental research can also be utilized to evaluate the impacts of eTwinning projects on specific outcomes, including digital literacy levels and L2 skills for both students and teachers.

Further investigation on the integration of online learning communities into formal teacher professional development programs might provide beneficial implications for both educators and program designers.

6.6. Final Remarks

In conclusion, this study revealed that the eTwinning platform has the potential to function as a significant resource for the professional development of educators. The platform facilitates a community of practices, supporting innovative practices, intercultural awareness and autonomous learning. Although some challenges emerged, eTwinning projects fostered significant improvements in teachers' cognitive, affective, social, and actional developments. As digital advancements and collaborative pedagogical practices become increasingly central to the educational landscape, platforms such as eTwinning play a pivotal role in transforming educational settings.

References

- Abril, C. a. H., & Palacios-Hidalgo, F. J. (2023). eTwinning and the development of language teachers' digital literacy: a comparative study between two European universities. *ENSAYOS Revista De La Facultad De Educación De Albacete*, 2(38), 86–101. <https://doi.org/10.18239/ensayos.v38i2.3368>
- Acar, S., & Peker, B. (2021). What are the Purposes of Teachers for Using the eTwinning Platform and the Effects of the Platform on Teachers? *Acta Didactica Napocensia*, 14(1), 91–103. <https://doi.org/10.24193/adn.14.1.7>
- Attard, K. (2007). Habitual practice vs. the struggle for change: can informal teacher learning promote ongoing change to professional practice? *International Studies in Sociology of Education*, 17(1–2), 147–162. <https://doi.org/10.1080/09620210701433894>
- Avalos, B. (2010). Teacher professional development in Teaching and Teacher Education over ten years. *Teaching and Teacher Education*, 27(1), 10–20. <https://doi.org/10.1016/j.tate.2010.08.007>
- Aydin, G., Toğrul, D., & ÇeliK, A. (2022). The Experiences of Peer Students and their Teachers Teaching Turkish to Foreign Students: An Example of an eTwinning Project. *Sakarya University Journal of Education*, 12(4), 862–885. <https://doi.org/10.19126/suje.1185941>
- Baker, W. (2011). From cultural awareness to intercultural awareness: culture in ELT. *ELT Journal*, 66(1), 62–70. <https://doi.org/10.1093/elt/ccr017>
- Baker, W. (2015). Research into Practice: Cultural and intercultural awareness. *Language Teaching*, 48(1), 130–141. <https://doi.org/10.1017/s0261444814000287>

- Barany, L. K. (2016). Language awareness, intercultural awareness and Communicative Language teaching: Towards Language Education. *International Journal of Humanities and Social Sciences*, 2(4), 257–282.
<http://www.ijhcs.com/index.php/ijhcs/article/download/183/194>
- Başar, F. B., & Ada, Ş. (2023). The Relationship between eTwinning Activities and 21st Century Education and Teaching Skills. *International Journal of Social Science and Education Research Studies*, 3(05), 871-877.
- Başaran, M., Kaya, Z., Akbaş, N., & Yalçın, N. (2020). Reflection of eTwinning activity on Teachers' Professional Development in Project-Based Teaching Process. *Eğitim Kuram Ve Uygulama Araştırmaları Dergisi*, 6(3), 373–392.
<https://dergipark.org.tr/en/download/article-file/1480604>
- Borg, S. (2006). *Teacher cognition and language education*. London, England: Continuum.
- Borg, S. (2018). Evaluating the impact of professional development. *RELC Journal*, 49(2), 195–216. <https://doi.org/10.1177/0033688218784371>
- Borg, S., & Sanchez, H. S. (2020). Cognition and good language teachers. In Cambridge University Press eBooks (pp. 16–27). <https://doi.org/10.1017/9781108774390.005>
- Borko, H., Jacobs, J., & Koellner, K. (2010). Contemporary approaches to teacher professional development. In Elsevier eBooks (pp. 548–556). <https://doi.org/10.1016/b978-0-08-044894-7.00654-0>
- Bozdağ, Ç. (2018). Intercultural learning in schools through telecollaboration? A critical case study of eTwinning between Turkey and Germany. *International Communication Gazette*, 80(7), 677–694. <https://doi.org/10.1177/1748048518802221>

- Bradburn, N. M., Sudman, S., & Wansink, B. (2004). Asking questions: The Definitive Guide to Questionnaire Design -- For Market Research, Political Polls, and Social and Health Questionnaires. John Wiley & Sons.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Byram, M., Gribkova, B., & Starkey, H. (2002). Developing the Intercultural Dimension in Language Teaching: a practical introduction for teachers. <http://lrc.cornell.edu/rs/roms/507sp/ExtraReadings/Section0/uploads/File1235272745204/InterculturalDimensionByram.pdf>
- Cachia, R., Ferrari, A., Ala-Mutka, K., & Punie, Y. (2010). Creative learning and innovative teaching. Final report on the study on creativity and innovation in education in the EU member states.
- Cachia, R., & Punie, Y. (2012). Symposium 4: Teacher Collaboration in the Context of Networked Learning. *Proceedings of the International Conference on Networked Learning*, 8, 429–436. <https://doi.org/10.54337/nlc.v8.9138>
- Camilleri, R. (2016). Global education and intercultural awareness in eTwinning. *Cogent Education*, 3(1), 1210489. <https://doi.org/10.1080/2331186x.2016.1210489>
- Cassi, C. V. (2014). ETwinning Project: A way to motivate young EFL learners. Unpublished MA Thesis). Universitat De Vic.
- Chase, M., Macfadyen, L. P., Reeder, K., & Roche, J. (2002). Intercultural challenges in networked learning: Hard technologies meet soft skills.
- Chen, H. (2016). Intercultural communication in online social networking discourse. *Language and Intercultural Communication*, 17(2), 166–189. <https://doi.org/10.1080/14708477.2016.1211137>

- Chen, J., & Chang, C. (2006). Testing the “Whole Teacher” Approach to Professional Development: A study of enhancing early childhood teachers’ technology proficiency. *Early Childhood Research & Practice*, 8(1). <http://files.eric.ed.gov/fulltext/EJ1084920.pdf>
- Clemson University Office of Institutional Effectiveness and Assessment. (n.d.). Focus group consent form suggested format. Retrieved August 4, 2024, from <https://www.clemson.edu/assessment/documents/Consent%20to%20Participate%20in%20Focus%20Group.pdf>
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). Thousand Oaks, CA: Sage.
- Çınar, E., Avaroğlu, N., Tunç, G., & Taşkaya, S. (2024). An analysis of the impact of ETwinning projects on teachers and students in terms of teachers’ views. *Eğitim Ve Yeni Yaklaşımlar Dergisi*, 7(1), 1–9. <https://doi.org/10.52974/jena.1358931>
- Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education*, 40(3), 291–309. <https://doi.org/10.1080/02619768.2017.1315399>
- Day, C., & Gu, Q. (2007). Variations in the conditions for teachers’ professional learning and development: sustaining commitment and effectiveness over a career. *Oxford Review of Education*, 33(4), 423–443. <https://doi.org/10.1080/03054980701450746>
- Day, C., Stobart, G., Sammons, P., Kington, A., Gu, Q., Smees, R., & Mujtaba, T. (2006). Variations in teachers’ work, lives and effectiveness [Dataset]. In *PsycEXTRA Dataset*. <https://doi.org/10.1037/e615332007-001>

- Demir, N., & Kayaoğlu, M. N. (2021). Multi-dimensional foreign language education: the case of an eTwinning project in Turkey. *Computer Assisted Language Learning*, 35(9), 2201–2238. <https://doi.org/10.1080/09588221.2020.1871027>
- Desimone, L. M. (2009). Improving Impact Studies of Teachers' Professional Development: Toward better conceptualizations and Measures. *Educational Researcher*, 38(3), 181–199. <https://doi.org/10.3102/0013189x08331140>
- Dolmaci, M., & Sezgin, H. (2021). Culture and the Common European Framework for Languages: A Comparative Corpus analysis of 2001, 2018 and 2020 texts. *European Journal of Educational Sciences*, 8(4), 15–27. <https://doi.org/10.19044/ejes.v8no4a15>
- Dooly, M. (2017). Telecollaboration. *The handbook of technology and second language teaching and learning*, 169-183.
- Dörnyei, Z., & Taguchi, T. (2009). *Questionnaires in Second Language Research: Construction, Administration, and Processing* (2nd ed.). Routledge. <https://doi.org/10.4324/9780203864739>
- Duncan-Howell, J. (2009). Teachers making connections: Online communities as a source of professional learning. *British Journal of Educational Technology*, 41(2), 324–340. <https://doi.org/10.1111/j.1467-8535.2009.00953.x>
- East, Kristy Ann, "A Study of Professional Learning Communities: Characteristics of Implementation and Perceived Effectiveness in Improvement Schools in West Virginia" (2015). *Theses, Dissertations and Capstones*. 937. <https://mds.marshall.edu/etd/937>
- Emir, G., & Yangın-Ekşi, G. (2024). The role of telecollaboration in English language teacher education: a systematic review. *Smart Learning Environments*, 11(1). <https://doi.org/10.1186/s40561-024-00290-0>

- England, N. (2017). Developing an interpretation of collective beliefs in language teacher cognition research. *TESOL Quarterly*, 51(1), 229-238.
<http://www.jstor.org/stable/44986987>
- Ermeling, B. A. (2009). Tracing the effects of teacher inquiry on classroom practice. *Teaching and Teacher Education*, 26(3), 377–388. <https://doi.org/10.1016/j.tate.2009.02.019>
- European Commission, European Education and Culture Executive Agency, Mouratoglou, N., Gilleran, A., Scimeca, , Embedding eTwinning in national educational policies from practice to policy – Monitoring report 2021, Publications Office of the European Union, 2021, <https://data.europa.eu/doi/10.2797/245581>
- Fabbro, F., Ranieri, M., & Imbimbo, E. (2023). Theoretical framing and analysis of the eTwinning impact on Italian teachers’ professional development. In *The impact of eTwinning on continuing professional development of teachers in Italy Studies, highlights and prospects of the Italian community* (pp. 83-110). Carocci.
- Fearn, L. J. (2022). EFL teachers’ perceptions of online community projects in secondary school education. *The JALT CALL Journal*, 18(3), 360–381.
<https://doi.org/10.29140/jaltcall.v18n3.600>
- Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal*, 38(4), 915–945.
<https://doi.org/10.3102/00028312038004915>
- Gajek, E. (2017). Curriculum integration in distance learning at primary and secondary educational levels on the example of eTwinning projects. *Education Sciences*, 8(1), 1.
<https://doi.org/10.3390/educsci8010001>

- Germain-rutherford, A., & Kerr, B. (2008). An Inclusive Approach To Online Learning Environments: Models And Resources. *Turkish Online Journal of Distance Education*, 9(2), 64-85.
- Gibbs, G. R. (2007). Analyzing qualitative data. In U. Flick (Ed.), *The Sage qualitative research kit*. Thousand Oaks, CA: Sage.
- Gillham, B. (2008). *Developing a questionnaire*. A&C Black.
- Girvan, C., Conneely, C., & Tangney, B. (2016). Extending experiential learning in teacher professional development. *Teaching and Teacher Education*, 58, 129–139.
<https://doi.org/10.1016/j.tate.2016.04.009>
- Golombek, P. R. (2015). Redrawing the boundaries of language teacher cognition: language teacher educators' emotion, cognition, and activity. *Modern Language Journal*, 99(3), 470–484. <https://doi.org/10.1111/modl.12236>
- Gökbulut, B. (2022). A study to determine the eTwinning-Related views of the teachers in the eTwinning network countries, and their digital literacy levels. *Journal of Teacher Education and Lifelong Learning*, 5(1), 18–37. <https://doi.org/10.51535/tell.1201383>
- Guilherme, M. (2000), 'Intercultural competence', in M. Byram (ed.), *Routledge Encyclopedia of Language Teaching and Learning*. London: Routledge, pp. 297-300.
- Guskey, Thomas R., "Does It Make a Difference? Evaluating Professional Development" (2002). Educational, School, and Counseling Psychology Faculty Publications. 7.
https://uknowledge.uky.edu/edp_facpub/7
- Hamamcıoğlu, T. (2023). Tertiary level Turkish EFL teachers' perceptions and experiences about self – initiated professional development. [Unpublished manuscript]. thesis). The Department of English Language Teaching, Bilkent University.

- Han, S. (2023). Intercultural Professional Development Through Telecollaboration: Unfolding Language Teacher Learning. The Pennsylvania State University. Retrieved from <https://www.proquest.com/dissertations-theses/intercultural-professional-development-through/docview/2866081224/se-2>
- Hajisoteriou, C., Karousiou, C., & Angelides, P. (2018). INTERACT: building a virtual community of practice to enhance teachers' intercultural professional development. *Educational Media International*, 55(1), 15–33. <https://doi.org/10.1080/09523987.2018.1439709>
- Hoekstra, A., & Korthagen, F. (2011). Teacher learning in a context of Educational change: Informal learning versus Systematically Supported learning. *Journal of Teacher Education*, 62(1), 76–92. <https://doi.org/10.1177/0022487110382917>
- Holmes, B. (2013). School Teachers' Continuous Professional Development in an Online Learning Community: lessons from a case study of an eTwinning Learning Event. *European Journal of Education*, 48(1), 97–112. <https://doi.org/10.1111/ejed.12015>
- Holmes, B., & Sime, J. (2012). Online learning communities for teachers' continuous professional development. *Proceedings of the International Conference on Networked Learning*, 8, 128–135. <https://doi.org/10.54337/nlc.v8.9081>
- Huertas-Abril, C., & Muszyńska, B. (2022). The role of eTwinning tools in social and curriculum integration using multimodal communication. *Teaching English with technology*, (22 (3-4)).
- Hunzicker, J. (2010). Effective professional development for teachers: a checklist. *Professional Development in Education*, 37(2), 177–179. <https://doi.org/10.1080/19415257.2010.523955>

- Indire. eTwinning's Impact on In-service Teachers' Professional Development in Italy. Report. Firenze: INDIRE, 2021.
- İyidoğan, F. (2011). Personal factors affecting experienced English teachers' decisions whether or not to engage in professional development activities.
<http://repository.bilkent.edu.tr/handle/11693/15188>
- Kaminski, S. A. (2011). Implementing a Professional Learning Community: a case study. In ProQuest LLC eBooks.
<https://repository.library.northeastern.edu/files/neu:1073/fulltext.pdf>
- Kampylis, P., Bocconi, S., & Punie, Y. (2012, August). Fostering innovative pedagogical practices through online networks: the case of eTwinning. In Proceedings of the SQM/INSPIRE 2012 conference, Tampere, Finland (pp. 21-23).
- Kennedy, M. M. (2016). How does professional development improve teaching? Review of Educational Research, 86(4), 945–980. <https://doi.org/10.3102/0034654315626800>
- Kiger, M. E., & Varpio, L. (2020). Thematic analysis of qualitative data: AMEE Guide No. 131. Medical Teacher, 42(8), 846–854. <https://doi.org/10.1080/0142159x.2020.1755030>
- Kizilaslan, Ş., & Başkan, P. E. (2023). İngilizce Öğretmenlerinin eTwinning Deneyimleri ve Mesleki Gelişimlerine Etkisi. Eğitim Bilimleri Dergisi.
<https://doi.org/10.15285/maruaebd.1232410>
- Komorita, S. S. (1963). Attitude Content, Intensity, and the Neutral Point on a Likert Scale. The Journal of Social Psychology, 61(2), 327–334.
<https://doi.org/10.1080/00224545.1963.9919489>
- Kostas, A., & Ioannidou, D. (2023). Learning communities and teacher professional Development: the case of eTwinning seminars. Creative Education, 14(13), 2800–2819.
<https://doi.org/10.4236/ce.2023.1413177>

- Kowalczyk-Walędziak, M., & Underwood, J. M. (2021). International communities of practice: what makes them successful vehicles for teachers' professional development? *Educational Studies*, 49(6), 973–990. <https://doi.org/10.1080/03055698.2021.1927673>
- Kramsch, C. (1993). Language study as Border Study: Experiencing difference. *European Journal of Education*, 28(3), 349. <https://doi.org/10.2307/1503764>
- Kramsch, C., & Thorne, S. L. (2002). Foreign language learning as global communicative practice. In *Globalization and language teaching* (pp. 83-100). Routledge.
- Krueger, R.A. and Casey, M.A. (2015). Focus Group Interviewing. In *Handbook of Practical Program Evaluation* (eds K.E. Newcomer, H.P. Hatry and J.S. Wholey). <https://doi.org/10.1002/9781119171386.ch20>
- Lai, K. W., Pratt, K., Anderson, M., & Stigter, J. (2006). Literature review and synthesis: Online communities of practice. *Education*.
- Lave, J., & Wenger, E. (1991). Situated learning. <https://doi.org/10.1017/cbo9780511815355>
- Lawrence, G. (2013). A working model for intercultural learning and engagement in collaborative online language learning environments. *Intercultural Education*, 24(4), 303–314. <https://doi.org/10.1080/14675986.2013.809247>
- Lee, L. (2009). Promoting intercultural exchanges with blogs and podcasting: A study of Spanish–American telecollaboration. *Computer Assisted Language Learning*, 22(5), 425–443.
- Lee, Y., Driscoll, M. P., & Nelson, D. W. (2004). The Past, present, and Future of Research in Distance Education: Results of a content analysis. *American Journal of Distance Education*, 18(4), 225–241. https://doi.org/10.1207/s15389286ajde1804_4

- Lewis, S., & Decuypere, M. (2023). 'Out of time': Constructing teacher professionalism as a perpetual project on the eTwinning digital platform. *Tertium Comparationis*, 29(1), 22–47. <https://doi.org/10.31244/tc.2023.01.02>
- Liaw, M. (2006). E-learning and the development of intercultural competence. DOAJ (DOAJ: Directory of Open Access Journals).
<https://doaj.org/article/96cd75537b364797a5c954fc1d9d67f2>
- Lieberman, A. (2000). Networks as learning communities. *Journal of Teacher Education*, 51(3), 221–227. <https://doi.org/10.1177/0022487100051003010>
- Lieberman, A., & Mace, D. P. (2009). Making practice Public: Teacher Learning in the 21st Century. *Journal of Teacher Education*, 61(1–2), 77–88.
<https://doi.org/10.1177/0022487109347319>
- Mak, A. S., Daly, A., & Barker, M. C. (2014). Fostering cultural inclusiveness and learning in culturally mixed business classes. *SpringerPlus*, 3(1). <https://doi.org/10.1186/2193-1801-3-242>
- MEB Mevzuat Bankası (Regulations Bank of Ministry of National Education). (2022). Aday öğretmenlik ve öğretmenlik kariyer basamakları yönetmeliği [The candidate teacher and teaching career steps regulation]. Retrieved September 2024 from
<https://www.mevzuat.gov.tr>
- Merchie, E., Tuytens, M., Devos, G., & Vanderlinde, R. (2016). Evaluating teachers' professional development initiatives: towards an extended evaluative framework. *Research Papers in Education*, 33(2), 143–168.
<https://doi.org/10.1080/02671522.2016.1271003>

- Milković, I., Luzzini, M., De Diezmas, E. L. N. M., & Soldo, L. (2023). eTwinning Projects in the Humanities: Personal and professional benefits for future teachers. In Adaya Press eBooks (pp. 68–79). <https://doi.org/10.58909/ad23301488>
- Nawab, A., Bissaker, K., & Datto, A. K. (2021). Contemporary trends in professional development of teachers: importance of recognising the context. *International Journal of Educational Management*, 35(6), 1176–1190. <https://doi.org/10.1108/ijem-10-2020-0476>
- Nazari, M., & Xodabande, I. (2020). L2 teachers' mobile-related beliefs and practices: contributions of a professional development initiative. *Computer Assisted Language Learning*, 35(7), 1354–1383. <https://doi.org/10.1080/09588221.2020.1799825>
- O'Dowd, R. (2013). The competences of the telecollaborative teacher. *Language Learning Journal*, 43(2), 194–207. <https://doi.org/10.1080/09571736.2013.853374>
- OECD (2009). *Creating Effective Teaching and Learning Environments: First Results from TALIS*. Paris: Organization for Economic Co-Operation and Development. <http://dx.doi.org/10.1787/9789264068780-en>
- Onalan, O., & Gursoy, E. (2020). İngilizce Öğretmenlerinin Hizmet İçi Eğitimlere Yönelik Görüşleri ve İhtiyaçları: Türkiye Bağlamında Bir Durum Çalışması. *Bartın University Journal of Faculty of Education*, 9(2), 373–387. <https://doi.org/10.14686/buefad.713100>
- Oppenheim, A. N. (1992). *Questionnaire Design, Interviewing and Attitude Measurement*, New Ed. Pinter Pub Ltd. <https://psycnet.apa.org/record/1992-98252-000>
- Øverland, L. J. A. (2015). A DOOR OUT - eTWINNING IN FOREIGN LANGUAGE LEARNING - A qualitative study on students' reflections on potentials for language learning when participating in an eTwinning project, in lower secondary school. <https://brage.bibsys.no/xmlui/handle/11250/2440506>

- Özbilgin, A., Erkmen, B., & Karaman, C. (2016). English Language Teacher Professional Development: When Institutional Frameworks Fall Short. *İnönü Üniversitesi Eğitim Fakültesi Dergisi*, 17(1). <https://doi.org/10.17679/iuefd.17152899>
- Özışık, B. Z., Yeşilyurt, S., & DemiRöz, H. (2019). Developing intercultural awareness in language teaching: Insights from EFL lecturers in Turkey. *Journal of Language and Linguistic Studies*, 15(4), 1436–1458. <https://doi.org/10.17263/jlls.668546>
- Palermo, C., & Thomson, M. M. (2018). Large-scale assessment as professional development: teachers' motivations, ability beliefs, and values. *Teacher Development*, 23(2), 192–212. <https://doi.org/10.1080/13664530.2018.1536612>
- Palincsar, A. S., Magnusson, S. J., Marano, N., Ford, D., & Brown, N. (1998). Designing a community of practice. *Teaching and Teacher Education*, 14(1), 5–19. [https://doi.org/10.1016/s0742-051x\(97\)00057-7](https://doi.org/10.1016/s0742-051x(97)00057-7)
- Parker, C., Scott, S. and Geddes, A. (2019) *Snowball Sampling*. SAGE Research Methods Foundations.
- Persico, D., Passarelli, M., Manganello, F., Barujel, A. G., & Groba, A. R. (2020). The participatory dimension of teachers' self-regulated professional learning about learning design: beliefs versus behaviours. *Professional Development in Education*, 49(2), 340–352. <https://doi.org/10.1080/19415257.2020.1787193>
- Pfingsthorn, J., Kramer, C., Czura, A., & Stefl, M. (2019). The formation of professional identity and motivation to engage in telecollaboration in foreign language education. *European Journal of Language Policy*, 11(2), 143–165. <https://doi.org/10.3828/ejlp.2019.10>
- Phakiti, A., & Paltridge, B. (2015). *Approaches and methods in applied linguistics research*. *Research methods in applied Linguistics: A Practical Resource*. Bloomsbury Publishing.

- Postholm, M. B. (2012). Teachers' professional development: a theoretical review. *Educational Research*, 54(4), 405–429. <https://doi.org/10.1080/00131881.2012.734725>
- Rabiee, F. (2004). Focus-group interview and data analysis. *Proceedings of the Nutrition Society*, 63(4), 655–660. <https://doi.org/10.1079/pns2004399>
- Ramamurthy, K. (2015). Teacher professional development for English language education in India. Rutgers The State University of New Jersey, School of Graduate Studies.
- Riding, P. (2001). Online teacher communities and continuing professional development. *Teacher Development*, 5(3), 283–296.
- Sancar, R., Atal, D., & Deryakulu, D. (2021). A new framework for teachers' professional development. *Teaching and Teacher Education*, 101, 103305. <https://doi.org/10.1016/j.tate.2021.103305>
- Scimeca, S., Dumitru, P., Durando, M., Gilleran, A., Joyce, A., & Vuorikari, R. (2009). European Schoolnet: enabling school networking. *European Journal of Education*, 44(4), 475–492. <https://doi.org/10.1111/j.1465-3435.2009.01407.x>
- Shulman, L. S., & Shulman, J. H. (2004). How and what teachers learn: a shifting perspective. *Journal of Curriculum Studies*, 36(2), 257–271. <https://doi.org/10.1080/0022027032000148298>
- Smith, K. (2017). *Teachers as self-directed learners: Active Positioning through Professional Learning*. Springer.
- Turner, C. J. (2015). Impact of Professional Learning Community Design on Teacher Instruction. Graduate Theses and Dissertations Retrieved from <https://scholarworks.uark.edu/etd/10>

- Trust, T., Krutka, D. G., & Carpenter, J. P. (2016). "Together we are better": Professional learning networks for teachers. *Computers & Education*, 102, 15–34.
<https://doi.org/10.1016/j.compedu.2016.06.007>
- Üzüm, B., Akayoglu, S., & Yazan, B. (2020). Using telecollaboration to promote intercultural competence in teacher training classrooms in Turkey and the USA. *ReCALL*, 32(2), 162–177. doi:10.1017/S0958344019000235
- Villegas-Reimers, E. (2003). Teacher professional development: An International Review of the Literature.
- Vincent-Lancrin, S., Urgel, J., Kar, S., & Jacotin, G. (2019). Measuring Innovation in Education 2019. In *Educational research and innovation*. <https://doi.org/10.1787/9789264311671-en>
- Vygotsky, L. S., & Cole, M. (1978). *Mind in society: Development of Higher Psychological Processes*. Harvard University Press.
- Webster, S. (2018). Understanding lack of development in early career teachers' practical knowledge of teaching speaking skills. *System*, 80, 154–164.
<https://doi.org/10.1016/j.system.2018.10.010>
- Wenger, E. (1998). *Communities of Practice: Learning, meaning, and identity*.
- Wenger, E., McDermott, R. A., & Snyder, W. (2002). *Cultivating communities of practice: A Guide to Managing Knowledge*. Harvard Business Press.
- Wilson, M. S. (2001). Cultural considerations in online instruction and learning. *Distance Education*, 22(1), 52–64. <https://doi.org/10.1080/0158791010220104>
- Wiseman, R. L. (2002). Intercultural communication competence. In Gudykunst, W. B., & Mody, B. (2002). *Handbook of International and Intercultural Communication*. SAGE.

- Wu, S. (2021). Unpacking themes of integrating telecollaboration in language teacher education: a systematic review of 36 studies from 2009 to 2019. *Computer Assisted Language Learning*, 36(7), 1265–1287. <https://doi.org/10.1080/09588221.2021.1976800>
- Wyatt, M., & Ager, E. O. (2016). Teachers' cognitions regarding continuing professional development. *ELT Journal*, ccw059. <https://doi.org/10.1093/elt/ccw059>
- Xue, S., Hu, X., Chi, X., & Zhang, J. (2019). Building an online community of practice through WeChat for teacher professional learning. *Professional Development in Education*, 47(4), 613–637. <https://doi.org/10.1080/19415257.2019.1647273>
- Yang, Y. (2013). Exploring students' language awareness through intercultural communication in computer-supported collaborative learning. *Educational Technology & Society*, 16(2), 325–342. http://www.ifets.info/journals/16_2/26.pdf
- Yeh, H., & Heng, L. (2022). Creating a virtual “third space” in a telecollaborative project to promote English as a Foreign Language (EFL) learners' language proficiency and intercultural awareness. *Interactive Learning Environments*, 31(10), 6667–6677. <https://doi.org/10.1080/10494820.2022.2043384>
- Yin, R. K. (2006). Mixed methods research: Are the methods genuinely integrated or merely parallel?. *Research in the Schools*, 13(1).
- Zhang, X., Admiraal, W., & Saab, N. (2021). Teachers' motivation to participate in continuous professional development: relationship with factors at the personal and school level. *Journal of Education for Teaching International Research and Pedagogy*, 47(5), 714–731. <https://doi.org/10.1080/02607476.2021.1942804>

APPENDIX 1

Ethics Approval

Karar: 113734

KARAR(ISSUE NUMBER): 25.04.2024/



T.C.
ANKARA SOSYAL BİLİMLER ÜNİVERSİTESİ REKTÖRLÜĞÜ
SOSYAL VE BEŞERİ BİLİMLER ARAŞTIRMALARI
VE
BİLİMSEL YAYIN ETİK KURULU
(SOCIAL SCIENCES UNIVERSITY OF ANKARA
INSTITUTIONAL ETHICS COMMITTEE OF SOCIAL SCIENCES AND
HUMANITIES RESEARCH AND PUBLICATION)

ETİK ONAY BELGESİ
(CERTIFICATE OF ETHICS APPROVAL)

Araştırma Yöntemi (Research Method)	Anket Çalışması, Mülakat
Araştırmanın Adı (Study Title)	Profesyonel Gelişim İçin Alternatif Bir Yol: eTwinning Projelerinin Öğretmenlerin Profesyonel Gelişimine Olan Etkileri
Sorumlu Araştırmacının Adı Soyadı (Principal Researcher Name Surname)	MERVE KASNAK HANCIOĞLU
Karar (Committee Decision)	UYGUN

e-imzalıdır
Prof. Dr. M. Hakan TÜRKCAPAR
Başkan (Chair)

e-imzalıdır
Prof. Dr. Ejder OKUMUŞ
Üye(Member)

e-imzalıdır
Prof. Dr. Sutay YAVUZ
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Prof. Dr. Mehmet Emin BİLGE
Üye(Member)

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Prof. Dr. Aslı AKAY
Üye(Member)

e-imzalıdır
Prof. Dr. Mustafa ÇEVİK
Üye(Member)

e-imzalıdır
Prof. Dr. İsmail ÇAKIR
Üye(Member)

Belge Takip Adresi : <https://turkiye.gov.tr/ebd?eK=5451&eD=BSD48ZDYZZ&eS=113734>

Bu belge 5070 sayılı Elektronik İmza Kanununun 5. Maddesi gereğince güvenli elektronik imza ile imzalanmıştır.

APPENDIX 2

The Online Questionnaire and the Consent Form

The Title of the Questionnaire: The Effects of Participating in eTwinning Projects on Teachers' Professional Development

Consent

Thank you for participating in this study. Before you proceed, please read the following information carefully.

This online questionnaire is part of a research study titled [Exploring the Effects of eTwinning Projects on Teachers' Professional Development], conducted within the Master of Arts in English Language Education Program at the Institute for Graduate Studies in Social Sciences University of Ankara.

Your participation is voluntary, and your responses will be used for research purposes only. Your responses will be confidential and anonymous. By participating, you contribute valuable information to this research. Completing the questionnaire is estimated to take approximately [ten minutes]. By proceeding with this questionnaire, you confirm that you:

- Have read and understood the information provided.
- Agree to participate voluntarily in this study.
- Understand that you can withdraw from the study at any time without consequence.
- Consent to the use of your anonymized responses for research purposes.

Thank you very much for your contribution.

Merve KASNAK HANCIOĞLU

P.S: If you have any questions before, during, or after completing the questionnaire, please contact Merve Kasnak Hancioğlu

SECTION 1. The first section of the questionnaire is designed to determine how participating in eTwinning projects has affected your professional development. The section involves four subsections: cognitive aspect, affective aspect, actional aspect and social aspect. Please choose the number that best represents your level of agreement with each statement. Please give your answers sincerely.

a. Cognitive Aspect					
Engaging in eTwinning Projects ...	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. has expanded my understanding of teaching theories and methodologies.	1	2	3	4	5
2. has deepened my knowledge of information and communication technologies (ICT).	1	2	3	4	5
3. has encouraged me to explore new research and literature in education.	1	2	3	4	5
4. has provided opportunities to learn innovative teaching strategies and techniques.	1	2	3	4	5
5. has created environments to exchange ideas, experiences, and resources with national and international colleagues.	1	2	3	4	5
6. has facilitated my understanding of student learning.	1	2	3	4	5
7. has triggered curiosity and a desire for continuous development.	1	2	3	4	5
8. has expanded my cross-cultural knowledge and understanding.	1	2	3	4	5

b. Affective Aspect					
Participating in eTwinning projects....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. has provided peer support and encouragement for my professional growth.	1	2	3	4	5
2. has enabled me to receive positive feedback for making a positive impact on my students' education.	1	2	3	4	5
3. has helped me to grow my empathy and understanding through interacting with educators from diverse backgrounds.	1	2	3	4	5
4. has reignited my passion for teaching and learning by engaging in innovative activities.	1	2	3	4	5
5. has been motivating because of the praise and recognition I've received from my colleagues.	1	2	3	4	5
6. has created a sense of purpose and excitement in my teaching practice.	1	2	3	4	5
7. has inspired me to move beyond my comfort zone and embrace new opportunities for professional growth.	1	2	3	4	5

c. Actional Aspect

After participating in eTwinning projects,	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I have utilized the knowledge and skills obtained from eTwinning projects in my teaching practices.	1	2	3	4	5
2. I have observed noticeable improvements in student engagement and learning outcomes in my teaching practices.	1	2	3	4	5
3. I have integrated more ICT tools into my teaching compared to before.	1	2	3	4	5
4. I have increased confidence in exchanging teaching practices with educators from colleagues across Europe.	1	2	3	4	5
5. I have become curious about innovative teaching methods and pedagogical approaches.	1	2	3	4	5
6. I have designed my lesson planning with diverse perspectives and cultures.	1	2	3	4	5

d. Social Aspect

After participating in eTwinning projects,**Strongly
Disagree****Disagree****Neutral****Agree****Strongly
Agree**

1. I have felt more connected to the global teaching community.**1****2****3****4****5**

2. I have observed a sense of community among colleagues through engaging in discussions and activities.**1****2****3****4****5**

3. I have expanded my professional network through collaboration with international colleagues.**1****2****3****4****5**

4. I have developed my cross-cultural communication skills.**1****2****3****4****5**

5. I have participated in collaborative teaching activities within my school community.**1****2****3****4****5**

SECTION 2. The second section of the questionnaire is designed to explore in what ways educators utilize the eTwinning platform to advance their professional development. Please give your answers sincerely.

Please choose the number that best represents your level of agreement with each statement.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I engage with the groups on the eTwinning platform to enhance my professional development.	1	2	3	4	5
2. I utilize the resources available on the eTwinning website for my teaching or professional activities.	1	2	3	4	5
3. I leverage the eTwinning platform to access and share innovative teaching strategies and methods with my colleagues.	1	2	3	4	5
4. I utilize the eTwinning platform to grow professional networks and interact with educators worldwide for collaborative opportunities.	1	2	3	4	5
5. I regularly participate in eTwinning webinars and online training sessions to improve my pedagogical knowledge and skills.	1	2	3	4	5

SECTION 3. Please type your answers.

Do you believe that participating in eTwinning projects enhances your professional development?

- Yes. Please explain.

.....

- No. Please explain.

.....

**SECTION 4. Thank you for completing the previous sections of the questionnaire.
Please mark the correct options.**

1. Country:

2. Gender:

- a) Male
- b) Female

3. Age:

- a) Under 25
- b) 25-34
- c) 35-44
- d) 45+

4. Educational Level:

- a) Bachelor's degree
- b) Master's degree
- c) Doctoral Degree

5. Years of Experience:

- a) 1-5 years
- b) 6-10 years
- c) 11-15
- d) 15+

6. Teaching Levels:

- a) Primary school
- b) Secondary school
- c) High school

7. Number of eTwinning Projects Participated In:

- a) 1-5
- b) 6-10
- c) 10+

8. Number of eTwinning Projects Organised and Run:

- a) 0
- b) 1-5
- c) 6+

5) Participation in Interview

Thank you for your great contributions to our study. If you are willing to participate in a follow-up interview, please provide your:

- Full Name: [.....]
- Email Address: [.....]

Note: Providing your name and email address for the interview is entirely voluntary and will be kept confidential.

APPENDIX 3

Informed Consent Form

Focus Group Interview Consent Form

Purpose

You have been invited to participate in a focus group as a part of the study [Exploring the Effects of eTwinning Projects on Teachers' Professional Development], conducted within the Master of Arts in English Language Education Program at the Institute for Graduate Studies in Social Sciences University of Ankara] under the direction of [Merve KASNAK HANCIOĞLU]. The purpose of this focus group is to answer following questions [What are the perceptions of teachers who participate in eTwinning projects in terms of professional development? In what ways do educators utilize the eTwinning platform to advance their professional development?]. The information learned in this focus group will be used to [gain deeper understanding and support the data received from the online survey].

Procedure

As part of this study, you will be placed in a group of 6 – 12 individuals. A moderator will ask you several questions while facilitating the discussion. As approved through Social Sciences University of Ankara Ethical Committee, this focus group will be audio-recorded and a note-taker will be present. However, your responses will remain confidential, and no names will be included in the final report.

Please remember that there are no right or wrong answers to focus group questions. Out of respect, please refrain from interrupting others. However, feel free to be honest even when your responses counter those of other group members.

Confidentiality

Should you choose to participate, you will be asked to respect the privacy of other focus group members by not disclosing any content discussed during the study. Researchers within [Merve KASNAK HANCIOĞLU] will analyze the data, but—as stated above—your responses will remain confidential, and no names will be included in any reports.

By attending the interview, you confirm that you:

- Have read and understood the information provided.
- Agree to participate voluntarily in this study.
- Understand that you can withdraw from the study at any time without consequence.
- Consent to the use of your anonymized responses for research purposes.

Thank you very much for your contribution.

Merve KASNAK HANCIOĞLU

P.S: If you have any questions before, during, or after completing the questionnaire, please contact

APPENDIX 4

The Focus Group Interview Questions

1. What were your expectations for participating in an eTwinning project?
2. What did you expect from your project partners?
3. To what extent your former expectations were met when completing the project?
4. Do you think participating in an eTwinning project has contributed to your teaching practice in any way? If yes, can you please elaborate on examples?
5. What are the challenges of participating in an e-Twinning Project?
6. Do you utilize the eTwinning platform to advance your professional development? If yes, please elaborate on examples?
7. What are your future plans regarding new eTwinning Projects?
8. Anything else that you would like to say about your e-Twinning experience regarding professional development?