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**INVESTIGATION OF SELF-EFFICACY BELIEFS AND PERCEPTIONS OF
ENGLISH LANGUAGE TEACHERS TOWARDS FACE-TO-FACE AND
ONLINE EDUCATION**

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CERTIFICATE OF COMMITTEE APPROVAL

We certify that this thesis under the title of “**Investigation of Self-Efficacy Beliefs and Perceptions of English Language Teachers towards Face-to-Face and Online Education**” prepared by “**Sıdıka KARAGÖZ**” is satisfactory for the award of the degree of **MASTER OF ARTS** in the Department of **Department of Foreign Languages Education**.

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COMMITMENT

I declare that this thesis has been written by taking ethical rules into consideration and by giving all the references cited from the field by referring them in the thesis.

Sıdıka KARAGÖZ



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ABSTRACT

INVESTIGATION OF SELF-EFFICACY BELIEFS AND PERCEPTIONS OF ENGLISH LANGUAGE TEACHERS TOWARDS FACE-TO-FACE AND ONLINE EDUCATION

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Previous research has demonstrated that teachers' self-efficacy beliefs substantially impact their performance and instructional practices. Therefore, with the recent advancements in online education, the present study aims to investigate the self-efficacy beliefs and perceptions of English language teachers in Türkiye towards face-to-face and online education modes. The study adopted an explanatory mixed-method research design, in which qualitative analysis followed quantitative analysis. For the quantitative phase, 220 English language teachers from both public and private institutions completed the scales, Teacher's Self-efficacy Scale (TEBS-Self) (Dellinger et al., 2008) and Michigan Nurse Educators' Sense of Competence for Online Teaching Scale (MNESEOTS) (Robinia, 2008), and 10 English language teachers participated in semi-structured interviews which were piloted and developed by the researchers. The findings of the quantitative analysis indicated that teachers had higher self-efficacy beliefs in face-to-face education than in online education. Teachers' positive perceptions of face-to-face education contributed to their higher self-efficacy in this mode. In accordance with the variables, such as school type, gender, and experience, it was found that experienced teachers performed higher self-efficacy beliefs than novice teachers. On the other hand, gender and school type had no significant effect on teachers' self-efficacy beliefs. Moreover, the findings of semi-structured interviews highlighted the importance of direct interaction and immediate feedback in face-to-face education while appreciating the adaptability and accessibility of online education. This study provides valuable insights

into the self-efficacy beliefs of English language teachers in two modes of education and might help policymakers and practitioners design professional development and support mechanisms for teachers in both instructional settings. Future research should investigate the relationship between teacher self-efficacy beliefs and student outcomes, examine the competencies required for effective teaching in each mode, and question the challenges and opportunities of online education more comprehensively.

Keywords: self-efficacy beliefs, teacher perceptions, face-to-face education, online education, teacher training



ÖZET

İNGİLİZCE ÖĞRETMENLERİNİN YÜZ YÜZE VE ÇEVİRİM İÇİ EĞİTİME YÖNELİK ÖZ YETERLİK İNANÇLARININ VE ALGILARININ İNCELENMESİ

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Araştırmalar, öğretmenlerin öz-yeterlik inançlarının performanslarını ve öğretim uygulamalarını önemli ölçüde etkilediğini göstermiştir. Bu nedenle, çevrim içi eğitimdeki son gelişmeler göz önüne alınarak, bu çalışma Türkiye'deki İngilizce öğretmenlerinin yüz yüze ve çevrim içi eğitim modlarına yönelik öz-yeterlik inançlarını ve algılarını araştırmayı amaçlamaktadır. Çalışma, nitel analizin nicel analizi izlediği, açıklayıcı karma yöntemli bir araştırma tasarımı benimsenmiştir. Çalışmanın nicel aşaması hem kamu hem de özel kurumlardan 220 İngilizce öğretmeni ile Öğretmen Öz-yeterlik Ölçeği (TEBS-Self) (Dellinger vd., 2008) ve Michigan Hemşire Eğitimcilerinin Çevrim içi Eğitim için Yetkinlik Algısı Ölçeği (MNESEOTS) (Robinia, 2008) kullanılarak gerçekleştirilmiştir. 11 İngilizce öğretmeni, pilot uygulaması yapılan ve araştırmacılar tarafından geliştirilen yarı yapılandırılmış görüşmelere katılmıştır. Nicel analizin bulguları, öğretmenlerin yüz yüze eğitimde çevrim içi eğitime göre daha yüksek öz-yeterlik inançlarına sahip olduğunu göstermiştir. Öğretmenlerin yüz yüze eğitime ilişkin olumlu algıları, bu modda daha yüksek öz-yeterliklerine katkıda bulunmuştur. Okul türü, cinsiyet, kıdem gibi değişkenlere göre, deneyimli öğretmenlerin her iki modda da öz-yeterlik inançlarının özel mesleğin ilk beş yılındaki öğretmenlere göre daha güçlü olduğu bulunmuştur. Öte yandan, cinsiyet ve okul türünün öğretmenlerin öz-yeterlik inançları üzerinde anlamlı bir etkisi olmamıştır. Ayrıca, yarı yapılandırılmış görüşmelerin bulguları, çevrim içi eğitimin uyarlanabilirliğini ve erişilebilirliğini takdir ederken, yüz

yüze eğitimde doğrudan etkileşimin ve anında geri bildirimin önemini vurgulamıştır. Bu çalışma, Türk İngilizce öğretmenlerinin iki eğitim modundaki öz-yeterlik inançlarına ilişkin değerli bilgiler sunmaktadır. Politika yapıcılarının ve uygulayıcılarının her iki eğitim ortamında da öğretmenler için profesyonel gelişim ve destek mekanizmaları tasarlamasına yardımcı olabilir. Gelecekteki araştırmalar, öğretmen öz-yeterlik inançları ile öğrenci sonuçları arasındaki ilişkiyi araştırmalı, her modda etkili öğretim için gerekli yeterlilikleri incelemeli ve çevrim içi eğitimin zorluklarını ve fırsatlarını daha kapsamlı bir şekilde sorgulamalıdır.

Anahtar Kelimeler: öz-yeterlik inançları, öğretmen algısı, yüz yüze eğitim, çevrim içi eğitim, öğretmen eğitimi



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LIST OF ABBREVIATIONS

ARPAN	Advanced Research Projects Agency Network
EBA	Eğitim Bilişim Ağı (Education Informatics Network)
EFL	English as a Foreign Language
ELT	English Language Teaching
ERT	Emergency Remote Teaching
F2F	Face-to-Face Education
ICT	Information and Communication Technology
L2	Second Language
MNESEOTS	Michigan Nurse Educators' Sense of Competence for Online Teaching Scale
MoNE	Ministry of National Education
SLA	Second Language Acquisition
TALIS	Teaching and Learning International Survey
TEBS-Self	Teacher's Self-efficacy Scale

OPERATIONAL DEFINITIONS

Self-efficacy: Self-efficacy can be defined as the perception that one can carry out activities and produce the desired results. It relates to teachers' perceptions of their abilities to motivate students, control classroom environments, provide instruction, evaluate student learning, and adjust to various educational circumstances.

Face-to-Face Education: In a physical context, face-to-face education entails direct contact between teachers and pupils. It enables using several educational techniques and resources, as well as real-time communication and prompt feedback.

Online Education: Online education uses digital technology and the internet to teach remotely. It includes internet platforms, access to digital materials, and virtual interactions. Although flexibility is a benefit of online learning, there are issues with student involvement and the utilization of efficient teaching methods.

Teacher Training: The process of obtaining the information, abilities, and competencies required for efficient instruction is called teacher training. This program combines formal education with professional development and hands-on training to educate teachers for in-person and online instruction.

Educational Context: The setting and conditions in which teaching and learning occur are called the educational context. It considers elements, including the classroom's physical environment, student characteristics, curricular needs, and social influences.

Teacher Performance: In the classroom, observable behaviors, actions, and results are called teacher performance. Effective instructional planning, fostering a happy learning environment, behavior management, tracking student progress, giving feedback, and encouraging academic performance are all part of it. Teachers' self-efficacy beliefs, teaching tactics, subject-matter expertise, and capacity for change impact their performance.

1. INTRODUCTION

The study aims to determine the self-efficacy beliefs and perceptions of English language teachers who work in state and private schools in Türkiye concerning face-to-face and online education and explores the relationship between self-efficacy levels and different variables, such as gender, school type, graduated department, seniority, and regions in which teachers work. Therefore, this chapter presents the problem statement, the purpose, significance, assumptions, and limitations of the study.

1.1. Statement of the Problem

Today learning a second language is a need, and learning English helps communicate with people in a globalized world. It has been the language of many different disciplines such as science, commerce and politics. (McKay, 2003). As English is vital, skilled English teachers are needed (Moeller & Catalano, 2015). Teacher credentials are crucial to language learning. Teachers are lifelong learners who can relate to today's learners who are considered digital natives, since the students have the knowledge, skills, and competencies which are required in the digital era. English language teachers are expected to have linguistic abilities, assessment, and evaluation, classroom administration, teaching techniques, interactions with education stakeholders, student engagement, success, and involvement. Having an awareness of teacher self-efficacy beliefs and perceptions might increase these elements. For example, after identifying a teaching weakness and raising an awareness of his/her self-efficacy, a teacher may work to improve himself/herself. Hence, self-efficacy must be studied to improve teaching. A great deal of educational research has demonstrated that teachers' attitudes, beliefs, and perceptions affect their knowledge and teaching effectiveness (Bandura, 1997; Caner & Aydin, 2021; Lazarides et al., 2021; Pajares, 1992; Tschannen-Moran et al., 1998).

Self-efficacy could be described as a person's self-confidence, not skill (Tschannen-Moran et al., 2001). They define self-efficacy as an individual's expectations of success in new conditions. Self-efficacy is the belief that one can accomplish a challenging activity. (Palmer, 2006). Self-efficacy is a person's academic performance (Buric & Kim, 2020). By utilizing all the different definitions and explanations above, self-efficacy

relates to an individual's confidence in their capacity to execute a task or attain a desired end, particularly in the face of complex or novel conditions. It is not based strictly on their competence but on their success assumptions. It is a quality that aids people in different facets of their life, including academic and professional endeavors. Cultivating self-efficacy requires cultivating self-awareness and realism, which may lead to improved decision-making. Teachers must develop their teaching processes and their student's academic success.

The relationship between teachers' self-efficacy beliefs and their instructional practices and student achievement has been found as positive (Rashidi & Moghadam, 2014). This finding emphasizes the significance of investigating the self-efficacy ideas of English teachers regarding face-to-face and online education. Teachers' self-efficacy beliefs impact their choice of teaching strategies, level of persistence, and willingness to experiment with novel instructional methods (Tschannen-Moran et al., 2001). Understanding the self-efficacy beliefs of English teachers can therefore shed light on their teaching practices and the efficacy of those practices. In addition to linguistic proficiency and teaching methods, teachers' beliefs and attitudes toward online education can also influence their teaching practices. Educators with favorable attitudes toward online education have been indicated to be more inclined to implement technology in their classrooms (Richardson, 2001).

Self-efficacy is an essential component of individual excellence. It enables individuals to excel in a various endeavor by nurturing self-awareness and the capacity to make well-informed decisions based on an accurate evaluation of their abilities. Today, these kinds of abilities should be developed not only face-to-face education, but also online education. Since the COVID-19 pandemic emphasized the significance of online education and accelerated the adoption of online teaching techniques, understanding the self-efficacy beliefs of English teachers regarding online education can shed light on their readiness and propensity to adapt to online teaching methods.

1.2. Purpose of the Study

This study aims to determine the self-efficacy beliefs and perceptions of English language teachers towards face-to-face and online education and understand how teachers'

perceptions towards face-to-face and online education relate to their self-efficacy beliefs. Teacher self-efficacy belief means that a teacher believes that he/she can affect their students' success. Thus, it is of great importance to study as student success is one of the aims of education. However, face-to-face, and online education differ in many aspects, and it is crucial to examine them separately. Online education is a relatively a new term, so teacher self-efficacy in online education is less examined in the literature (Flores & Gago, 2020; Işık & Bahat, 2020; König et al., 2020). Therefore, this thesis aims to fill this gap and strengthen teacher self-efficacy by determining the reasons for face-to-face and online education by examining the demographic features of the teachers.

In this study, answers to the following questions will be sought:

1. What are the self-efficacy beliefs of English language teachers in Türkiye about face-to-face and online education?
 - 1.1. What are the self-efficacy beliefs of English language teachers about face-to-face and online education in terms of gender?
 - 1.2. What are the self-efficacy beliefs of English language teachers about face-to-face and online education in terms of school type?
 - 1.3. What are the self-efficacy beliefs of English language teachers about face-to-face and online education in terms of teaching experience?
2. Is there any relationship between English language teachers' self-efficacy beliefs about face-to-face and online education?
3. How do English language teachers in Türkiye perceive the advantages and disadvantages of face-to-face and online education, and how do their perceptions relate to their self-efficacy beliefs regarding each mode of education?

1.3. Significance of the Study

The last pandemic has had a prominent effect on education systems around the globe, and many institutions have been forced to transition from traditional face-to-face instruction to online education to ensure the continuity of learning. Therefore, it is crucial to comprehend the self-efficacy beliefs of English teachers regarding every type of education to ensure that they are adequately prepared to deliver effective face-to-face and distance learning programs (Caner & Aydin, 2021).

Alongside traditional schooling, distance education has been expanding for a long time, and the demand for online education is developing significantly. Research and Markets (2021) estimate that the global market for online education is projected to increase by \$47.46 billion between 2020 and 2027, highlighting the importance of understanding the self-efficacy beliefs of English teachers regarding online education. The effect of this unexpected change on students, teachers, and educational institutions is still being investigated. Online education uses various communication technologies to connect professors and students in different locations (Moore & Kearsley, 2011). An institution's distance education methods use distance communication technology to connect students, teachers, and resources (Simonson et al., 2019). The benefits of this online education include adaptability, convenience, and accessibility. However, it has several disadvantages, including technical difficulties, an absence of face-to-face interaction, and diminished motivation (Koruyan et al., 2022). Understanding the self-efficacy beliefs of English teachers regarding online education can assist institutions in identifying the areas in which teachers require support and training to ensure that online education is compelling and engaging for students (Hodges et al., 2020).

This study defines "online education" as education delivered using synchronous and asynchronous virtual meeting platforms like Eba, Zoom, Google Meet, and Skype, which including video conferencing, chat, and screen sharing. Online learning is asynchronous or synchronous. Asynchronous online training does not need instructor-student interaction. Online courses may be taken anytime (Kim, 2004). Synchronous online education involves geographically distant students and teachers communicating in real time utilizing digital audio, video, and text-based chat tools (Martinez, 2004). Throughout the epidemic education in the internet, which colleges employ, has influenced kindergarten, primary, and secondary schools. Online education, allows students and teachers to communicate remotely. This circumstance has several pros and cons. Teachers, who administer education, have sought to tackle several internet issues. Based on online education teachers' experiences, this study aims to predict which educational tool teachers feel they are more proficient. There is a limited number of research on teachers' self-efficacy in face-to-face and online education. However, these studies (Gencer & Cakiroglu, 2007; Navnyko, 2015; Yildirim, 2021) focus on either face-to-face education or online education. There are hardly any studies that investigated both media of education with the same sample. This research is expected to fill this gap in the

literature and help better understand English language teachers' self-efficacy beliefs in both modes of education.

Moreover, the results of this study might assist schools and other educational institutions improve effective training programs for English teachers to change their beliefs of self-efficacy regarding online education. Last, by understanding the self-efficacy beliefs of English teachers regarding online education, institutions can ensure that English teachers are adequately prepared to deliver practical online courses and that students receive a high-quality education regardless of the mode of delivery. This study can help institutions develop effective strategies to address the factors influencing teachers' beliefs of their self-efficacy concerning online education (Hodges, 2008; Meiselwitz & Sadera, 2008).

1.4. Assumptions

The study is based on several fundamental presumptions. First, it implies that the teachers who participated in the study answered all the questions with sincerity. The study's validity and dependability are contingent on the teachers' providing genuine and accurate data. Second, the study assumes that the data collection instruments used in the research, such as scales and interviews, were designed to capture the data required to achieve the research objectives effectively. It is presumed that these tools were constructed and utilized appropriately to generate accurate and exhaustive data for analysis. Another assumption is that English language teachers in Türkiye possess the knowledge and expertise necessary to provide precise and reliable responses to the study's questions. It is assumed that these teachers have a firm grasp of their self-efficacy beliefs in face-to-face and online teaching contexts. In addition, the study implies that English language teachers' self-efficacy beliefs regarding face-to-face and online education are significant indicators of instructional effectiveness and student outcomes. It is assumed that these beliefs directly impact the behavior and performance of teachers and, in turn, on students' learning outcomes. Furthermore, the study assumes that the compiled information from English language teachers in Türkiye represents the English language teacher population in the country. The assumption is that the experiences and perspectives of the teachers surveyed represent those of other English language teachers working in comparable educational environments. The study also assumes that the online education experiences of English language teachers in Türkiye are comparable to those of teachers and students

in other contexts. This supposition suggests that the findings extend beyond the context of Türkiye and may apply to online and face to face education general. Lastly, the study assumes that the scale questions and measures employed accurately capture and evaluate self-efficacy beliefs with both face-to-face and online learning. It is presumed that these measures provide a valid and dependable representation of the investigated construct.

1.5. Limitations

Despite the research's contributions, it is necessary to acknowledge several limitations that may affect the generalizability and validity of the study's findings. First, the quantitative phase of the study included a sample size of 220 EFL teachers who work in public and private primary, secondary and high schools from various regions of Türkiye. Similarly, only one EFL teacher for the pilot and ten EFL teachers for the main study were included in the qualitative phase. The small sample size may limit the study's ability to be completely representative of all English teachers in Türkiye, thereby limiting the generalizability of the results. Second, the research was conducted during the academic year 2022-2023, roughly a year after the Covid-19 pandemic. The timing of the study may have affected the teachers' reflections and perspectives, as they were likely affected by the pandemic's unique circumstances and difficulties. These contextual factors may limit the findings' applicability to other periods or non-pandemic contexts. The study's focus on English teachers in Türkiye may limit its applicability to other nations or educational settings. Cultural, linguistic, and systemic differences between educational systems may influence teachers' self-efficacy beliefs and experiences, necessitating caution when extrapolating the results to other populations. The data acquired for this study relied on English teachers' self-reported responses. Such self-report data are susceptible to social desirability and other response biases, which may compromise the results' validity and precision. When interpreting these findings, researchers should be careful and consider the potential impact of such biases. In addition, the study's sample size, especially during the qualitative phase, may only adequately represent some of the population of English teachers in Türkiye. A larger sample size would increase the study's statistical power and improve the results' generalizability. Lastly, it is essential to note that the primary focus of this study is to investigate the self-efficacy beliefs of English teachers about face-to-face and online education. Other variables, such as student motivation, participation, and learning outcomes, which can also influence the efficacy

of online education, were not explicitly investigated in this study. Future research should consider examining these additional factors to provide a more comprehensive understanding of the dynamics of online education.



2. CONCEPTUAL FRAMEWORK AND RELATED STUDIES

2.1. Social Cognitive Theory

The concept of self-efficacy is based on Bandura's Social Cognitive Theory (Bandura, 1977). Rotter first developed Social Cognitive Theory in the mid-1950s, but Bandura made significant contributions to the theory later. The essential elements of social learning theory come from behavioral approaches (Luszczynska & Schwarzer, 2015). The foundation of social learning theory is the notion that learning is a social process that happens via interaction, observation, and imitation. Operant conditioning and modelling and imitation are the two learning mechanisms that underpin social learning. According to the theory behind operant conditioning, the likelihood of repeating behaviours that are reinforced or rewarded will rise. Imitating and modelling behaviours that one has acquired via observation are referred to as modelling and imitation. Bandura asserts that the model's status influences learning by highlighting the many dynamics in the modelling process. He then discusses the input-output model, linear models, and dynamic models at this point (Bandura, 2001).

A theory called social cognitive theory was proposed to describe how people learn. Bandura's theory was broadened to incorporate cognitive processes, such as thinking, memory, language, and anticipating and assessing the consequences of behavior, when imitation and observation were proved to be insufficient to describe human learning (Nabavi, 2012). Social learning theory's main tenet is that people actively participate in their own growth (Bayraktar, 2007).

According to the Social Learning Theory, humans actively engage in brain processes that are impacted by external events as opposed to merely observing them. People employ systems connected to affect, motor, and the brain to accomplish the objectives that give their life purpose and direction (Bandura, 1999). Mutual determination (individual, environmental, and behavioural variables), symbolization (language and facial expressions), indirect learning (modelling, imitation, and identification), foresight activity (cognitive intuition of results), self-regulation capacities (purpose, specification, and self-direction), and self-efficacy are the fundamental tenets of social cognitive theory

(Bandura & Kupers, 1964). Among these principles, self-efficacy is crucial in teaching and learning activities. Thus, it is required to be investigated profoundly.

The work of Robert Sears, a pediatrician interested in the relationship between social behavioral precursors and learning initially influenced Bandura. In his early research, he tried to examine the effect of modeling behavior on human thought and action. However, he conducted a study with Richard Walters, his first doctoral student, that works further on this subject. This study (Bobo Doll experiment), which examined the relationship between social learning and aggression, led to a research program on observational learning (Grusec, 1994).

Another important psychologist who shaped Bandura's thinking is Kenneth Spence. Spence argued that, as in the positive sciences, the science of psychology can also use methods of experiment and theory construction. He believed that psychology could produce reliable scientific knowledge, and he conceptualized a behavioral science. It was argued that it is necessary to examine behavior instead of directly examining the experience (Bandura, 2006). The scholar who had the most significant influence on Bandura was Burrhus Frederic Skinner, the representative of the Behaviorist approach. Bandura found Skinner's thoughts inadequate and developed them, emphasizing the importance of reward and punishment reinforces with the concepts of classical and operant conditioning.

In the late 1980s, Bandura's research tended to offer a more comprehensive overview of human cognition, as it tended to be more holistic. As a result of Bandura's expansion of the Social Learning theory, the theory began to be referred to as the Social Cognitive theory (Grusec, 1994). With respect to history of teacher self-efficacy, it is necessary to go back to the 1950s, when the Humanism movement was an exciting subject (Baloğlu & Karadağ, 2008). Gilbert and Levinson (1957) put forward the basis of self-efficacy (as cited in Karadağ et al., 2018) by considering the approach of the mental hospital staff to the patients and the principles of the humanitarian movement through supervision and humanitarianism. The Humanism movement was the source of the Locus of Control Theory, which Rotter put forward in 1966. In the Locus of Control Theory, it has been suggested that people act through two loci of control: external control and internal control.

All aspects are shaped to align with the cognitive world of the individual; however, it is crucial to recognize that learning occurs within a social context rather than solely relying on direct acquisition by the individual. In other words, learning happens in the background because of social interactions in which people actively engage, collaborate, and share knowledge. When a person is socialized in his or her early years of life, the structuring and sharing of knowledge in that person's schooling begins. When it comes to education and training, it is crucial that other students and other information sources be incorporated into the interaction between students and their surroundings in addition to professors (Bandura, 1986; Vygotsky & Cole, 1978). Therefore, the Social Cognitive Theory is a significant theory that assesses the psychosocial elements that influence an individual's actions and that provide ways for behavior modification. This idea contends that humans acquire habits and cognitive traits far more effectively and can sustain these practices. When learning from others, two important considerations are how much each person knows and how accurate their information is.

All in all, Bandura's Social Cognitive Theory aids in our understanding of the efficiency of education by facilitating social connections since it explains how the flow of knowledge between people will also alter their sentiments (Bandura, 1977).

2.1.1. Self-efficacy

The concept of general self-efficacy has taken on a very comprehensive and complex structure with the studies carried out in the historical development process. The overall self-efficacy beliefs of an individual exert an influence and are reciprocally influenced by specific self-efficacy beliefs on various domains or tasks. The belief in self-efficacy, which is a primary factor in the success or failure of people throughout their lives, has been researched and gained its importance today. "Beliefs in one's capacity to plan and carry out the actions necessary to produce given attainments are referred to as self-efficacy" (Whyte et al., 1997, p. 416). That means self-efficacy is the level of confidence a person needs to get into action to perform specific tasks. Perceived self-efficacy is related to people's belief that they can control their motivation, thought processes, emotional circumstances, and behavior patterns (Bandura & Wessels, 1994). Individuals' beliefs about themselves have far-reaching implications, influencing various aspects, including decision-making, exertion of effort, perseverance in the face of adversity, and

coping with self-defeating thought patterns. If teachers feel a shared sense of self-efficacy, they need help to find what to do and follow which path to manage facing difficulties, and they could lack the ability to perform their exact skills (Bandura, 1994).

According to the environment, the circumstances, the type and level of the task, and the degree of topic mastery, the level of self-efficacy varies (Bandura, 1997; Zimmerman, 2000). However, failures that happen after a person has formed a strong sense of self-efficacy have little impact on that person's self-efficacy (Schunk, 1989). Considering the data that they gather from their surroundings, people formulate theories about their level of self-efficacy. Over time, these notions solidify and influence how the person views his or her success or failure (Paris & Newman, 1990). Although self-efficacy research has been done for a long time, there are still some issues with the scales that have been produced because the differences between the ideas cannot be explained. Self-concept and self-efficacy are closely related concepts with comparable scale items, yet they also differ significantly.

According to Bandura (1997), the self-concept of an individual is how they view themselves, based on their personal experiences and the opinions of others. The person describes themselves in the self (McCombs, 2001). Individual success perceptions, social comparisons, and experiences with others influence both ideas. While academic self-efficacy displays time and precondition changes, the academic self has a more stable structure (Bandura, 1997). However, Bong and Skaalvik (2003) claim that both notions positively affect performance, motivation, and emotions.

People are inclined to perform the tasks they feel competent and confident performing and to avoid the tasks they do not feel confident performing, because when they have doubts about achieving the desired result, they are reluctant to act on the process, and since they adjust the amount of effort they will put forth while performing a task in accordance with the expected outcome of their actions. These factors all contribute to the influence of self-efficacy beliefs on people's decisions (Bandura, 1986).

Unlike self-confidence, self-efficacy is tied to a specific action or area. Cassidy and Eachus (2002) claim that someone with good self-efficacy in one area may have moderate self-efficacy in another. Instead of the actual level of efficacy, the perception of self-

efficacy is related to beliefs about the amount of efficacy. Bandura (1995) indicates that human conduct is based more on what people think is true than on what is true. This distinction is crucial since many people think their proficiency level is either more or lower than it is. In other words, people frequently underestimate, overestimate, or misunderstand their own abilities. "People who see their capacity as inadequate are unable to use their skills to their full potential, whereas those who perceive their capacity as slightly higher than they perform better on average" (Tschannen et al., 1998, p. 208).

According to Luszczynska et al. (2005, p. 439) "General self-efficacy is coping with stressful situations or challenging demands." According to Alqurashi (2006), views on self-efficacy influence how people may reason, what motivates them, and how they act and behave. Individuals with high and low self-efficacy perceptions share the following traits: High self-efficacy people view difficult jobs as learning opportunities rather than dangers to avoid. They have a strong sense of responsibility under challenging tasks and increase their efforts in the face of difficulties, and they could quickly regain their self-efficacy if they fail. They attribute their failures to little effort and a lack of knowledge and skills. They are also self-confident in frightening situations, take control of situations, and stand firm against stress and hopelessness. The expectation of success affects the emotions of these individuals positively; however, individuals with low self-efficacy perception tend to avoid complex tasks that they deem potentially dangerous. They are generally reluctant to reach the goal and weaken a stronger sense of responsibility. When they face a difficult situation, they hardly focus on how they could succeed. Instead, they focus on negative results. When confronted with challenges, individuals experience a deceleration in their work pace and tend to abandon their efforts readily. They need help in regaining their self-efficacy when they are unsuccessful. They attribute making enough effort to their inability and quickly lose faith. It is easy to become a victim of stress and despair. They avoid retrying a task if they fail on the first try. Bad previous experiences prevent them from making new attempts (Bandura, 1997).

Bandura categorized the variables that influence self-efficacy beliefs and divided these variables into four categories: "Personal experiences, inferences made from other people's experiences, social acceptance, and a person's physical and emotional state" (Bandura, 1986, p. 399; 1995, p. 3). Personal experiences are the most potent of these variables. People engage in a variety of behaviors, assess the outcomes of those actions, utilize the

assessment findings to establish a belief about their ability to carry out similar actions, and then behave according to that belief (Bandura, 1986; Bandura, 1995; Pajares & Schunk, 2002). In contrast to repeated failures, successful experiences lead to an increase in self-efficacy belief.

Strong self-efficacy beliefs emerge over time because of successful experiences, are very resistant, and are not easily impacted by sporadic failures (Bandura, 1986). People also form self-efficacy beliefs by observing others, or by drawing on the experiences of others, in addition to assessing the effects of their actions. When building self-efficacy beliefs, knowledge gleaned from the experiences of others is less powerful than knowledge gleaned from one's own experiences. Particularly, if they have no or little experience in the relevant sector, people are more impacted by the experiences of others. When a person draws parallels between themselves and the person whose experience they are seeing or using as a model, the effectiveness of those experiences is increased. While the success of a role model whose age, education level, and/or gender are comparable to themselves inspires a sense of "I can/can succeed," the role model's failure may make the individual question their ability to do so (Bandura, 1986, p. 399; 1995, p. 3; Pajares & Schunk, 2002).

People with high degrees of self-efficacy improve their assumptions and strategies when learning complicated activities rather than looking for excuses such as a lack of enthusiasm in the subject. Even under time constraints, employees with high self-efficacy are better able to obtain essential information, choose wisely, and behave responsibly. The aforementioned abilities are extremely valuable in occupations that require activities like efficiently handling irate clients in contact centre settings or quickly resolving complex technological issues. Low self-efficacy, on the other hand, might result in inconsistent analytical thinking that degrades the effectiveness of problem solving, a crucial skill in a society that is becoming more and more knowledge based (Heslin & Klehe, 2006). People with a strong sense of self-worth are better equipped to handle critical feedback when it comes in an evolving workplace where enhancement of performance and ongoing learning are essential. In instances when their self-efficacy is poor, people typically view a negative outcome as supporting the ineptitude they feel within themselves. This belief can create a vicious cycle in which ambiguous results are seen as proof of one's perceived incapability, further reducing one's self-efficacy, effort, and performance. Low self-

efficacy also makes people more likely to blame problems on external factors like the environment or other people. Denying any blame for subpar performance reduces the likelihood that someone will learn how to perform more successfully in the future (Heslin & Klehe, *ibid.*).

On the other hand, extremely high levels of self-efficacy may result in disproportionate risk-taking, arrogance, and dysfunctional perseverance, but in most situations, the failures that follow quickly reset people's self-efficacy to a more realistic level (Heslin & Klehe, *ibid.*). Cultivating strong self-efficacy is beneficial due to its wealth of advantages. The most effective way to accomplish this is by the simultaneous and methodical application of verbal persuasion, role modeling, and active self-mastery.

2.1.2. Teacher self-efficacy

Self-efficacy generally includes several self-efficacy types, such as professional self-efficacy and teacher self-efficacy. Professional self-efficacy is an individual's intrinsic belief about a profession that s/he could perform (Schyns & Von Collani, 2002). Teacher self-efficacy, on the other hand, is generally the belief of teachers that they can influence even difficult and unmotivated students in learning (Guskey & Passaro, 1994). When the concept of teacher self-efficacy perception, one of the most critical studies on the concept of self-efficacy, is viewed from the perspective of teachers, the knowledge, skills, and attitudes required to fulfill the responsibilities and duties of the teaching profession must be emphasized (Bandura, 1997; Demirtaş et al., 2011). Teacher self-efficacy is defined as teachers' beliefs about the competencies necessary to be successful in the learning-teaching process and change students' behavior. Teacher self-efficacy is similarly described as teachers' belief in exhibiting the necessary behaviors to fulfill student performances (Ramey-Gassert & Shroyer, 1992). Self-efficacy significantly affects academic environments, because once a teacher believes that s/he could change the negative factors into positive, learning activities become more successful. However, if a person has low self-efficacy, s/he feels hopelessness and disheartenment, so less possible to struggle to improve circumstances (Bandura, 2001). Self-efficacy is an excellent influencer of online learning environments (Pumptow & Brahm, 2021).

The case of constituting a proper instructional environment is highly regarded with the educational skills of teachers. Teachers with a high sense of self-efficacy could include even the most challenging students in the education process, regardless of the improper influences of home and community on a student (Bandura, 1997). However, if a teacher has a low sense of self-efficacy, s/he thinks it is impossible to engage disadvantaged students in structural processes by eliminating the detrimental effects of home and community. Therefore, it is essential to understand how teachers perceive and evaluate themselves regarding their knowledge, abilities, and experiences for effective teaching and overcoming the educational problems they encounter in all their professional lives (Niemi, 2002). “The situation of teachers and pre-service teachers finding themselves professionally competent has become a subject that is being emphasized more and more” (Özdemir, 2008, p. 278). Teachers' attitudes towards education, school, teaching, and students reflect their beliefs (Pajares, 1992). Self-efficacy is seen to affect both teachers and students. Since student success is central to most educational research, self-efficacy in face-to-face and online education settings needs to be investigated profoundly (Honicke & Broadbent, 2016). These learning contexts differ in many aspects, so it would be prominent to examine them separately (Bowers & Kumar, 2015).

Teacher effectiveness could be described as the combined impacts of a diverse range of in-classroom instructor behaviors on students' learning, according to Seidel and Shavelson (2007). This definition is often operationalized as assessments of the observed teaching performance or assessed student accomplishment. Even after being exposed to successive competent instructors, it may be difficult for a kid to recover from a run of poor teachers since teacher influences on student learning are additive and cumulative across grade levels (Wright et al., 1997). Understanding the variables influencing teacher effectiveness is a global research and policy issue with the potential to impact teacher selection procedures, improve pre-service and in-service teacher preparation, and promote the professional development of teachers.

Bandura (1997) posited that “self-efficacy scales should encompass individuals' perceptions regarding their capabilities to attain desired performance levels” (p. 45). Teachers generally have limited time to work by themselves. Teachers generally work in teams to share responsibility for a bigger group of pupils in most schools. The actual teaching is divided among teachers teaching a larger group and individual teachers

teaching smaller groups. Teacher teams perform a considerable amount of planning and organization. Therefore, the team's effectiveness may affect the individual teachers' self-efficacy (Skaalvik & Skaalvik, 2007).

Early career teachers' perceptions of "effectiveness" may have been influenced by their attitudes towards children and their level of control (Hoy & Spero, 2005). Among liberal arts majors, efficacy views were associated with a preference for humanistic principles over custodial authority. A control-oriented approach, a pessimistic view of student motivation, and a reliance on strict classroom rules, extrinsic rewards, and penalties to encourage students to study were all related with low teacher effectiveness among undergraduates. Competence ideas influence behaviour after a student teacher is in the classroom. The supervising instructor awarded potential interns higher personal teaching efficacy ratings for lesson-presenting behaviour, classroom management, and questioning behaviour throughout the practicum evaluation. Evidence suggests that personal and general teaching efficacy are impacted differently by coursework and practise, with general efficacy appearing to rise during college coursework and fall during student teaching (Woolfolk, 1998). Since effectiveness beliefs seem to be rather hard to alter once they are developed, there has been a lot of interest in the development of these beliefs among student teachers.

The impact of teachers' self-efficacy beliefs on students' academic progress and success has been thoroughly explored in several research (Muijs & Reynolds, 2001; Tournaki & Podell, 2005). The level of self-efficacy a teacher feels can have a variety of effects on a student's academic achievement. Teachers who have high self-efficacy beliefs are, for instance, more likely than those who have low self-efficacy beliefs to use creative teaching techniques in the classroom, appropriate teaching techniques that promote student autonomy, accept responsibility for students with special learning needs, handle tense situations in the classroom, and employ classroom management techniques. Gülistan et al. (2017) explored 480 students and 96 math professors. Male and female teachers' mean self-efficacy ratings were similar. Math achievement by gender was also examined. Male and female academic attainment was comparable. The research found a strong link between mathematics teachers' self-efficacy and student accomplishment.

2.1.3. Factors influencing self-efficacy in education

Self-efficacy in education is influenced by a multitude of factors that shape an individual's belief in their ability to succeed academically. These factors encompass both internal and external elements. Internal factors include individual's previous achievements, cognitive abilities, and personal attributes. External factors encompass social support, feedback from teachers and peers and the perceived difficulty of tasks. (Ramey-Gassert et al., 1996). A teacher's personal teaching experience is crucial in determining their level of self-efficacy. Educators get a sense of competence that can increase their self-efficacy when they deal with a variety of classroom obstacles and triumphs over time. Additionally, the kind and level of teacher preparation programs have an influence on self-efficacy. Since they are more confident in their ability to teach, teachers who receive thorough training, continued professional development, and access to good instructional practices typically have higher self-efficacy (Bandura, 1997). Teacher self-efficacy is highly impacted by the school environment. Higher levels of teacher self-efficacy are influenced by supportive school leadership, teamwork among coworkers, and a favorable workplace culture. Teachers are more likely to have confidence in their capacity to have a good impact on students' learning when they feel appreciated, have opportunities for collaborative decision-making, and receive helpful feedback. In contrast, a hostile or excessively demanding work environment might lower self-efficacy because instructors may feel overworked or underappreciated for their efforts (Hoy & Spero, 2005). The involvement of students and classroom management elements have an impact on teachers' sense of efficacy as well. Self-efficacy is more likely to be greater in teachers who can control classroom behavior and provide a stimulating learning environment. Teachers' confidence in their teaching abilities is bolstered when they believe their instructional tactics promote student engagement and accomplishment. On the other hand, difficulties in engaging students and managing the classroom can erode teacher self-efficacy because teachers may start to question their own performance (Woolfolk & Hoy, 1990).

2.2. Education

Education is defined as "directly or indirectly helping children and young people acquire the necessary knowledge, skills, and understandings to take their place in social life, and

develop their personalities, inside or outside the school, and upbringing" by the Turkish Language Association (TDK, 2021, parag. 1). Education, which originated with the emergence of humans, has been a development that has persisted throughout history and in every society, including the acquisition of more sophisticated knowledge and skills for everyday living. Humans must adapt to situations that are already present or continually changing to continue existing in the world. In this perspective, learning in many cases is necessary for humans to adapt to their surroundings or satisfy their requirements in various environments. Learning impacts a person's life, emotional abilities, actions, and behaviors at every stage of life. It also alters and develops these traits within the context of the education he has received.

With technological advancement, education is currently undergoing tremendous revolutions and adjustments. Technological advancements impact people's social, economic, and cultural lives and can even alter them. To reach the broad masses of people with education and training activities where the flow of information is provided, the development and progress of the country, and to increase the equipped workforce, governments are changing and innovating their educational programs in accordance with the needs of the age because of the advancement of technology. All nations are believed to share the objective of renewing and developing educational initiatives alongside scientific advances. These advancements and initiatives led to the creation of distance education.

2.2.1. Face-to-face education

Teacher-student relationships develop through daily classroom interactions for a long time (Pennings et al., 2014). This instructional modality necessitates physical co-presence, with teachers and students convening at designated times and locations. Through this mode of education, students engage in hands-on learning experiences, benefit from close instructor supervision, and participate in peer interactions, promoting socialization, skill development, and attitude formation.

Traditional classroom-based education involves pedagogical interactions conducted by proficient educators within formal educational institutions, following a predetermined schedule. To realize face-to-face education, students and educators should be in the same

environment at the same time. Students at specific age levels and the same level should be in one-to-one communication with the educators, and there should be a predetermined program. Considering these necessities, this medium of education could be convenient, especially in practical training and considerably effective teaching technique in the emergence and development of skills and attitudes. In addition, the fact that trainers and students are in the same place working together facilitates socialization opportunities and academic success (Gillies, 2003).

In face-to-face instruction, the teacher frequently serves as a moderator or class leader. The teacher leads the class while demonstrating effective methods for problem-solving, skill acquisition, and practice. Additionally, students can receive individualized feedback or help for various tasks to enhance their learning. Since each student receives personalized feedback, the teacher may differentiate instructions to better fit into the educational process and consider each student's unique requirements. In-person education is beneficial for interpersonal interactions as well. The interaction gap between students and professors is significantly narrowed when these two parties interact in person. Affective learning results from improved teacher-student communication, which enables both parties to build trusting relationships.

Classroom-based education presents a multitude of merits and drawbacks. Notably, one of its prominent strengths is facilitating experiential learning, where students actively engage in hands-on experiences to acquire knowledge and skills (Johnson & Johnson, 2019). Since teachers could find the opportunity to monitor students more closely, the individual differences of the students could be noticed efficiently by the teacher. This situation is of great importance for the future life of the students. Face-to-face education contributes to peer learning, especially in a group activity. Students learn from each other, and they could feel more comfortable asking questions rather than asking their teacher. It also enables educational games and entertaining student group activities (Radović & Marković, 2010).

2.2.2 Online education

“Distance education is divided into three types of service delivery: traditional distance education, computer-based education, and online education” (White, 2010, p. 997). In

traditional distant learning, audio is used together with videotapes or written materials. Computer-based training is based on CD-ROM or hard drive content. Online education is defined as computer-based education that is provided through the World Wide Web (WWW). In addition to e-learning, remote learning, and online learning, online education is the most popular word for all ICT-based learning (Al-Ansi et al., 2021). Distance learning is delivered online, commonly referred to as "web-based education" and "internet-based education," using the internet. Academic institutions may now give wider access over bigger distances and complete traditional classroom instruction through the use of the internet. Additionally, the internet enables academics to combine several teaching techniques to enhance their instruction. Asynchronous and synchronous learning are both options in online education. Online courses that are asynchronous don't need students to talk to their instructors in real time. An online course can be started and finished at any time by the student. When geographically separated students and teachers converse in real time while using communication technologies like digital audio, digital video, and text-based messaging software, this is known as synchronous online education. (Oliver et al., 2007).

Online education broadly refers to web-based or internet-based distant education. It allows students and teachers to work at their pace from anywhere. Online education encompasses both synchronous and asynchronous learning. With synchronous learning, students and teachers use audio input, video, and communication software to connect in real-time. Online education provides better access to education across longer distances and offers a variety of instructional techniques to improve the learning experience. In contrast to traditional education, online learning has a different structure and its own opportunity and challenges (Anderson, 2004). Internet technologies are an educational process focused on connecting students, teachers, and educational equipment while presenting the idea of online learning.

Online education is planned to teach in different places from everyday learning. As a result, it requires special course design techniques, special education techniques, unique communication methods with electronic and other technologies, and exceptional organizational and administrative arrangements (Moore & Kearsley, 1996). Students and teachers are independent of one another during the educational process. There are changes in the information provided, such as study tips and instructional resources. The way that

the media is used varies as well. These technologies are mostly utilized in online learning systems to facilitate interaction between teachers and students.

There are advantages and disadvantages of online education. According to Yuhanna et. al. (2020), the benefits of online learning include:

- Giving people access to a variety of educational options,
- Reducing opportunity gaps, lowering costs while raising educational standards, giving students freedom, and creating a stimulating learning environment, fostering independent learning, and giving each person responsibility for their own education, and eliminating the need to be in a specific indoor location at a specific time.

Its drawbacks include:

- the difficulty in facilitating face-to-face educational interactions,
- the restriction of socialization, and the assistance of pupils who are not accustomed to studying independently and without assistance.
- lack of implementing group works.
- lack of participation in classroom discussions.

It can be summarized as the inability to give enough service, the taking away of working students' rest time, the failure to gain from practical lessons, the failure to perform behaviors related to skills and attitudes effectively, and the dependence on communication and transportation facilities. Despite its drawbacks, Kurt et al. (2022) indicate that teachers try to find different solutions to motivate students in online learning environments. This could help improve the quality of online learning in the Turkish educational system.

There are several barriers against online learning. Accessibility, affordability, adaptability, training methodology, lifelong learning, and politics are a few reasons for using online instruction. Online education is widely accessible and even goes out to remote and rural areas. Due to the lower expenditures of travel, hotel, and institution-based instruction, it is a little cheaper type of education. The flexibility of online learning is another appealing aspect; students may schedule or manage their time to complete online courses. In order to maximise students' learning potential, learning environments

like blended learning and flipped classrooms integrate in-person education with technology (Dhawan, 2020).

In reaction to unforeseeable events like the COVID-19 pandemic, emergency remote teaching (ERT) describes the quick switch from traditional face-to-face education to online or distance learning. Although the terms "online learning" and "ERT" are sometimes used interchangeably, ERT varies greatly from purpose-built online courses in that it lacks their conscious design and pedagogical methodologies. Rapid adoption of ERT might cause difficulty to sustain high standards of instruction, student engagement, and fair access to education. Hodges et al. (2020) emphasize the need for faculty members to work towards practical solutions while acknowledging the limits of online teaching technologies in this environment. The digital gap, which contributes to educational inequality, is one of the crucial difficulties encountered during emergency remote teaching. The use of remote learning by students from disadvantaged backgrounds may be hampered by their lack of access to essential equipment and dependable internet connectivity (Bates, 2019). To close this gap and guarantee that all students have access to educational resources and can participate in virtual classrooms, institutions must make active efforts to provide assistance and resources, such as loaner devices and internet subsidies. To accommodate different schedules and situations and promote inclusivity, teachers should also consider asynchronous learning possibilities (Hodges et al., 2020). Following the emergency switch to remote teaching, academic institutions and educators are analyzing the lessons they have taken away and looking at ways to improve their readiness for future disruptions. The ERT experience has made clear how important it is for educators to receive professional development in digital pedagogy and online instructional design (Hodges et al., 2020). Resources, webinars, and training programs have been developed as a result of collaborative efforts within the academic community to provide instructors the knowledge and abilities they need to successfully navigate ERT scenarios. Institutions might consider including aspects of online pedagogy into their standard teacher-training courses continuing to ensure that educators are more efficiently prepared to switch between in-person and remote education.

2.2.3 Education during COVID-19

The SARS-CoV-2 virus, known as coronavirus disease COVID-19 has influenced teaching settings by leading to online education. Many virus-infected individuals had a mild to severe respiratory disease, and some of these people recovered without needing special care. Serious illnesses, especially among older individuals and those with underlying medical conditions, were more common during the COVID-19 pandemic. The virus posed risks of severe illness or mortality across all age groups. Knowledge about the disease and preventive measures such as maintaining distance, wearing masks, and practicing hand hygiene were crucial in preventing infection.

The global epidemic has impacted many industries; however, the education industry was particularly impacted. People's goals and demands have changed because of the virus's unchecked and rapid spread (Işık & Bahat, 2020). The COVID-19 pandemic has led to a widespread avoidance of traditional face-to-face education due to the associated risks. The transition from in-person instruction to online learning has introduced pedagogical challenges, necessitating adaptations in teaching strategies, curriculum objectives, and assessment processes (Flores & Gago, 2020). Teachers have faced significant obstacles adjusting to online teaching, maintaining student engagement, and supporting their growth and learning (König et al., 2020). Consequently, there is an increasing demand for new research, instructional approaches, and educational resources to address these challenges. The shift to online platforms has transformed communication dynamics of replacing direct interaction with reliance on devices such as cameras, microphones, and computer screens, reducing opportunities for uninterrupted sound and meaningful eye contact (Huber & Helm, 2020).

To investigate the effectiveness of online education during Covid-19, the Ministry of National Education (MoNE) of Türkiye investigated the efficiency of online education and the results showed that in the category of access to remote learning, many parents and students have limited access to the internet. However, teachers and administrators claim that students experience more difficulties with internet connection than parents and students do. The difficulty could be explained by the fact that parents and children with internet connectivity issues cannot respond to the questionnaire because it is being used in an online setting. It was reported that most educators (about 70%) attempted to include

students who could not enroll in distant education programs for various reasons (MEB, 2020). During this procedure, it was discovered that roughly 80% of the students and parents could readily interact with their teachers and that teachers generally communicated with their students and parents once a week (49%) on average. It has been shown that the primary means of contact between students and professors is through messaging services like WhatsApp and Telegram, as well as through direct phone conversations (MEB, 2020). When the studies conducted by teachers and administrators in the distance education process are examined, it is revealed that a high percentage of people (66%), as well as many teachers (84%), are supported by the school administration in this process. Approximately 50% of the 36 school administrators reported that they routinely monitored the teachers' distance learning procedures, provided feedback to the teachers about the circumstances, and supported the teachers who could not involve in the process. Most participants (80%) seem to think that telling students and parents about remote learning is beneficial (MEB, 2020).

Regarding the utilization of EBA TV and the official website for distance education, a significant portion of students and their parents (65%) watched the lessons on EBA TV, and 36% of the research participants took part in the live lessons delivered via EBA website¹. According to the research, 32% of the kids who took part in it did not have access to live lesson apps since they were in primary school's first and second grades. Additionally, 77% of the students engaged in the tasks and activities that the teachers assigned them to do on eba.gov.tr, and 65% of the kids were found to have completed their assignments. This circumstance showed that while using distance learning, both professors and students commonly favor EBA TV and the eba.gov.tr website (MEB, 2020). When the questions posed to determine the positive and negative aspects of distance learning were analyzed, 6.2% of the teachers stated that they experienced no problems with the procedure. The involvement of children from impoverished backgrounds during the process and the lack of expertise teachers have with remote learning have been identified as challenges for school administrators, along with the issue of students' access to technology. Only 7.5% of the managers claimed the procedure was pleasant (MEB, 2020).

¹ <https://eba.gov.tr>

While some educational institutions resumed face-to-face instruction, others continued offering sessions via online platforms like Zoom or EBA Live (Atmojo & Nugroho, *ibid*). The gradual reopening of schools for face-to-face instruction began in September, October, and November of 2020. However, due to the deteriorating pandemic, schools reverted to online education at the end of November (Atmojo & Nugroho, *ibid*). In addition, all Turkish institutions implemented distance learning between April 29 and May 17, 2021, and support and training classes for eighth- and twelfth graders began on May 17, 2021. Finally, on June 7 of the same year, face-to-face instruction was reinstated in all secondary and high institutions, albeit for only two days per week (Atmojo & Nugroho, *ibid*).

2.2.4. English Language Teaching During Covid-19

Similar to other nations in response to the global Covid-19 pandemic, Türkiye has implemented several measures to mitigate disruptions in the education system. To maintain educational continuity, these measures included the utilization of EBA TV, the EBA digital platform, and EBA live classes (Atmojo & Nugroho, 2020). As part of these measures, lesson durations were reduced from 40 to 30 minutes with the introduction of EBA live classes and remained at 30 minutes even after the return of face-to-face sessions. The English course curriculum remained identical, and face-to-face instruction for 12th graders was scheduled to end in September (Atmojo & Nugroho, *ibid*).

Self-confidence, closeness to pupils, self-management, and learner preparedness are the elements that impact teacher readiness the most, according to a mixed-method research of 25 nations conducted during the Covid-19 epidemic. While the study emphasises that teachers, particularly in online learning environments, play a critical role in enhancing learner motivation, collaboration, engagement, and autonomy through the implementation of interactive tasks and humanistic approaches, the study also notes that students' reluctance, lack of preparation, and contextual factors can impede learning development. The technical, pedagogical, and psychological aspects of online instruction are also covered in this study. These aspects can differ from country to country depending on how easily accessible ICT tools are to teachers or how much support they receive prior to and during online instruction (Koruyan et al., 2022).

During the Covid-19 pandemic, the discipline of English education, like other subject areas, also encountered challenges. However, the use of online English instruction before the outbreak and the familiarity of some English language teachers and students with online instruction proved advantageous during this period of uncertainty (Bailey & Lee, 2020). Since the 1970s, computer-assisted language learning (CALL) has been used for language teaching and learning, laying the groundwork for online language instruction (Bailey & Lee, 2020). The advent of technology significantly impacted English language education and made online language learning possible (Bailey & Lee, 2020).

A thorough investigation based on an integrated literature review is required to understand the whole picture of English language instruction. This research should build on previous studies' conclusions about difficulties encountered, problems solved, benefits or drawbacks of emergency remote teaching (ERT), instructional strategies and platforms, technology resources, and student and teacher-related issues. In terms of an integrated literature review for this crucial time, it is evident from the literature that there is a significant gap. The Covid-19 pandemic's first year of integrating language instruction and study into emergency online education is notable for several reasons. Program designers, instructors, students, families, and school administrators may be inspired by learning from the weaknesses and strengths of emergency online teaching and learning from a global perspective to enhance the efficacy and efficiency of language training during such critical moments. From a research perspective, integrative review studies enable the production of generalizable conclusions. Review study that examines how English was taught in a crisis situation online during the first year of the Covid-19 epidemic may thus provide vital insights into pedagogical and techno-pedagogical difficulties (Erarslan, 2021).

2.3. Relevant Research

Several studies worldwide and in Türkiye on self-efficacy and teachers' self-efficacy beliefs on face-to-face and online education in the literature have been reviewed.

2.3.1. Relevant studies in the world

When the studies on the self-efficacy of English language teachers about face-to-face education are examined in general, it is seen that the self-efficacy beliefs of teachers and preservice teachers have been examined in terms of different variables. These variables have been gender, professional seniority, academic achievement, grade level, in-service training status, and the type of faculty they graduated from. The pedagogical formation is one of the crucial determinants of teacher self-efficacy. The study on professional knowledge and competency achievement of agricultural teachers with and without pre-service teacher preparation in Malaysia compared the professional competencies of 141 agricultural teachers who had and could not receive pedagogical formation education. In the study, it was concluded that teachers with pedagogical formation education had high proficiency. No significant difference was found in terms of professional competency among teachers of different races, ages, gender, professional experience, and particular field (Nazri & Barrick, 1988). The study comparing the proficiency levels of teachers and teacher candidates in the USA and Scotland, the role of education level and professional experience variables in teacher efficacy has been examined. While the results show no difference between teachers, they show that candidates have lower proficiency than teachers. In addition, a significant difference was found between teacher proficiency, professional experience, and age variables (Campbell, 1996).

It is seen in the studies that the self-efficacy perceptions of English language teachers have been examined in the context of different factors. These factors have been measurement and evaluation, classroom management, teaching strategies, relations with education stakeholders, ensuring student participation in the course, and student success. The study on teachers' self-efficiency, personality, and teaching was conducted to determine the effect value of general psychological characteristics and the effectiveness of teaching examined by the analysis method (Klassen & Tze, 2014). As a result of the research, there is a moderately significant relationship between teacher self-efficacy and achievement levels. In addition, it is striking that there are studies to determine only English language teachers' self-efficacy perceptions. To predict teachers' self-reported mental stimulation and classroom management, Holzberger and Prestele's (2021) study on this topic looked at the relationships between teachers' self-efficacy in classroom management and instruction, school-level efficacy, and external school characteristics

(like cooperation and educational leadership). Results from 4255 instructors from 246 institutions who participated in the 2018 Austrian Teaching and Learning International Survey (TALIS) were analyzed. Individual and institutional levels revealed substantial connections between teachers' self-efficacy, self-reported mental engagement, and classroom administration. Classroom management varied depending on the school's efficacy level, and teacher collaboration moderated the relationship between self-efficacy and classroom management. These findings highlight the importance of contemplating the school environment when comprehending teacher self-efficacy.

One of the interests of teacher self-efficacy research is related to the proficiency of English language teachers and their perceived self-efficacy beliefs. Shim (2001) found no direct relationship between English language teachers' proficiency and their self-efficacy beliefs. That is because the study was one of the earliest studies measuring teacher self-efficacy and using the TES developed by Gibson and Dembo (1984) the focus of which was the general self-efficacy of teachers instead of English language teachers' academic self-efficacy (Faez & Karas, 2017). Teachers with general teaching efficacy and higher personal teaching efficacy were revealed to be more active in responding to student questions, had more self-confidence, had more confidence in the classroom, compared to teachers with low self-efficacy beliefs (Gibson & Dembo, 1984). It was found that they showed more academic concentration. It has been noted that teachers whose personal and general teaching skill has yet to improve, tend to give up fast when they cannot get the desired outcomes.

On the other hand, the studies by Chacon (2005) and Eslami and Fatahi (2008) revealed that self-reported English language proficiency positively correlated with teachers' self-efficacy. In these studies, TSES-12 items, which were developed for English language teachers, were used (Faez & Karas, 2017). These studies show the importance of the reliability and validity of the tests used to investigate the self-efficacy of English language teachers. The study on English teachers' perceived efficacy in Venezuelan middle schools examined the self-efficacy perceptions of English teachers working in Venezuela, English language teachers' competencies in educational strategy, student participation, and classroom management, competencies in speaking, reading, writing, and listening in English, cultural information, and the relationship between the pedagogical strategies they used and student learning. According to the research results, teachers' competencies

in educational strategies are higher than their competencies in classroom management and student participation. Teachers' proficiency is related to their proficiency in knowing English, and there is no statistically significant relationship between experiences and student participation, educational strategies, and proficiency in classroom management (Chacon, 2005).

Teachers have always been an essential part of student success. In this sense, student achievement is another focus of teacher self-efficacy beliefs. Many studies found a direct relationship between students' success and teacher-perceived self-efficacy. According to Caprara et al. (2006), teacher self-efficacy plays a major role in student achievement; that is, low self-efficacy has little effect on influencing even motivated students. On the other hand, teachers who have high self-efficacy beliefs endure severe circumstances and persevere even the situations that threaten their self-efficacy. Similarly, the relationship between teachers' self-efficacy and their attitudes toward student motivation, and classroom management was investigated. It was concluded that teachers with high self-efficacy exhibit more humane classroom management behaviors and support student autonomy in problem-solving more than teachers with low self-efficacy (Wolfoolk et al., 1990). The study on self-efficacy and learning environment examined the relationship between teacher self-efficacy and the regulation of the learning environment. The study claims that the teachers' self-efficacy beliefs affect their views on teaching. Thus, it is effective in differentiating the teaching framework. However, it has been concluded that teachers with high self-efficacy beliefs are more successful in motivating students with low motivation, are more effective in setting goals in teaching, and can use time better (Lorsbach & Jinks, 1999).

Teacher self-efficacy also has a role in students' academic success. There is different research on the effects of TSE on the academic success of students. Lazarides et al. (2021) examined changes in class-level student perceptions of teaching quality over one school year in early secondary school. The sample included 1996 students and 105 homeroom teachers. The results decreased in student-perceived emotional support, classroom management, and instructional clarity. Teacher-reported self-efficacy did not predict changes in teaching quality, but teacher-reported enthusiasm buffered the decline in class-level classroom management. Another study by Wang (2022) examined the correlation between teacher emotional intelligence (EI) and student academic achievement, focusing

on the mediating role of teacher work engagement. A sample of 365 Chinese teachers from 25 public middle schools participated, providing teacher EI, work engagement, and self-efficacy measurements. Student academic achievement was assessed using the previous term's grades reported by the students. The results indicated that teacher work engagement partially mediated the relationship between teacher EI and student academic achievement. Additionally, the impact of teacher work engagement on student achievement was more pronounced for teachers with high self-efficacy.

Direct experiences, vicarious experiences, verbal persuasion, and physiological and emotional states affect teacher self-efficacy (Bandura, 1997). The study on African American teacher's self-efficiency has tried to determine the sources of a teacher's self-efficacy. The research determined that when teachers' self-efficacy beliefs decrease, they tend to increase their self-efficacy by considering past achievements (Milner & Hoy, 2003). Teacher self-efficacy is a multidimensional notion, and it needs to be studied comprehensively. The study on teacher self-efficacy examined personal, structural and environmental factors and their connections with teacher, classroom, school, and main traits and the three areas of teacher self-efficacy (TSE): pupil participation, instruction, and classroom administration. It used the 32-country TALIS data set compiled by the OECD. The features were found to be uniquely associated with each of the three TSE domains, most notably those pertaining to the classroom. Together with the results of structure equation models, this demonstrates that TSE is a multidimensional construct with international significance. The findings were relevant for instructional scholars, lawmakers, and professionals (Fackler et al., 2021).

According to research, teachers who have high levels of self-efficacy are more open to trying new teaching techniques, set more difficult goals for themselves, are more organised and plan ahead, concentrate on solving problems, ask for help, and change their teaching methods when faced with difficulties (Lazarides & Warner, 2020). In order to identify the elements impacting TSE throughout change and the essential support systems to sustain high TSE, 29 empirical papers were analysed as part of the study on teacher self-efficacy, which indicated the association between curriculum or assessment reform. Studies have discovered that environmental influences lessen TSE during reform using the systematic quantitative literature review approach in combination with Social

Cognitive Theory and sources of self-efficacy. Supporting high TSE professional growth was shown to be required (Gordon et al., 2023).

Compared to teacher self-efficacy studies in face-to-face education, self-efficacy belief studies in online education could be considered relatively recent. Especially during the COVID-19 Pandemic, which emerged in 2019, online education and research about it has become widespread. In terms of the quality of online education, the quality of the teachers who teach the course and their knowledge, skills, and experience in online learning-teaching environments are of great importance (Sae-Khow, 2014). However, many teachers feel they need to be more competent in terms of teaching in online environments (He, 2014; Sprague, et al., 1998). Teachers have a certain level of belief about how competent they are in using online learning-teaching environments, which may affect how they use online learning-teaching environments. Many research findings reveal the relationship between the use of technology and belief (Ottenbreit-Leftwich et al., 2010).

According to Hung (2010), self-efficacy is a key component in determining a teacher's preparation for online instruction. One of the most important aspects determining teacher candidates' abilities to teach and learn online is self-efficacy. It is crucial in figuring out whether a teacher is prepared to teach online (Hong, 2010). One of the most significant aspects influencing teacher candidates' online learning-teaching abilities is the research by Woodcock et al. (2015). A recent study by Symes et al. (2022) investigated the impact of the COVID-19 pandemic on the trajectory of teacher self-efficacy improvement among student teachers using latent growth curve models. Student teachers subjected to teaching throughout the first COVID-19 lockdown demonstrated considerably lower self-efficacy growth over the course of a semester compared to their counterparts who had the opportunity to gain practical experience in schools before the pandemic. These findings suggest the existence of a cohort of student teachers who might start the teaching field with a lower sense of self-efficacy than is expected. Teachers with little expertise teaching online were unsure of their capacity to use the latest technologies in the classroom during the epidemic. Similar issues were experienced by teachers who were unprepared to teach online and those who got insufficient pedagogical assistance (Bao, 2020; Pressley, 2021; Rasmitadila et al., 2020; Toto & Limone, 2020).

2.3.2. Relevant studies in Türkiye

Studies on English language teacher self-efficacy abroad have started earlier. It is seen that the studies carried out in our country have intensified in recent years. Studies generally show that, English language teachers have shown high level of self-efficacy beliefs in Türkiye (e.g., Baş, 2010; Tunç-Yüksel, 2010; Memduhoğlu & Çelik, 2015; Deneme, 2019). These studies generally found no statistically significant difference between variables, such as gender, experience, school type among teachers who work as an EFL teacher in Türkiye (e.g., Esen, 2012; Üstüner et al., 2009; Yenen, 2018). However, Köyalan (2004) found a significant relationship between the self-efficacy perceptions of English teachers and their professional seniority and teaching experience. Lu and Mustafa (2021) investigated the beneficial effects of English teachers' sense of efficacy on students' academic participation and concluded that teachers' individual and collective efficacy perceptions can positively affect students' learning participation.

Studies have shown that TSE might have an impact on work satisfaction as well. Using information from the "Teaching and Learning International Survey" (TALIS), Kasalak et al. (2020) looked at the connection between teacher self-efficacy and work satisfaction. A total of 426,515 instructors from 102 separate datasets in 50 different countries were analysed. The results indicated a significant association between teacher self-efficacy and job satisfaction. The year of the survey administration was found to moderate this relationship, while the factors, such as continents, countries, cultural structure, and human development indices did not have a moderating effect. Self-efficacy has also been shown to be reciprocal with administrator-teacher communication. The study investigated the relationship between collaboration among administrators and teachers and teachers' self-efficacy (Atıf-Kubilay, 2022). It was conducted in the Ataşehir district of Istanbul during the 2018-2019 academic year. The sample included 213 administrators and teachers from six primary and six secondary schools. Findings showed that teachers' self-efficacy varied based on age, seniority, and in-service training, with more experienced and in-service teachers exhibiting higher self-efficacy. The study also found a significant positive relationship between collaboration between principals and teachers and teachers' self-efficacy.

Teacher self-efficacy has also been claimed to predict teachers' psychological well-being according to research. A study by Cansoy et al. (2020) investigated the connection between teacher self-efficacy and psychological health. The data was collected from 412 public school teachers in Istanbul district of Kadıköy. Scales measuring teacher self-efficacy and psychological well-being were used to collect data. Self-efficacy and psychological well-being were found to be high among teachers in the study. In addition, a positive and statistically significant relationship existed between teacher self-efficacy and psychological well-being. In contrast, teacher self-efficacy has been shown to be a predictor of teachers' psychological well-being.

Findings from previous studies have produced comparable results in that teachers frequently utilize computers for various reasons, have high judgments of their own computer self-efficacy, and are proficient in several applications. The study on Turkish, Class and Mathematics Teachers' computer self-efficacy, internet use for educational purposes their self-efficacy, attitudes towards technology and their level of using information technologies were compared (Saracaloğlu et al., 2012). As a result of the research, it was determined that there was no relationship between the teachers' computer self-efficacy and their level of using information technologies. There was a negative, low-level significant relationship between the teachers' attitudes towards technology and their level of using information technologies. In addition, a positive, moderately significant relationship was found between teachers' educational internet self-efficacy beliefs and their level of using information technologies.

A similar study on high school teachers' lifelong learning tendencies and educational internet use self-efficacy beliefs was applied with Anatolian high school teachers (Erdamar et al., 2017). In the study, lifelong learning orientations and educational internet use self-efficacy were examined. As a result of the study, it was determined that the participants' lifelong learning orientations were high, their self-efficacy perceptions of using the internet for educational purposes were sufficient, and there was a positive and moderate relationship between the two variables. In addition, the participants' lifelong learning tendencies were found to be higher in favor of female participants.

As much as teachers, teacher candidates have also been the focus of self-efficacy studies. For instance, the relationship between educational internet usage self-efficacy and academic self-efficacy was examined (Kabaran et al., 2016). As a result of the research,

it was determined that the participants' academic self-efficacy beliefs and educational internet use self-efficacy beliefs levels were sufficient. It was determined that pre-service teachers' self-efficacy towards using the internet for educational purposes did not differ according to gender and general weighted grade point average (GPA) variables but differed according to the department variable. It was determined that the academic self-efficacy of the participants differed according to the gender and GPA variables but did not differ according to the department variable. In addition, it was determined that there was a moderately significant relationship between the participants' self-efficacy for educational internet use and their academic self-efficacy.

The study on the technology usage level of teacher candidates by Korucu et al. (2016) the pre-service teachers' internet usage status was examined. The variables of using the internet in teaching, liking using the internet in teaching, using the internet in communication, and using the internet to share information were used. As a result of the research, a significant difference was found in the attitude scores of the participants according to the independent variables. It has been determined that more than half of the participants use the internet to do research and to help them with their homework. A similar study examined the pre-service teachers' attitudes towards computer-assisted education and their perceptions of self-efficacy (Doğru, 2020). The independent variable of the study is the frequency of computer use, gender, having a computer or not, and the variables of the program they are enrolled in. The results of the study have shown that, the attitudes of teacher candidates toward computer-assisted education are in a positive direction, and their self-efficacy is at a prominent level. Teachers are required to possess an elevated degree of self-efficacy and digital literacy. They also need to be able to use technological resources since the era in which we live is known as the "digital era". Analysis of digital literacy self-efficacy levels of 251 pre-service teachers learning at the departments of classroom teaching and social sciences teaching at a state university in Türkiye were examined (Aslan, 2021). The research found that pre-service teachers' digital literacy self-efficacy levels differed by gender, department, home computer, internet use, and the purpose of technology use but not by class level, university entrance score type, or technology use. Similar research with pre-service teachers, internet self-efficacy level and problematic internet use were examined (Bozkırlı, 2018). Considering the results of the study including 209 pre-service teachers, it was determined that the inappropriate internet use of the pre-service teachers was moderate, and their internet self-

efficacy was high. The study carried out by Tarman and Baytak (2011) revealed that prospective teachers' perspectives on the role of technology in education, their computer use skills and their views on the use of technology in classes. The participants stated that their computer use skills consisted of the courses they took at the university and current internet applications. In addition, it is seen that the participants have a positive view of the integration of applied computer subjects into education. A similar study with 70 Turkish teacher candidates, revealed that the teacher candidates found themselves sufficient in their self-efficacy perceptions of educational internet use (Varışoğlu et al., 2012).

Teaching in an online context involves special skills in contrast to traditional classroom instruction. These skills include managing an online classroom, creating lessons for an online platform, motivating and engaging online students, creating lessons for an online setting, encouraging a social and learner presence online, and more (Kennedy & Archambault, 2012). The study with 183 pre-service classroom teachers, the participants' educational internet use self-efficacy was investigated (Tuncer & Özü, 2012). As a result of the study, no significant difference was found in the self-efficacy perceptions of primary school teacher candidates in terms of having a personal computer and gender. In addition, a significant difference was found between the self-efficacy perceptions of the pre-service teachers regarding the use of the internet for educational purposes, in the variables of duration of internet use, type of education, class of study, and environment for connecting to the internet. The study determined that as the education levels of the pre-service teachers increased, their self-efficacy towards using the Internet for educational purposes also increased. As previously mentioned, research on teacher efficacy uses various tools in various contexts. The teacher candidates' self-efficacy towards using the internet for educational purposes was examined (Yenilmez et al., 2012). As a result of the research conducted with 268 teacher candidates, it was determined that the educational internet use self-efficacy of the participants did not differ according to the class and academic average variables, but varied according to gender, computer success, and computer ownership. In addition, as the duration of internet use increases, the self-efficacy beliefs of using the internet for educational purposes also increase positively.

Different aspects of motivational and self-regulatory processes are impacted by self-efficacy beliefs. They influence the choices people make and the actions they do. Most

individuals participate in and avoid things they feel competent and secure performing. The views on self-efficacy beliefs of educational internet use and innovative teacher characteristics were examined (Dursun, 2016). As a result of the study, the mean of self-efficacy beliefs of educational internet use was found to be between 2.70 at the lowest and 4.16 at the highest. When the averages related to the perceptions of innovative teacher characteristics were examined, it was found that the lowest average was 3.84, and the highest average was 4.20. There was no significant difference between the variables of educational internet use, age, having a computer, gender, time spent on the internet and frequency of internet use, and perceptions of innovative teacher characteristics.

Overall, as face-to-face education dates to early times, many studies could be found about self-efficacy in face-to-face contexts (e.g., Goddard et al., 2000; Tschannen-Moran et al., 1998). However, since online education is a relatively newer phenomenon, studies still need to be elaborated in this context. There are few studies examining teacher self-efficacy in both face-to-face and online education.

3. METHODOLOGY

The main goal of this chapter is to provide information about the research methodology in detail. The type of the study, target group, data collection tools, data collection procedure, and data analysis will be mentioned in this chapter.

3.1. Research Design

This study aims to investigate the factors influencing teachers' self-efficacy beliefs and perceptions and their impact on their teaching practices, instructional strategies, classroom management, and interactions with students. It also seeks to identify the sources of self-efficacy development among teachers, including prior experiences, professional training, and social support. Additionally, the research explores relationship between teacher self-efficacy and variables, such as gender, school type of teachers, and teaching experience. Explanatory mixed-method research combines quantitative and qualitative approaches in a single study to investigate and explain a phenomenon (Creswell et al., 2004; Creswell, 2009; Creswell & Plano Clark, 2011). This method is frequently chosen when the research question requires a comprehensive understanding of the phenomenon, enabling academics to understand the phenomenon in greater depth and nuance. This study adopted explanatory sequential mixed-methods research design since it seeks “How” and “Why” questions. It might be chosen for a research endeavor for the following reasons.

Quantitative and qualitative methodologies have distinct advantages and disadvantages that support one another (Lewitt et al., 2018). Quantitative research helps determine correlations between variables. In contrast, qualitative research is better adapted for deeply examining complex phenomena. By combining the two methods, researchers can take advantage of their complementary benefits and gain a greater awareness of the subject under investigation (Figure 1).

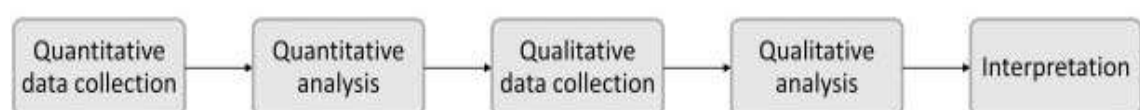


Figure1. Explanatory sequential mixed method research design (Creswell, 2009, p. 193)

Combining quantitative and qualitative methods enhances the validity and dependability of the study's findings. Triangulation employs multiple data sources for cross-validation, and by combining both types of data, researchers may reach more accurate conclusions (Creswell & Plano Clark, 2011). In addition, using multiple methodologies can provide a complete picture of the phenomenon under investigation, thereby enhancing the credibility of the research findings (Onwuegbuzie & Johnson, 2006).

Thirdly, qualitative data can provide profound insights into participants' experiences, attitudes, and beliefs. In contrast, quantitative data provides numerical information that is easier to analyze scientifically. Combining both data types allows the phenomenon under investigation to be comprehended with greater depth and nuance (Lewitt et al., 2018). Moreover, the combination of various categories of data can result in a more nuanced comprehension of the research problem and a complete description of the phenomenon under investigation (Creswell & Plano Clark, 2011). Sometimes, more than one research methodology is required to address research issues satisfactorily. Explanatory mixed-method research can address complex research problems requiring quantitative and qualitative data (Creswell & Plano Clark, *ibid.*). It is particularly useful for research queries that necessitate a comprehensive comprehension of participants' experiences, attitudes, and behaviors.

Due to its capacity to provide a comprehensive and multifaceted comprehension of the phenomenon, the explanatory mixed-method design was chosen for this study on teacher self-efficacy. Combining qualitative and quantitative methods, this research design permits a more robust and insightful investigation of the complex factors that influence teacher self-efficacy beliefs. Using scales and standardized measures permits a quantitative evaluation of teachers' self-efficacy levels, thereby facilitating the identification of prospective trends and patterns in the data. Simultaneously, the qualitative component, such as interviews or focus groups, permits an in-depth examination of teachers' experiences, perceptions, and the contextual factors influencing their self-efficacy beliefs. To gather the quantitative data, the current study firstly performed online scales for Turkish EFL teachers in Türkiye. After the quantitative phase is over, to obtain a more thorough explanation of the findings of the quantitative steps,

qualitative data were collected using semi-structured interviews. The interviewees were working professionals. The overall research design is presented in Table 1.

Table 1. Research design by research questions

Quantitative Data	Qualitative Data
Research Questions 1 & 2	Research Question 3
TEBS-Self & MNESOETS scales	Semi-structured interviews

3.2. Participants

The participants of the quantitative phase of the study were English as a Foreign Language teachers who work in private or state schools in Türkiye. 220 Turkish English teachers participated in the quantitative phase of the study, and one English teacher participated in the pilot study of the interview and 10 participated in the semi-structured interviews, which combine the qualitative phase of the study. The participants were chosen by *random sampling method* (Dörnyei, 2007). They were reached by sending links of the scales via e-mail, social networking sites (Facebook, Instagram), WhatsApp and Telegram. Demographic information of the participants is presented below:

Table 2. Information of the participants for the scales

Demographic Information		N=220
Gender	Frequency (f)	Valid Percent (%)
Female	141	64,1
Male	79	35,9
Teaching Experience		
0-5 year (s)	58	26,4
6-10 years	80	36,4
11-20 years	68	30,9
20 years and over	14	6,4
Working in		
Public school	151	31,4
Private school	69	68,6
School Type		
Primary school	59	27,1

Secondary school	97	44,5
High school	67	28,4
Graduated Department		
ELT	115	52,5
English Language and Literature	59	26,9
Other	46	20,6

The participants of the semi-structured interview were 10 English teachers working in various kinds of schools and different cities (Afyon, Ankara, Çorum, Isparta, İstanbul, Kayseri, Konya). The participants were chosen by *purposive sampling method* (Dörnyei, 2007). They were asked if they taught online during Covid-19. They were reached by sending messages via WhatsApp, and interviews were conducted via Zoom. The study was recorded by their consent. The demographic information of the participants for the semi-structured interviews is shown in Table 3.

Table 3. Information of the participants for the semi-structured interviews

Participants	Age	School Type	Grade	Graduated Department	Living City
Participant 1	30	Public	Primary School	ELT	Ankara
Participant 2	32	Private	Primary School	ELT	Çorum
Participant 3	29	Public	High School	ELT	İstanbul
Participant 4	30	Public	High School	ELT	Isparta
Participant 5	28	Public	Secondary School	ELT	Afyon
Participant 6	35	Public	Secondary School	ELT	Konya
Participant 7	42	Private	Secondary School	ELT	Kayseri
Participant 8	45	Public	High School	ELT	Isparta
Participant 9	42	Public	Secondary School	ELL	Konya
Participant 10	30	Public	Primary School	ELL	İstanbul

3.3. Data Collection Tools

3.3.1. Teacher's Self-efficacy Scale (TEBS-Self)

In the study's quantitative phase, two different scales were used. One of these tools was the "Teacher's Self-efficacy Scale (TEBS-Self)," developed by Dellinger et al. (2008). The scale aims to measure teachers' self-efficacy beliefs about their teaching process in face-to-face education. Developed in the United States, the scale is suitable for international participants (Dellinger, 2008). Based on the analysis, the Teacher's Self-

efficacy Scale is regarded as reliable and valid to evaluate self-efficacy in face-to-face education. A reliable scale must have a high level of internal consistency, and the TEBS-Self demonstrated adequate levels of reliability. The Cronbach's alpha was calculated as .913, which shows a perfect internal reliability. The scale was determined to include 4 themes: Planning, Classroom Management, Assessment and Student Motivation. Dellinger et al. (2008) additionally presented proof for the validity of the scale by undertaking factor analysis, which verified that the TEBS-Self items were associated with a singular core concept of teacher self-efficacy. Teacher efficacy differs from teacher self-efficacy beliefs (Dellinger et al., 2008). Thus TEBS-Self scale is more suitable for this research since it is aimed to measure the self-efficacy beliefs of English teachers. The TEBS-Self is a 4-point Likert scale (Appendix 1). TEBS-Self scale is a recent and widely used scale for teacher self-efficacy. Conroy et al. (2019) utilised TEBS-Self scale to examine teacher self-efficacy. Babaei and Abednia (2016) also used TEBS -Self scale in their research on the relation between reflective teaching and self-efficacy beliefs.

3.3.2. Michigan Nurse Educators' Sense of Competence for Online Teaching Scale (MNESEOTS)

The second scale was the Michigan Nurse Educators' Sense of Competence for Online Teaching Scale (MNESEOTS) (Robinia, 2008). This tool was adapted from Tschannen-Moran and Woolfolk Hoy's Teachers' Sense of Competence Scale (TSES) for K-12. The scale consists of 4 themes: Classroom management, Student engagement, Assessment, and Technical Issues. There are 32 items with nine grades on the scale. Cronbach's alpha was found as .964, which shows a perfect internal reliability (Appendix 2). The MNESEOTS is a reliable and valid instrument developed particularly to measure teacher self-efficacy in online teaching environments. This scale has demonstrated strong psychometric properties, including established reliability and validity, making it a useful instrument for researchers investigating educators' perceptions of their abilities to navigate and excel in digital learning environments.

One of the primary benefits of using the MNESEOTS is its adaptability, as it can be applied to educators from a variety of disciplines, not particularly for nurse educators. This adaptability enables researchers to investigate teacher self-efficacy in online teaching in a variety of educational contexts, providing valuable insight into educators' confidence in their ability to effectively engage and support students in virtual learning

environments. The scale's themes are in parallel with TEBS-Self themes, which is also a valid reason why it has been chosen for this study. The MNESEOTS provides a dependable and valid method for examining teacher self-efficacy in online teaching, making it a valuable tool for researchers seeking to gain a deeper understanding of educators' perceptions and confidence in navigating virtual learning environments. Its adaptability and established use in prior research demonstrate its efficacy in examining teacher self-efficacy across a variety of educational contexts, supporting the study's objective of contributing valuable insights to the field of online education.

The extensive use of the MNESEOTS in previous research attests to its practical applicability and efficacy in assessing educators' perceptions of competence in online instruction. Its established use in a variety of studies bolsters the scale's reliability and assures its ability to produce consistent and meaningful results, thereby augmenting the credibility of the current research findings. Richter (2016), Hampton et al. (2020), Ma et al. (2021), Culp-Roche et al. (2021) and Baroudi and Shaya (2022) used the MNESEOTS to examine the online self efficacy of educators. Incorporating the MNESEOTS into this research on teacher self-efficacy is consistent with the objective of the research, which is to obtain a comprehensive understanding of educators' perceptions of their face-to-face and online teaching proficiency. Using a well-established and rigorously validated instrument, the study can confidently investigate the multifaceted aspects of teacher self-efficacy, cast light on potential obstacles, and identify areas for professional development and support in the domain of online education.

3.3.3. Semi-structured interview

Semi-structured interviews allow participants to express themselves freely, allowing researchers to record the depth of their unique experiences and feelings. This is especially helpful when researching intricate phenomena with strong roots in people's daily lives (Fontana & Frey, 2005; Rubin & Rubin, 2012). The process of producing semi-structured interview questions involved several rigorous stages to ensure accuracy, validity, and reliability in documenting teachers' self-efficacy beliefs regarding face-to-face and online education. Initially, the online scale data were meticulously analyzed and separated into pertinent themes that reflected the most important aspects of teacher self-efficacy in both

instructional settings. These themes served as the basis for developing the semi-structured interview's queries.

To ensure congruence and consistency, the interview questions were composed in tandem with the topics and items of the online scales. This methodology allowed for the seamless incorporation of data from both methods, allowing for a comprehensive and in-depth investigation of teachers' self-efficacy beliefs in face-to-face and online teaching. To establish the dependability and clarity of the interview questions, expert opinions were solicited. Three experts in the field of education provided insightful comments and feedback on the questions, which helped to refine and enhance their clarity, relevance, and overall quality. To improve the validity of the questions, a pilot study was conducted with one EFL teacher at a public secondary school. The pilot study enabled an in-depth assessment of the interview questions, spotting any possible shortcomings or ambiguities that required clarification. On the basis of the pilot study's feedback, some of the questions were revised and improved to assure their relevance and ability to elicit meaningful responses from the participants. The validity and dependability of the interview questions as a whole were enhanced by the iterative review and revision procedure.

By carefully adhering to these stages, the researchers ensured that the semi-structured interview questions were well-designed, pertinent, and capable of eliciting insightful information about teachers' self-efficacy beliefs for both face-to-face and online education. Incorporating expert opinions and conducting a pilot study enhances the credibility and persuasiveness of the research findings, thereby contributing to the progress of knowledge in the field of teacher self-efficacy and its effects for various instructional settings. Apart from demographic questions, there were two parts in the semi-structured interview: Questions related to face-to-face education, 2, and Questions related to online education (Appendix 3).

3.4. Data Collection Procedure

This research on teacher self-efficacy in face-to-face and online education utilized three distinct data collection instruments: the TEBS-Self scale developed by Dellinger et al. (2008), the MNESEOTS scale, and a semi-structured interview.

The TEBS-Self scale was chosen to assess teachers' self-efficacy beliefs in face-to-face education, whereas the MNESEOTS was selected to collect data on teachers' self-efficacy beliefs in the context of online instruction. Both instruments were used to collect quantitative data, allowing for an in-depth examination of self-efficacy in both instructional settings. 220 participants were chosen to collect data. Participants were chosen among teachers with both face-to-face and online education experience at random to guarantee an accurate representation of educators. Different time points were used to capture data to minimize any possible bias. The TEBS-Self and MNESEOTS instruments were administered electronically, by sending scales' links via social networking sites such as Facebook, Instagram or WhatsApp, Telegram and e-mail, and ample time was provided for participants to complete them. The link stayed active for four weeks.

Commonly used to collect qualitative data, semi-structured interviews allow for latitude in the interview process while assuring that all participants are asked the same fundamental questions. Numerous studies have utilized this method to investigate teachers' beliefs and practices (e.g., Moolenaar et al., 2012; Smagorinsky et al., 2010). As the third data collection instrument, a semi-structured interview was used to acquire a more thorough comprehension of teachers' self-efficacy beliefs in face-to-face and online education. The semi-structured interview was applied to 10 English teachers who did not participate in the quantitative phase of the study. Interview participants were selected among teachers with both face-to-face and online education experience to guarantee a meaningful result. Purposive sampling method was used to select semi-structured interview participants. It was conducted in online settings. The participants were interviewed via Zoom and the data was transcribed by utilizing Otter. This interview allowed for a comprehensive examination of the participants' experiences, perspectives, and obstacles pertaining to self-efficacy in both instructional contexts. The semi-structured nature of the interview allowed for the exploration of specific areas of interest in greater depth and the elicitation of rich qualitative data. Creswell's (2009) guidelines for qualitative and mixed-methods research supervised the data collection procedure, assuring methodological rigor and data credibility. Multiple data collection instruments allowed for a thorough and nuanced examination of teacher self-efficacy in both face-to-face and online education settings. The random selection of participants increased the generalizability of the findings.

Overall, the data collection method employed in this study was intended to collect both quantitative and qualitative data to obtain a comprehensive comprehension of teacher self-efficacy in face-to-face and online education. Using well-established assessments and a semi-structured interview, this study sought to contribute to the existing corpus of knowledge on teacher self-efficacy by providing beneficial insights for both teacher training programs and professional growth initiatives. Numerous studies have utilized this method to investigate teachers' beliefs and practices (e.g., Moolenaar et al., 2012; Smagorinsky et al., 2010). In the qualitative dimension of the study, semi-structured interview questions were applied to 10 English teachers.

Regarding ethical considerations, firstly Ethical Committee Approval was received from Institute of Educational Sciences, Süleyman Demirel University on June 14, 2022, numbered 122/22. Participants were informed of the purpose of the study, the data collection procedures, and their right to withdraw at any time. Before participating in the study, all participants provided their informed consent.

3.5. Data Analysis

This study's analysis of the self-efficacy beliefs and perceptions of English language teachers in face-to-face and online education employed an explanatory sequential mixed-method research design. This study sought to obtain a deeper understanding of the factors influencing self-efficacy in various instructional settings by integrating quantitative and qualitative data. The use of well-established assessments and rigorous data analysis methods improves the trustworthiness and veracity of the findings, providing valuable insights for face-to-face and online teacher education and ongoing professional growth initiatives.

3.5.1 Quantitative data analysis

The quantitative data were analyzed using SPSS. To compare and contrast overall self-efficacy beliefs of English language teachers' mean scores of TEBS-Self and MNESEOTS were calculated. Normality tests permitted a comparison of self-efficacy beliefs between face-to-face and online education contexts and investigated possible variations based on demographic variables, such as gender, school type and teaching experience. The overall self-efficacy means was calculated for each teaching media.

Other several different techniques were used to check whether the data were normally distributed. These include visualization (histograms and Q-Q plots), numerical tests (Shapiro-Wilk test, Kolmogorov Smirnov test), and skewness and kurtosis values. As a result of the control, according to the histograms and Q-Q plots, only "Face-to-face education self-efficacy mean score" was seen to be close to normal distribution, but numerical tests determined that this variable did not show normal distribution. Online education self-efficacy scores are not close to normal distribution both visually and numerically. In the analyzes to be carried out in this direction, non-parametric analyzes, Mann Whitney U and Kruskal-Wallis H tests and Dunn's post-hoc test were used. These tests were selected because they frequently compare means within two or more groups and are suitable for interval or ratio data analysis (Field, 2013).

3.5.2. Qualitative data analysis

The semi-structured interview data were examined using a thematic approach. Thematic analysis is a common technique for discovering, evaluating, and communicating trends in qualitative data (Braun & Clarke, 2006). The data were transcribed and coded by using MAXQDA and themes were identified by reading and rereading iteratively.

The qualitative data were subjected to thematic analysis. The data were transcribed and coded, and themes were identified by reading and rereading iteratively. The data revealed five themes for each mode of teaching: (1) Planning, (2) Classroom management (3) Motivation, (4) Advantages and disadvantages (5) Assessment. Data also revealed "Technical issues" theme for online education.

Teachers of English have reported encountering technical issues, such as delayed internet speed, poor audio quality, and software compatibility problems. Due to the need for face-to-face interaction, English language teachers reported feeling disconnected from their pupils in online education. Due to the lack of peer interaction and accountability, English language teachers have observed a decrease in students' motivation for online education. English language teachers reported a need for additional training in effectively using online instructional tools and techniques. Therefore, a new theme was created in accordance with English language teachers' answers.

3.5.3. Validity and reliability of the scales

The scales were analyzed to ensure validity and reliability. For online scales, Cronbach's Alpha was calculated. It was found as .913 for TEBS-Self and .964 for MNESEOTS. An inter-coder reliability test was conducted with MAXQDA 22. The purpose of the test was to determine the level of accord between analysis examining various aspects of face-to-face education and online education. The reliability of the categorization system was determined by the level of consensus among coders, as indicated by the percentage of accord. The number of cases and decisions is excluded from the result because they do not provide any meaningful information. Two independent raters sorted, defined, and identified the categories in the data, demonstrating the reliability of the qualitative analysis. The number of agreements/the number of agreements (x) the number of disagreements multiplied by 100, as suggested by Tawney and Gast (1984, as cited in Aşık & Kuru Gönen, 2020) was used to calculate inter-rater reliability. The result was .91, which demonstrated a high degree of reliability and indicated that raters had come to an agreement regarding the coding and categorization of data. There may be some limitations to obtaining a high level of agreement among programmers, as suggested by these measurements. To obtain a greater awareness of the agreement between coders and the strength of the coding system, it is necessary to consider different aspects of inter-coder reliability. This indicates a satisfactory level of accord among programmers in designating codes to the various online education categories. The lower percentage of agreement compared to face-to-face education can be attributed to the unique challenges of the online learning environment.

4. FINDINGS

This section presents the results of the data analysis and provides a comprehensive summary of the research outcomes. The section includes the presentation and interpretation of the research findings, organized according to the research questions. Quantitative findings, such as statistical analyses and measurements, are presented, accompanied by tables, charts, or graphs to visually represent the data. This section also includes a thorough explanation of the statistical significance of the findings and any patterns or trends observed. In addition to quantitative results, the findings section incorporates qualitative data, usually obtained through semi-structured interviews. The qualitative findings are presented in the form of themes, patterns, and narrative summaries, providing a deeper understanding of participants' perspectives and experiences related to the research topic.

This study's findings shed light on the self-efficacy beliefs of English teachers regarding the two modalities of education and how these beliefs influence their teaching practices. The findings are presented in the following section, which thoroughly analyzes the collected data and emphasizes the major themes that arose from the analysis. The findings of this study help to better insight and understanding of the factors that influence English language teachers' self-efficacy beliefs and perceptions regarding face-to-face and online education, as well as how these beliefs can be strengthened to improve the quality of teaching and learning in both modes of education.

4.1. Quantitative Research Findings

Data collected from a sample of English language teachers were analyzed using SPSS. The results of the examinations shed light on the factors that influence the self-efficacy beliefs of English teachers in various instructional settings. Self-efficacy beliefs are essential in predicting teacher performance and job satisfaction in English language teaching. A sample of English language teachers from various schools and institutions was recruited to assess the research hypothesis. The sample comprised educators with experience teaching in both in-person and online environments. The teachers were asked to complete self-efficacy beliefs scales that assessed their confidence in their capacity to perform various English language teaching-related duties. The scales were administered

for face-to-face and online education to ensure the measurement instrument was consistent in both settings. The findings of this research indicate that the self-efficacy beliefs of English language teachers might differ between face-to-face and online teaching environments. The results emphasize the importance of providing adequate training and support to teachers transitioning to online instruction. In addition, the findings indicate that teaching experience is crucial to developing and maintaining high self-efficacy beliefs among English teachers.

4.1.1. Findings of the research question 1

The first research question investigated the overall self-efficacy beliefs of English language teachers about face-to-face and online education. In accordance with the first research question the mean score of the face-to-face self-efficacy beliefs of the teachers was calculated. TEBS-Self is a 4-point Likert scale. It consists of 31 items. Mean scores of the TEBS-Self, which was used to identify face-to-face education self-efficacy beliefs of teachers are shown in Table 4.

Table 4. Mean scores of TEBS-Self

Item	N	Mean
F2F-Self 1	220	3,27
F2F-Self 2	220	3,44
F2F-Self 3	220	3,36
F2F-Self 4	220	3,58
F2F-Self 5	220	3,50
F2F-Self 6	220	3,47
F2F-Self 7	220	3,38
F2F-Self 8	220	3,55
F2F-Self 9	220	3,42
F2F-Self 10	220	3,52
F2F-Self 11	220	3,45
F2F-Self 12	220	3,48
F2F-Self 13	220	3,38
F2F-Self 14	220	3,44
F2F-Self 15	220	3,52
F2F-Self 16	220	3,52
F2F-Self 17	220	3,50
F2F-Self 18	220	3,57
F2F-Self 19	220	3,45

F2F-Self 20	220	3,42
F2F-Self 21	220	3,43
F2F-Self 22	220	3,54
F2F-Self 23	220	3,49
F2F-Self 24	220	3,56
F2F-Self 25	220	3,43
F2F-Self 26	220	3,52
F2F-Self 27	220	3,35
F2F-Self 28	220	3,41
F2F-Self 29	220	3,52
F2F-Self 30	220	3,49
F2F-Self 31	220	3,55
Scale Mean	220	3,4676

The total mean score of the TEBS-Self is ($M = 3,4676$), which shows high self-efficacy beliefs for face-to-face education. It is indicated that mean score of the items related to “Planning” theme of TEBS-Self (F2F-Self 1, F2F-Self 2) is ($M = 3,355$), mean score of them items related to “Classroom Management” (F2F-Self 3, F2F-Self 4, F2F-Self 5, F2F-Self 6, F2F-Self 7, F2F-Self 8, F2F-Self 9, F2F-Self 24, F2F-Self 25) is ($M = 3,4722$), mean score of the items related to “Motivation” (F2F-Self 10, F2F-Self 11) is ($M = 3,485$), mean score of the items related to “Assessment” (F2F-Self 17, F2F-Self18, F2F-Self 19, F2F-Self 20, F2F-Self 21, F2F-Self 22) is ($M = 3,485$), mean score of the items related to “Classroom Climate” (F2F-Self 27, F2F-Self 28, F2F-Self 29, F2F-Self 30, F2F-Self 31) is ($M = 3,464$). Mean scores of the items suggest that teachers tend to have higher self-efficacy beliefs in the themes, Classroom Management, Motivation, Assessment and Classroom Climate, while they have lower self-efficacy beliefs in Planning theme for face-to-face education.

Mean scores of the MNESEOTS, which was used to identify online education self-efficacy beliefs of teachers are shown in Table 5.

Table 5. Mean scores of the MNESEOTS

Item	N	Mean
Online Self 1	220	5.31
Online Self 2	220	5.02
Online Self 3	220	5.46
Online Self 4	220	5.41
Online Self 5	220	5.50

Online Self 6	220	5.63
Online Self 7	220	5.76
Online Self 8	220	5.60
Online Self 9	220	5.52
Online Self 10	220	5.58
Online Self 11	220	5.61
Online Self 12	220	5.50
Online Self 13	220	5.50
Online Self 14	220	5.41
Online Self 15	220	5.56
Online Self 16	220	5.56
Online Self 17	220	5.51
Online Self 18	220	5.52
Online Self 19	220	5.43
Online Self 20	220	5.65
Online Self 21	220	5.64
Online Self 22	220	5.42
Online Self 23	220	5.60
Online Self 24	220	5.69
Online Self 25	220	5.50
Online Self 26	220	5.68
Online Self 27	220	5.61
Online Self 28	220	5.40
Online Self 29	220	5.45
Online Self 30	220	6.00
Online Self 31	220	5.88
Online Self 32	220	5.90
Scale mean	220	5,5571

MNESEOTS is a 9-point Likert scale. It consists of 32 items related to self-efficacy beliefs of teachers in online education. The total mean score of the MNESEOTS is ($M = 5,5571$), which shows moderate self-efficacy beliefs for online education. With respect to the themes of the MNESEOTS, mean score of the items related to “Planning” theme (Online Self 22, Online Self 23) is ($M = 5,512$), mean score of the items related to “Classroom Management” theme (Online Self 2, Online Self 3, Online Self 7, Online Self 8, Online Self 9, Online Self 15, Online Self 16) is ($M = 5,495$), mean score of the items related to “Motivation” theme (Online Self 4, Online Self 5, Online Self 6, Online Self 14) is ($M = 5,487$), mean score of the items related to “Assessment” theme (Online Self 1, Online Self 10, Online Self 11, Online Self 12, Online Self 13, Online Self 17, Online Self 18, Online Self 19, Online Self 20, Online Self 21,

Online Self 24) is ($M = 5,54$), mean score of the items related to “Technical Issues” theme (Online Self 25, Online Self 26, Online Self 27, Online Self 28, Online Self 29, Online Self 30, Online Self 31, Online Self 32) is ($M = 5, 677$). The mean scores of the items related of each theme show that, teachers tend to have lower self-efficacy beliefs in terms of “Motivation” and “Classroom Management” for online education while they have higher self-efficacy beliefs in terms of “Technical Issues.”

4.1.1.1. The effect of gender on self-efficacy beliefs

The sample included 220 English teachers, 48.9% of whom were male and 51.1% of whom were female. The data collection procedure involved administering two scales to compare self-efficacy beliefs of English language teachers in each medium of teaching. The first 31 questions were derived from the "TEBS-Self" and the remaining 32 were derived from the "MNESEOTS." There were 63 items in total. The effect of gender is presented in Table 6.

Table 6. Mann-Whitney U Test Ranking Average Table for Gender

		Ranks		
	Gender	N	Mean Rank	Sum of Ranks
Online Self Mean Score	Man	79	111.66	8821.50
	Woman	141	109.85	15488.50
	Total	220		
F2F Mean Score	Man	79	114.58	9052.00
	Woman	141	108.21	15258.00
	Total	220		

In the "F2F Mean Score" measurement, the average rank of men is 114.58, higher than the average rank of women of 108.21. This suggests that men score slightly higher than women on this measure. In addition, since the p-value ($p = 0.475$) in the Mann-Whitney U results below is still greater than 0.05, it can be concluded that there is no statistically significant difference between men and women in this measurement. In the "Online Self-efficacy Mean Score" measurement, the averages of males and females are quite close to each other, 111.66 and 109.85, respectively. This indicates that there is no large difference in this measurement between the two genders. Also, the p-value in the Mann-Whitney U results below ($p = 0.839$) Since it is greater than the generally accepted significance level

of 0.05, it can be concluded that there is no statistically significant difference between men and women in this measurement. The difference by gender is presented in Table 7.

Table 7. Mann-Whitney U Test by Gender

	Online Self Mean Score	F2F Mean Score
Mann-Whitney U	5477.500	5247.000
Wilcoxon W	15488.500	15258.000
Z	-.203	-.714
Asymp. Sig. (2-tailed)	.839	.475

As a result, there is no statistically significant difference according to gender in both measurements. This means that men's and women's "Online Self Mean Score" and "F2F Mean Score" are similar. These results are coherent with previous research on the subject. Two distinct instruments were used to measure teachers' self-efficacy in the present study, which may limit the comparability of the results to earlier studies. In addition, this study sample size was small, which may limit the statistical power to detect differences between male and female teachers.

4.1.1.2. The effect of school type on self-efficacy beliefs

Mann-Whitney U Test Ranking Average Test was applied to determine the effect of school type on self-efficacy beliefs of the participants. The findings by school type are presented in Table 8.

Table 8. Mann-Whitney U Test Ranking Average Table (School Type – Public/ Private)

Ranks				
	School Type	N	Mean Rank	Sum of Ranks
Online Self Mean Score	public school	151	111.20	16791.00
	private school	69	108.97	7519.00
	Total	220		
F2F Mean Score	public school	151	107.08	16168.50
	private school	69	117.99	8141.50
	Total	220		

The average rank of the teachers in private schools is higher than teachers in public schools, at 117.99. However, since the p-value ($p = 0.236$) in the Mann-Whitney U results below is again greater than 0.05, it can be said that there is no statistically significant difference between public and private schools in this measurement. When the average rankings are considered, there is very little difference between the scores in public and private schools. However, since the p-value (0.810) in the Mann-Whitney U results below is greater than the generally accepted significance level of 0.05, it can be said that there is no statistically significant difference between public and private schools in this measure. The difference by school type is given in Table 9.

Table 9. Mann-Whitney U results (School Type – Public/Private)

	Online Self Mean Score	F2F Mean Score
Mann-Whitney U	5104.000	4692.500
Wilcoxon W	7519.000	16168.500
Z	-.241	-1.184
Asymp. Sig. (2-tailed)	.810	.236

As a result, there is no statistically significant difference between public and private schools in both measurements. This means that teachers' "Online Self Mean Score" and "F2F Mean Score" are similar by school type.

4.1.1.3. The effect of teaching experience on self-efficacy beliefs

This section of the research examines the disparities in self-efficacy levels between English teachers with differing experience levels in school systems. Based on their years of experience, the teachers were divided into four groups: 0-5 years, 6-10 years, 11-20 years and more. The effect of teaching experience is presented in Table 10.

Table 10. Kruskal-Wallis H Test Ranking Average Table (Experience)

	Ranks		
	Teaching experience	N	Mean Rank
F2F Mean Score	0-5 years	58	128.32
	6-10 years	80	108.80
	11-20 years	68	97.18
	20+ years	14	111.11

	Total	220	
Online Self Mean Score	0-5 years	58	94.72
	6-10 years	80	105.74
	11-20 years	68	126.22
	20+ years	14	126.71
	Total	220	

The P-value (0.054) is very close to the generally accepted level of significance of 0.05. Therefore, whether there is a statistically significant difference between the groups is vague. Looking at the effect size provides more information, as the p-value obtained for the "F2F Mean Score" measurement is borderline at .054. The effect size (η^2 value) was calculated to be approximately .0345, indicating that the effect is limited. With these results, in the "F2F Mean Score" it can be said that there is a statistically borderline difference between the groups in terms of teaching experience and the size of this difference is limited. Also, no significant differences were observed between the groups.

Therefore, it should be noted that there may be a borderline difference, but technically, as a result of the analysis of the outliers in the data set and the effect size evaluation, the differences between the subgroups (0-5 years, 6-10 years, etc.) are not statistically significant between the groups, since the p value is greater than 0.05. It can be noted that there is no difference. The difference by teaching experience is given in Table 11.

Table 11. Kruskal-Wallis H Test (Experience)

	F2F Mean Score	Online Self Mean Score
Kruskal-Wallis H	7.629	9.070
Df	3	3
Asymp. Sig.	.054	.028

Since the P-value (0.028) is less than 0.05, it can be said that there is a statistically significant difference between the groups depending on teaching experience in this measure. The effect size (η^2) for "Online Self Mean Score" was calculated as approximately 0.0410. This indicates that the effect size is limited. As a result, there is a statistically significant difference between the groups in terms of teaching experience in the "Online Self Mean Score" measurement. However, there was no statistically

significant difference between the groups in the "F2F Mean Score" measurement. This means that teachers' online education self-assessment scores differ according to their teaching experience, but there is no such difference in face-to-face education. Further analysis of teaching experience is given in Table 12.

Table 12. Dunn's Test (Experience)

Sample 1-Sample 2	Pairwise Comparisons of Teaching experience			Sig.	Adj. Sig. ^a
	Test Statistic	Std. Error	Std. Test Statistic		
0-5 years-6-10 years	-11.013	10.976	-1.003	.316	1.000
0-5 years-11-20 years	-31.496	11.375	-2.769	.006	.034
0-5 years-20+ years	-31.990	18.951	-1.688	.091	.548
6-10 years-11-20 years	-20.483	10.497	-1.951	.051	.306
6-10 years-20+ years	-20.977	18.437	-1.138	.255	1.000
11-20 years-20+ years	-.494	18.678	-.026	.979	1.000

In the first pairwise comparison (0-5 years and 6-10 years), it can be noted that there is no statistically significant difference between these two groups, since the p-value (0.316) is greater than 0.05. This result did not change after Bonferroni correction. In the second pairwise comparison (0-5 years and 11-20 years), it can be noted that there is a statistically significant difference between these two groups, since the p-value (0.006) is less than 0.05. This result did not change as the adjusted p-value (0.034) obtained after Bonferroni correction was still less than 0.05. It can be noted that there is no statistically significant difference between these groups, since p-values are greater than 0.05 in the third pairwise comparison (0-5 years and 20+ years) and in other comparisons. As a result, (0-5 years) group teachers noted lower self-efficacy than (11-20 years) and (20+ years). The results suggest that teaching experience might be a minor factor in teacher self-efficacy in online settings.

4.1.2. Findings of the Research Question 2

The second research question sought for the relationship between self-efficacy beliefs of English language teachers between face-to-face and online teaching settings. There is a very weak negative relationship between "F2F Self-efficacy" and "Online Self-efficacy," and this relationship is not statistically significant. The relationship between face-to-face and online teaching settings is presented in Table 13.

Table 13. Spearman's rho correlation between participants F2F self-efficacy and online self-efficacy scores

			F2F self-efficacy	Online self-efficacy
Spearman's rho	F2F self-efficacy	Correlation Coefficient	1.000	-.030
		Sig. (2-tailed)	.	.660
		N	220	220
	Online self- efficacy	Correlation Coefficient	-.030	1.000
		Sig. (2-tailed)	.660	.
		N	220	220

Overall, the findings of the quantitative phase of the study revealed that, self-efficacy beliefs of English language teachers have indicated high self-efficacy beliefs in face-to-face education while they have shown moderate self-efficacy beliefs in online education. The study found no significant relationship between self-efficacy beliefs of English language teachers in terms of face-to-face and online education. The study also revealed no statistically significant difference in terms of gender and school type variables. However, the study found significant difference between novice and experienced teachers in online education. For face-to-face education, no significant difference was found in terms of teaching experience.

4. 2. Qualitative Research Findings

Investigation of self-efficacy beliefs of English language teachers in face-to-face and online education is a complex topic that merits qualitative research. This study utilized semi-structured interviews to investigate the self-efficacy beliefs of English language teachers in both instructional settings. This study aimed to provide in-depth insights into the factors influencing English language teachers' self-efficacy beliefs in face-to-face and online teaching environments. The demographic information of the participants regarding their teaching grades is presented in Figure 2.

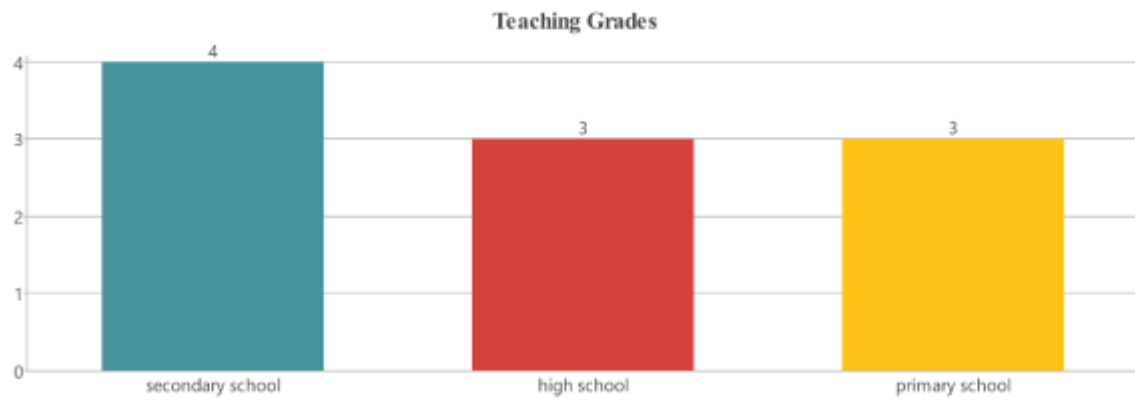


Figure 2. Teaching grades

40% of the participants work in secondary schools while 30% of them work in primary and 30% of them work in high schools. The demographic information of the participants regarding their ages is presented in Figure 3.

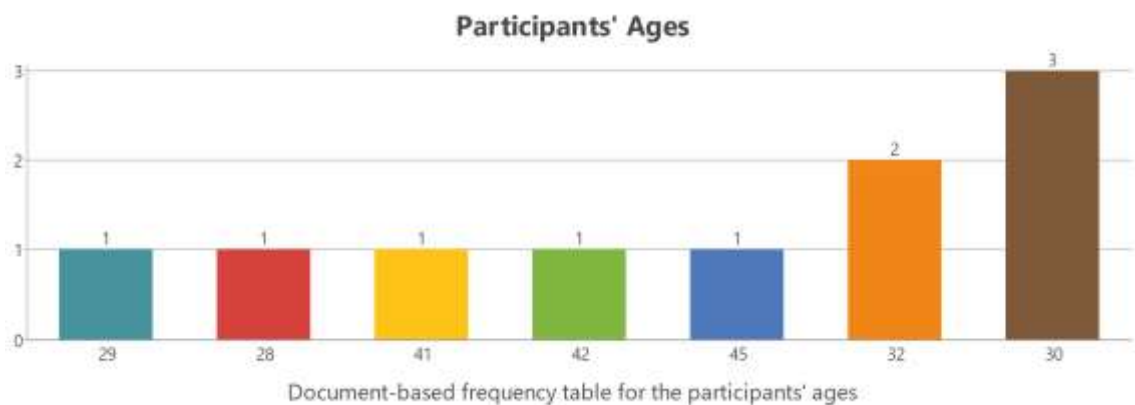


Figure 3. Age range of the participants

It is seen that their age ranged from 28 to 45. 30% of the participants were 30 years old, 20% of them were 32 years old. The demographic information of the participants regarding the department they graduated is presented in Figure 4.

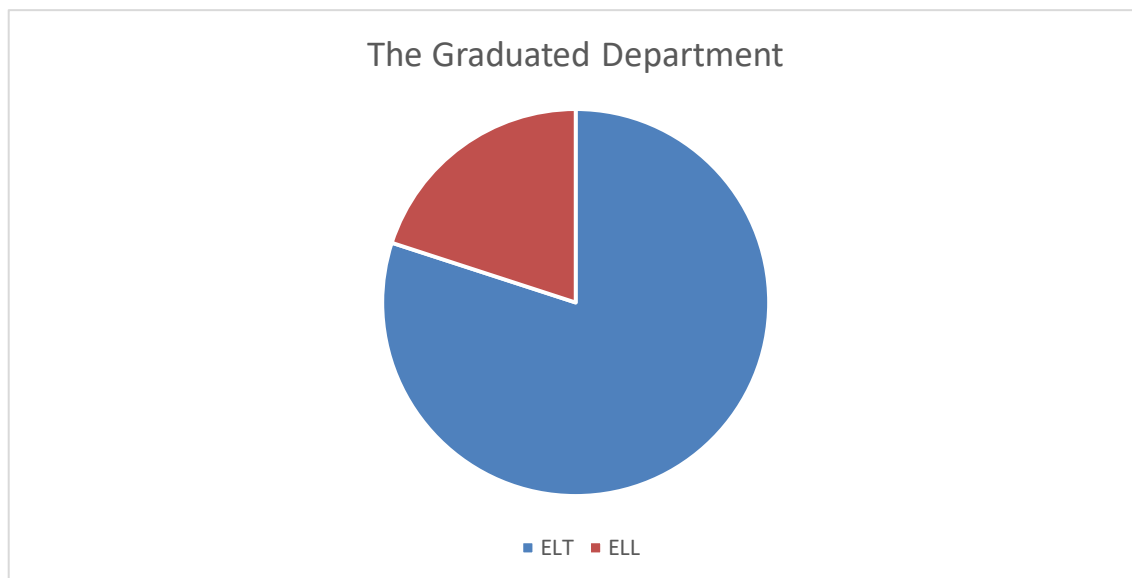


Figure 4. The Graduated Department

80% of the participants graduated from English Language Teaching, while 20% of them had a diploma from English Language and Literature Department.

The semi-structured interview consists of eleven questions under two sections: "face-to-face education" and "online education." The themes of the semi-structured interview were determined: Planning, Classroom Management, Motivation, Assessment and Classroom Climate for face-to-face education, and Planning, Classroom Management, Motivation, Assessment, Classroom Climate and Technical Issues for online education. The semi-structured interview contains questions intended to elicit insightful responses from respondents about their experiences, views, approaches, and difficulties with in-person and online learning. These inquiries seek to provide a thorough knowledge of many facets of instruction and learning in diverse circumstances.

The questions pertaining to face-to-face education examine the pre-class preparations, attitudes toward managing the classroom, motivational tactics for students, language development assessment procedures, and attempts to maintain a pleasant classroom environment. These investigations aim to learn more about the participants' pre-class routines, understanding of efficient classroom management techniques, methods for encouraging student engagement and enthusiasm, methods for assessing language development, and tactics for fostering a supportive and positive learning environment.

The questions pertaining to online education, on the other hand, center on the preparations made prior to online education, beliefs about achieving classroom management in the online context, strengths and weaknesses in online classroom management, strategies for energizing students in the online setting, assessment techniques used to assess language development, and methods to deal with technical issues during online classes. The purpose of these questions is to learn more about the participants' readiness for online instruction, understanding of the difficulties of managing an online classroom, self-reflection on their strengths and weaknesses in the online context, strategies for sustaining student motivation and engagement in the virtual environment, adaptation of assessment practices to online settings, and problem-solving abilities when faced with technical difficulties.

4.2.1. Findings of the research question 3

The third question was related to English language teachers' perceiving the advantages and disadvantages of the face-to-face and online education and relation of these results to their self-efficacy beliefs. In accordance with the third research question, teachers identified different advantages and disadvantages for each teaching mode.

4.2.1.1. Face-to-face education

The interview attempts to give a thorough and complete knowledge of participants' behaviors, views, and experiences in in-person and online teaching by posing these questions. The comments may provide insightful information on practical instructional tactics, difficulties encountered in various teaching settings, and modifications made to teaching methods to accommodate learners of various backgrounds. This data may be used to improve teaching methods, professional development initiatives, and overall educational quality in traditional and online classrooms. Advantages or disadvantages of teaching media align closely with the concept of teacher self-efficacy. Teachers with high self-efficacy are better equipped to capitalize on the benefits of in-person interactions, creating a dynamic and effective learning environment that fosters student engagement, motivation, and achievement. However, teachers who possess strong self-efficacy beliefs are more likely to proactively address challenges, implement effective instructional strategies, and create a positive and engaging classroom environment that maximizes the

benefits of in-person interactions while minimizing potential drawbacks (Bandura et al., 1999). Teachers' perceptions regarding face-to-face education are presented in Table 14.

Table 14. Teachers' perceptions towards the advantages and disadvantages of face-to-face education

Themes	Codes	<i>f</i>
Disadvantages	Have problems in managing crowded classroom	2
	Have difficulties in time management issues	1
	Handle aggressive students	1
	Handle activities disturbing class	1
Advantages	Plan and organization before class	1
	Use of technology	1
	Have good communication with students	1
	Express my expectations	1
	Ensure student focus	1
	Have good relationship with students	1

With respect to advantages and disadvantages of face-to-face education, recognizing the value of developing solid teacher-student connections is one similar message that emerges from the responses. Building strong relationships with students is essential in face-to-face education. This entails being accessible, mentoring or advising, and fostering a favorable learning atmosphere. The focus on good relationships reflects a common understanding of how ties between teachers and students affect classroom dynamics.

Recognizing the difficulties in face-to-face education, especially in packed classes or with specific age groups, is another frequent feature. Participants speak about managing more extensive courses and draw attention to the obstacles that arise while dealing with teens or kids going through a transitional period. Time management is also a possible flaw that can impair classroom management. These common problems show an understanding of the context-specific dynamics that may affect the efficiency of face-to-face education. The findings regarding face-to-face education are presented in Table 15.

Table 15. Findings of the semi-structured interview related to face-to-face education

Themes	Codes	<i>f</i>
Planning	Prepare visuals and interactive materials	2
	Use smartboard	1
	Prepare lesson plan	1
	Determine students' outcomes	1
	Boost my motivation	1
	Use warm-up activities	1
	Prepare outlines and handouts	1
	Identify the learning objective	1
	Design language skill activities	1

	Think about examples	1
	Prepare videos and songs	1
	Prepare flash cards	1
	Use ready-made PPT	1
	Check daily plan	1
	Decide what to do	1
Classroom management	Build good relationship with students	2
	Manage classroom management	2
	Believe mostly I manage	2
	Try to control distractions	1
	Absolute management is impossible	1
	Persuade students	1
	Depend on class grade	1
	Use eye contact and non-verbal communication	1
	Tolerate students	1
Motivation	Encourage them	2
	Say subjects that are not so difficult	1
	Get to know the students first	1
	Feel them safe and secure	1
	Don't make them uncomfortable	1
	Provide opportunities for success	1
	Tell them to know English is useful	1
	Tell necessities of knowing a different language	1
	Suggest using social media	1
	Tell them success stories	1
Assessment	Prepare written exams	2
	Apply word quiz	2
	Create assignment for individuals and groups	1
	Use debate activities	1
	Use multiple choice questions	1
	Utilize oral performances and written assessments	1
	Prepare speaking activities	1
	Match, test and fill	1
	Prepare exams based on writing, listening, grammar and comprehension	1
	Use formative and summative assessments	1
Classroom Climate	Use activities	6
	Build good relationship with students	2
	Support positive peer relationship	2
	Maintain positive climate	1
	Use social media language	1
	Praise effort and hard work	1
	Promote supportive classroom environment	1

4.2.1.1. Planning

The results indicate that teachers use a variety of planning strategies to improve their teaching practices and ensure effective classroom management. Some teachers reported using visual and interactive materials, including flashcards, activities, and engaging music videos, to keep students engaged and active during class. Teachers also mentioned

producing outlines, handouts, and lesson plans to guide their instruction and identify learning objectives.

Participant quotations further support these findings. One participant, for example, stated, *"I examine the topic or reading paragraph. I consider queries to spark discussion in class. I establish the learning objectives"* (P5). This quote illustrates a methodical planning procedure in which the teacher considers the lesson's content and objectives when designing engaging activities. Another participant stated, *"I frequently use smart boards, so I verify my textbook applications prior to each instruction. I occasionally distribute worksheets and exams. If the topic lends itself to role play, I seek out activities that incorporate it"* (P9). This quotation emphasizes the use of technology and a variety of instructional materials to engage pupils and facilitate their learning.

In addition, some teachers emphasized the significance of factoring in students' levels, the classroom environment, and the time of day when planning their lessons. One participant stated, *"It depends on the classroom, the level of the students, and the time of day. If the class is held in the morning, I have prepared some warm-up exercises. The caliber of students is also crucial. For pupils at the B1 or B2 level, I prepare speaking-focused activities"* (P8). This quotation suggests that teachers customize their lesson plans to suit the requirements and preferences of their students, thereby boosting their motivation and engagement.

In conclusion, the findings from the "Planning" theme emphasize the cautious and deliberate approach teachers take when preparing for face-to-face instruction. Teachers use a variety of techniques, such as visual aids, interactive materials, technology, and differentiated activities, to create engaging and effective learning environments for their students. The insights of the participants illuminate the significance of well-organized and deliberate planning in fostering positive classroom climates and effective face-to-face education.

4.2.1.2 Classroom management

The findings reveal that the participants had diverse views on classroom management, with some expressing confidence in their ability to manage the classroom effectively, while others acknowledged certain challenges. Overall, the participants highlighted the importance of building strong teacher-student relationships and creating a conducive environment to achieve successful classroom management.

One participant emphasized the significance of teacher-student relationships, stating, *"Classroom management is based on teacher-student relationship to a great extent. If I could manage building good relationship with the students, I don't have so much difficulty in managing classroom management"* (P2). This quote indicates that establishing positive connections with students plays a vital role in effective classroom management. Another participant echoed a similar sentiment, stating, *"In classroom management, my strengths: I build good relationship with the students and provide a conducive environment. Also, I persuade the students and motivate them to excel in their academics"* (P5). This quote further emphasizes the importance of fostering positive relationships with students to create a supportive learning environment.

However, some participants acknowledged the challenges in achieving absolute classroom management, noting, *"Absolute management is impossible. Soon or later, there will be some distractions. I try to control this kind of distractions"* (P7). This quote highlights the complexities of managing a classroom and the need for flexibility and adaptability to handle various disruptions. Another participant expressed difficulty in managing classroom behavior with older students, stating, *"It depends on their grades. For example, 5th-grade students are really active and eager to learn. I can control them because they have just left the primary school. But sometimes it is hard to achieve classroom management in 8th grades"* (P9). This quote indicates that different age groups of students may require different approaches to classroom management.

In summary, the findings on the theme of "Classroom Management" suggest that building strong teacher-student relationships and creating a conducive learning environment are crucial factors in achieving effective classroom management in face-to-face education. The participants' insights shed light on the challenges and strengths of managing a

classroom and offer valuable perspectives for educators seeking to enhance their classroom management skills.

4.2.1.3. Motivation

The participants highlighted various strategies they use to motivate their students in the face-to-face learning environment. The quotes from participants support the importance of motivation in face-to-face education. One participant emphasized the importance of providing opportunities for success to students, stating, *"I provide opportunities for success. All students get a chance to play to their strengths and valued"* (P5). This quote suggests that face-to-face education allows teachers to design learning experiences that cater to individual student strengths and interests, which can boost their motivation to engage with the subject matter. One participant highlighted the significance of creating a safe and enjoyable learning environment, stating, *"I do not make them feel uncomfortable. Feeling safe is the key to success. If they feel secure, they will enjoy themselves during classes. Joyful activities enable learners to have fun. Having fun brings academic success. It is all about letting them enjoy"* (P7). This quote underscores the importance of fostering a positive and supportive classroom climate where students feel at ease, enabling them to be more engaged and motivated in their learning.

Furthermore, one participant mentioned using positive reinforcement and emphasizing the attainability of the subjects, stating, *"I motivate them by saying that the subjects are not too difficult, and they are necessary for their next years. I say that when they are eager to learn everything will be easy. I try to give positive reinforcements rather than negative sentences"* (P9). This quote indicates that face-to-face education allows teachers to provide direct encouragement and feedback to students, reinforcing their belief in their abilities and boosting their motivation to succeed.

Overall, the findings on the theme of motivation suggest that face-to-face education offers several advantages that contribute to student motivation. These advantages include providing personalized support and feedback, creating a positive and enjoyable learning environment, and tailoring learning experiences to meet individual student needs and interests. These aspects of face-to-face education can play a significant role in enhancing student motivation and promoting active engagement in the learning process.

4.2.1.4. Assessment

The participants shared their approaches to assessing students' language proficiency and skills. The quotes from participants provide insights into the advantages and disadvantages of face-to-face education on assessment. One participant mentioned using speaking activities and quizzes at the end of each unit for assessment, stating, *"I use speaking activities for communication and also make quizzes at the end of every unit"* (P5). Face-to-face education allows teachers to conduct interactive speaking activities that assess students' communication skills effectively. Additionally, quizzes can be administered in real-time, providing immediate feedback to students and enabling teachers to gauge their progress continuously. Another participant highlighted using various assessment methods for different language skills, stating, *"For grammar, I use multiple-choice tests. For reading, reading aloud. For listening and speaking, I use debate activities. To assess writing development, I give them writing exercises"* (P7). In face-to-face education, teachers can utilize a diverse range of assessment techniques to evaluate students' language proficiency comprehensively. Direct interactions and activities like debate exercises allow for a more nuanced evaluation of listening and speaking skills. Furthermore, one participant emphasized the integration of various language activities in the classroom to contribute to students' language development, stating, *"Except for written exams, I often apply word quizzes. I try to contribute to their language development by reading, listening, playing games, and sometimes watching movies in the classroom"* (P9). In face-to-face education, teachers can use authentic materials like movies and games to assess students' language abilities while engaging them in enjoyable learning experiences.

Overall, the findings on the theme of assessment suggest that face-to-face education provides opportunities for interactive and personalized language assessment, allowing teachers to implement diverse assessment methods and provide timely feedback to students. However, it also requires managing potential time constraints and ensuring fair and consistent grading practices.

4.2.1.5. Classroom climate

The participants shared their strategies for building good relationships with students, promoting positive peer interactions, and using various activities to maintain a positive classroom climate. The quotes from participants provide insights into the advantages and disadvantages of face-to-face education on classroom climate. One participant emphasized the use of various language-related assessment tools and games to prevent monotony in the classroom, stating, *"I try to diversify my activities and prevent the monotonous flow of classes with games and various other language-related assessment tools like Kahoot, Quizlet, Wordwall"* (P4). Face-to-face education allows teachers to incorporate interactive games and technology-based tools to engage students and make the learning environment more dynamic and enjoyable.

Another participant highlighted the importance of finding common interests with learners and using social media language to facilitate a positive classroom climate, stating, *"I observe trends that learners are interested in. Sometimes, using social media language lets you facilitate a positive classroom climate"* (P7). In face-to-face education, teachers can adapt their teaching approaches to align with students' interests, enhancing student engagement and promoting a positive atmosphere in the classroom. Moreover, one participant stressed the significance of creating situations where students can learn while having fun, using competitions, songs, and games to keep their attention alive, stating, *"I try to create situations where they can learn while having fun. So, I keep their attention alive with some competitions, songs, and games"* (P9). Face-to-face education allows teachers to incorporate interactive and enjoyable activities that foster a positive learning atmosphere and enhance students' motivation to participate actively in the learning process.

Advantages of face-to-face education on classroom climate could be summarized as:

- Personal connections: Face-to-face education allows teachers to build strong relationships with students, fostering a sense of belonging and trust within the classroom.
- Active engagement: Teachers can utilize interactive activities, games, and competitions to keep students engaged and excited about learning.

- Real-time feedback: In face-to-face settings, teachers can provide immediate feedback and support, addressing students' needs and concerns promptly.

Disadvantages of face-to-face education on classroom climate could be summarized as:

- Classroom management challenges: In larger classes, maintaining a positive classroom climate for all students may pose challenges in terms of individual attention and interaction.
- Potential distractions: Face-to-face education may be susceptible to external distractions that can impact the learning environment.
- Diversity of student preferences: Creating a positive classroom climate may require tailoring activities to suit the diverse preferences and learning styles of students.

The findings on the theme of Classroom Climate suggest that face-to-face education offers opportunities for building strong teacher-student relationships, promoting positive peer interactions, and incorporating interactive and enjoyable activities that enhance the classroom climate. However, it might require effective classroom management and adaptation to individual student needs and preferences.

Overall, the participants' responses indicate that face-to-face education provides several advantages across different themes. These advantages include the ability to utilize interactive materials, build strong relationships with students, offer a supportive learning environment, and use various assessment methods to track students' progress effectively. While some challenges, such as managing crowded classrooms or dealing with aggressive students, were mentioned as potential disadvantages, the consensus from the participants' answers is that the benefits of face-to-face education outweigh these drawbacks. Face-to-face education allows for more personalized interactions, immediate feedback, and a dynamic learning atmosphere, contributing to better student engagement and motivation. It is important to note that the advantages and disadvantages of face-to-face education may vary based on individual teaching styles, classroom settings, and student demographics. However, the participants' feedback collectively indicates a preference for face-to-face education due to its positive impact on various aspects of the teaching and learning experience.

4.2.1.2. Online education

The online education part of the semi-structured interview was designed to explore five key themes: planning, classroom management, motivation, assessment, and technical issues. The purpose of this data analysis section is to present a comprehensive and academic overview of the participants' perspectives on teacher self-efficacy within these themes. By examining their responses, it is aimed to gain insights into the factors that influence teacher self-efficacy in the online context, the strategies employed to address challenges, and the overall impact of these perceptions on the effectiveness of online education. Teachers' perceptions regarding online education are presented in Table 16.

Table 16. Teachers' perceptions towards the advantages and disadvantages of online education

Themes	Codes	<i>f</i>
Disadvantages	Face lack of organizations	1
	Face connectivity issues	1
	Have difficulty in control students	1
	Have difficulty in manage large group	1
	Cannot motivate the students	1
	Draw their attention	1
	Focus on the class	1
	Not turning on microphones	1
	Behave unethically	1
Advantages	Use digital tools and technology	1
	Mute the students	1

Findings of the qualitative research indicated that, teachers generally focus on disadvantages of online education rather than advantages of it. Teachers especially noted that, they had difficulty in drawing attention of the students. The findings regarding online education are presented in Table 17.

Table 17. Findings of the semi-structured interview related to online education

Themes	Codes	<i>f</i>
Planning	Prepare visual materials	3
	Prepare PPT	2
	Design hard engaging lessons	1
	Check my PC and connections	1
	Schedule lesson plan	1
	Provide necessary supplies	1
	Download documents via applications	1
	Have challenge for planning lessons	1
	Use EBA Platform for assignments	1
	Plan online activities and games	1
Classroom management	Could not manage	6

	Not open their cameras	3
	Believe I can manage	2
	Think a bit hard	1
	Feel like speaking to walls	1
	To be absent in front of their PC	1
Motivation	Could not motivate	1
	Use various competitions	1
	Keep students' attention alive	1
	Introduce rewards and recognition	1
	Persuade digital learning	1
	Utilize learning tools and apps	1
	Congratulate and clap students	1
	Prepare material that interest them	1
	Use effective encouragement	1
	Use interactive activities	1
	Provide meaningful feedback	1
Assessment	Utilize software to perform assessments	2
	Use online quizzes	2
	Use Multiple Choice Questions	1
	Enhance Loud readings	1
	Promote students' oral participation	1
	Use verbal assessment	1
	Use gap-filling and matching	1
	Prepare list of interested students	1
	Prepare writing exercise	1
	Prepare online exams	1
Technical issues	Handle myself	1
	Try to take precautions	1
	Change online teaching platform	1
	Get help from IT department	1
	To be good at technology	1
	Send them links	1
	Call students' family to help them	1
	Call my assistant principle	1
	Use a different browser	1
	Wait	1

4.2.2.1. Planning

The planning theme in online education is a critical aspect that shapes the overall teaching and learning process. Participants (P4) and (P8) provided valuable insights into their planning approaches during the online education experience. One participant highlighted the challenges faced during the pandemic, particularly the low attendance and the need to engage students of different levels of English. They stated,

"During the pandemic, my teaching context was middle school. I used to try hard to design engaging lessons with lots of interaction in them. However, the fact that classes were unobliged to attend hindered regular attendance. There were few students in most of my classes, which was one of the biggest challenges

for me while planning my lessons. That's why, I had prepared several alternatives to engage students of different levels of English. I would choose as much interactive online activities as I could. Besides, I used EBA platform for assignments. Yet, not having been graded, most of the students did not complete assignments, which made me do activities mostly in the class hour" (P4).

On the other hand, one participant emphasized a meticulous and organized planning process. They mentioned, *"To begin with I schedule my lesson and plan my lesson in detail. Moreover, I search for online resources and visual aids to choose the best sources that fit my students' needs and language proficiency" (P8).* These quotations shed light on the varying experiences and strategies in planning during online education. While one participant faced challenges related to low attendance and engagement, another took a proactive approach in scheduling, detailed planning, and resource selection to cater to their students' needs effectively.

In summary, planning in online education is essential for creating engaging and effective learning experiences. Participants' insights reveal the importance of adaptability, creativity, and organization in designing online lessons that address individual student needs and maximize student participation.

4.2.2.2. Classroom Management

The classroom management theme in online education emerged as a significant concern among the participants, with varying perspectives on its effectiveness. Participants expressed doubts about achieving effective classroom management during online classes. One participant mentioned, *"I mostly believe that I could manage classroom management during the online class. 'Mute them all' is a good option for students who cause trouble. Yet, it is really hard to achieve class management during an online class" (P2).* On the other hand, another participant stated, *"Unfortunately, I could not. Some learners do not attend. Even if they attend the class, they may turn their camera off or do not talk. I do not even know that they are online or not. How can I achieve? There is no classroom management if there is no classroom. Online classes are not actual classes" (P7).* In contrast to most of the participants, to participants expressed some confidence in their ability to manage classroom management during online education. One of them stated,

"Yes, I do" (P6) while the other said, "Yes, I do. But it is a bit hard when we compare it with face-to-face education" (P9). Another participant highlighted the challenges posed by the absence of forced attendance and students not turning on their cameras and mics, stating, "To achieve absolute classroom management, attendance should be mandatory and students' cameras should be on. I do not believe that I could achieve it in online classes" (P4).

Overall, the participants' responses indicate that achieving effective classroom management in online education is a complex and challenging task. While some teachers expressed confidence in their ability to manage the online class, others highlighted difficulties with low attendance, lack of student engagement, and the absence of visual cues. These insights suggest that addressing classroom management challenges in the online learning environment requires innovative strategies and technological support.

4.2.2.3. Motivation

Participants expressed difficulties in motivating students during online sessions. One participant mentioned, "It is hard to motivate the kids who only sit before the pc or mobile phones"(P2). Another participant added, "I couldn't motivate them adequately. I managed to motivate only some 8th graders due to the standardized examination (LGS)" (P4). One participant emphasized the challenges faced by both students and teachers, stating, "Digital learning, teaching, or classes are not good for young learners and teenagers. As a grown-up, I sometimes could not motivate myself. How are the learners supposed to be motivated during the online session?" (P7). In contrast, other participants shared various strategies they employed to maintain student motivation. One participant stated "I try to prepare materials that interest them and I tell them 'we will play games at the end of the lesson if you listen well'" (P1). One participant highlighted the use of positive reinforcement, stating, "I congratulate them and I send symbols like clapping or heart" (P5). One participant mentioned the use of learning tools and apps, while another participant emphasized the importance of rewards and recognition for active participation. Additionally, one participant stressed the use of interactive activities and competitions like Kahoot and Quizzes to keep students engaged.

Overall, the participants' responses indicate that motivation in online education can be challenging, especially for certain age groups. Teachers employ various techniques, such as positive reinforcement, interactive activities, and rewards, to maintain student engagement and focus during online sessions. However, the unique nature of online learning presents its own set of hurdles in fostering motivation among students. These findings emphasize the importance of creative and adaptive strategies to sustain student motivation and involvement in the online learning environment.

4.2.2.4. Assessment

The theme of assessment in online education highlights the varied approaches employed by teachers to evaluate students' learning progress. Participants emphasized the use of technology and online software programs for assessment. Two participants mentioned, *"I use online software programs to perform the assessment"* (P2) and (P8), which includes online spreadsheets, test-making software, and applications. Another participant elaborated on the use of specific online tools like Kahoot and Quizlet for diagnostic assessment, and Canva or Postermywall for process evaluation through assignments. Additionally, some participants adopted more observational and oral assessment methods. One participant mentioned, *"I prepare a list of those interested in the class and add a plus to the students who attend and show interest"* (P3). One participant assessed students' oral participation in the lesson as a means of evaluation. Some participants emphasized the importance of verbal assessments and online exams. One participant stated, *"Since we do not have a chance to see their exam papers in online education, it is more logical to make verbal assessments. For this, I ask questions and try to evaluate it with pronunciation exercises"* (P9).

Overall, the participants' responses indicate that online assessment methods predominantly involve the use of technology and digital tools, such as online software programs and quizzes. However, some teachers also employ observation and oral assessments to gauge students' participation and progress. The shift to online education has necessitated creative and adaptive approaches to assessment, acknowledging the challenges and advantages it presents. Verbal assessments and online exams offer alternative means to evaluate students' learning in the absence of traditional paper-based exams. The integration of technology in assessment practices enhances flexibility and responsiveness in the online learning environment.

4.2.2.5. Technical Issues

The theme of technical issues in online education highlights the challenges teachers face in dealing with various technological problems during virtual teaching. Participants' responses demonstrate a range of experiences and approaches to addressing these technical challenges.

Advantages of online education in technical issues are evident in participants. One participant stated that, *"I hardly experience technical problems. Possibly, I can handle if I do any"* (P4). Another one also expressed confidence in their technology skills, stating, *"I consider myself to be good at technology, so I generally could find a way to handle the problem "* (P6). These responses highlight that teachers who possess strong technical knowledge and skills can navigate technical issues effectively, leading to a smoother online teaching experience.

On the other hand, the disadvantages of online education in technical issues are apparent from different responses. One participant mentioned, *"Sometimes the electricity and internet were cut off. Also, my students could not log in or did not want to log in"* (P5). One participant expressed limitations, stating, *"If there is a hardware error, I cannot do anything. I can get help from the IT department of the school"* (P7). Similarly, another participant conveyed frustration, *"It is a huge problem for me, especially internet connection. We just wait"* (P10). These responses demonstrate that technical issues, such as internet connectivity problems, hardware malfunctions, or power outages, can disrupt online classes and hinder effective teaching and learning.

In conclusion, while online education offers the advantage of convenience and flexibility, technical issues pose challenges for both teachers and students. Teachers with proficient technical skills can mitigate problems effectively, but technical limitations, such as connectivity issues and hardware failures, can negatively impact the online teaching experience. Addressing these technical challenges is crucial to ensuring a successful and seamless online learning environment. The findings revealed that participants perceived face-to-face education to have more advantages compared to online education. The themes identified in both settings shed light on the strengths and challenges associated with each mode of instruction. In face-to-face education, advantages were evident in themes such as classroom climate, motivation, and planning. Participants expressed the

benefits of building positive relationships with students, promoting peer interactions, and creating a supportive and engaging classroom environment. They also highlighted the advantages of using various teaching strategies, visuals, and interactive materials to enhance learning experiences.

On the other hand, online education showed some advantages, particularly in terms of flexibility and the use of technology for assessment and resources. Participants acknowledged the convenience of online platforms for delivering content, conducting assessments, and providing access to a wide range of digital resources. However, the advantages of face-to-face education appeared to outweigh those of online education according to the participants.

Regarding disadvantages, both settings faced challenges. In face-to-face education, managing large class sizes, time constraints, and disruptive student behavior were noted as disadvantages. In contrast, online education faced technical issues, reduced classroom management, and difficulties in maintaining student motivation and engagement. Relating the results to the research question, it can be inferred that the participants' more positive perceptions towards face-to-face education may be a contributing factor to their higher self-efficacy beliefs in this mode of instruction. The direct interactions and classroom dynamics in face-to-face settings may give teachers a stronger sense of control and confidence in managing their classrooms effectively. On the other hand, the challenges associated with online education, such as technical issues and reduced classroom management, may impact teachers' perceptions and self-efficacy beliefs in this mode of instruction.

Overall, the findings suggest that English language teachers in Türkiye view face-to-face education more favorably due to its advantages in classroom climate, motivation, and planning. These positive perceptions may influence teachers' self-efficacy beliefs, potentially contributing to a higher level of confidence and competence in delivering face-to-face instruction compared to online education. It is important for educators and policymakers to consider these perceptions and challenges when designing and implementing effective hybrid or online learning strategies to support teachers' professional development and student learning outcomes.

5. DISCUSSION

This study examined the self-efficacy beliefs and perceptions of English language teachers in Türkiye regarding face-to-face and online education and the relationship between their self-efficacy beliefs regarding each teaching mode. In addition, the study investigated how English language teachers perceive the advantages and disadvantages of face-to-face and online education and the relationship between these perceptions and their self-efficacy beliefs regarding each mode of education. In this chapter, the findings will be presented in accordance with each research question.

5.1. Discussion of the Research Question 1

Research question 1 explored the self-efficacy beliefs of English language teachers in Türkiye in online and face-to-face education settings and impact of different variables in these modes of education. The findings shed light on various aspects of teacher self-efficacy in different instructional modes. English language teachers in Türkiye have exhibited high self-efficacy beliefs in terms of face-to-face education. This finding aligns with previous studies conducted in Türkiye, which have shown that teachers are enthusiastic about face-to-face education despite encountering difficulties such as crowded classrooms, lack of technological resources, increased workload, and limited institutional support. This positive attitude towards face-to-face education highlights the importance of teacher student interaction (Balcı et al., 2019; Çankaya, 2018; Güngör & Yaylı, 2012, 2018; Meç et al. 2020; Merç, 2015; Özkara, 2019; Yıldırım, 2021). However, English language teachers working in Türkiye have exhibited moderate level self-efficacy beliefs in terms of online education. Similar to previous research emphasizing the significance of face-to-face interaction in developing teacher-student relationships and classroom community (Vekiri & Chronaki, 2008), the current study found that teachers' self-efficacy in face-to-face and online education also differ significantly. The most important result of the study suggests that English language teachers in Türkiye might perceive online education as a viable alternative to face-to-face instruction, even though it lacks direct interaction with students.

Moreover, the study revealed that there was no significant difference in self-efficacy beliefs between male and female English teachers in Türkiye for both face-to-face and

online education. These results align with existing research that examined the relationship between gender and teacher self-efficacy (Tschannen-Moran & Hoy, 2002; Gencer & Cakiroglu, 2007; Navnyko, 2015; Kavanoz et al., 2015; Yıldırım, 2021). The findings suggest that gender does not play a prominent role in shaping teachers' self-efficacy perceptions in different instructional modes. Both male and female teachers demonstrated similar self-efficacy ratings, particularly in handling technology-related challenges, which might be attributed to the closing gender gap in various aspects of life and work, including education. Akkoyunlu and Orhan (2003) also discovered no significant difference between male and female teachers' self-efficacy in Türkiye. Similarly, Sak (2015) discovered no significant difference between male and female teachers' self-efficacy on student engagement or instructional strategies in Türkiye. Other studies, however, have found gender differences in self-efficacy. For instance, Zheng et al. (2019) discovered that gender can play a role in self-efficacy beliefs of Chinese teachers. Brouwers and Tomic (2000) found in a separate study that male teachers in the Netherlands had greater self-efficacy than female teachers.

The study found no direct relationship between school type and teachers' self-efficacy beliefs. Public school teachers in Türkiye demonstrated similar self-efficacy beliefs compared to their counterparts in private schools, regardless of the instructional mode. This result contradicts with prior research (Skaalvik & Skaalvik, 2018) which found that school type can influence teachers' self-efficacy beliefs. This contradiction might be because of the support and resources provided by public schools. This study's findings contradict with previous research on the subject. For example, Tschannen-Moran and Woolfolk Hoy (2007) discovered that public school teachers reported higher self-efficacy than private school teachers. Similarly, Hameed et al. (2018) discovered that public school teachers had higher job satisfaction and self-efficacy levels than private school teachers. The disparity might stem from systematic differences in the work environment, job demands, and teaching resources of the countries. It is essential to note, the results of this study cannot be generalized to all English language teachers or all public and private institutions, as the sample was restricted to a particular geographical region and subject area. Further research must determine whether similar patterns exist across various subject areas and geographic regions.

Furthermore, the research uncovered that experience levels of EFL teachers significantly influenced their self-efficacy beliefs in online education. The study indicated that, novice teachers exhibited lower self-efficacy beliefs when compared to experienced teachers in terms of online education. The result supported some previous research (Tschannen-Moran & Hoy, 2007), which found that novice teachers exhibit lower self-efficacy in their teaching practices compared to experienced teachers. Similarly, Klassen and Chiu (2010) found that more experienced teachers were more confident in regulating student behavior and maintaining a positive classroom environment. The results suggested that regardless of their experience level, English teachers in Türkiye reported similar levels of self-efficacy in face-to-face education. Previous studies have produced similar findings. For instance, Brouwers and Tomic (2001) found that the relationship between years of experience and self-efficacy was moderated by personal and contextual factors, such as job stress and colleague support. Similarly, Klassen et al. (2011) discovered that the relationship between years of teaching experience and self-efficacy was nonlinear, with self-efficacy levels increasing during the first few years of teaching and then leveling off after a certain point. It is vital to note that its sample size and geographic region constrain this study's findings. Further research is needed to find similar results to these findings in other contexts and investigate the underlying factors that may contribute to differences in teacher self-efficacy based on years of experience. It is essential to consider that teacher self-efficacy is a multifaceted construct influenced by various factors, and the unique context of the Turkish education system might contribute to the observed outcomes. Another reason for this difference might be because of the fact that online education strategies are not included into teacher training programs in Türkiye. Thus, novice teachers might have felt their knowledge is insufficient for online education.

5.2. Discussion of the Research Question 2

The research question aimed to explore the relationship between English language teachers' self-efficacy beliefs regarding face-to-face and online education in Türkiye. However, the findings from the quantitative phase of the study revealed that there is no significant correlation between these two modes of instruction. This result contrasts with previous research that has demonstrated a positive correlation between teachers' self-efficacy beliefs in various educational contexts (Corry & Stella, 2018). The disparity in results may be attributed to the unique cultural and educational environment in Türkiye.

In a related study, English teachers in Türkiye reported neutral attitudes towards Emergency Remote Teaching (ERT), which was implemented during times of crisis like the pandemic. Teachers expressed neither overwhelmingly positive nor negative experiences with ERT. While they acknowledged technological issues and insufficient digital skills, they also believed that their experiences with ERT could contribute to their professional development as educators (Baroudi & Shaya, 2022). This highlights the resilience and willingness of English teachers in Türkiye to adapt to new teaching methods and continuously improve their instructional practices.

In conclusion, the research findings suggest that English language teachers in Türkiye hold high self-efficacy beliefs in both face-to-face and moderate self-efficacy beliefs in online education, despite the lack of a significant correlation between the two modes of instruction. The positive attitudes towards online learning and the adaptability of teachers during challenging times reflect their commitment to providing effective and engaging education. The study also highlights the need for further research to understand the factors that influence teachers' self-efficacy beliefs in different instructional settings, which can contribute to the enhancement of teacher training and professional development programs.

5.3. Discussion of the Research Question 3

The research question 3 aimed to explore how English teachers in Türkiye perceive the advantages and disadvantages of face-to-face and online education, and how these perceptions relate to their self-efficacy beliefs regarding each mode of education. The findings of the study revealed that teachers of English in Türkiye held diverse opinions about the benefits and drawbacks of face-to-face and online education. In face-to-face education, teachers valued the opportunities for direct interaction with students, the ability to develop relationships, and provide immediate feedback, which contributed to their positive perceptions of this mode of instruction. The physical presence of students in the classroom allowed teachers to engage in real-time interactions, non-verbal cues, and eye contact, which are essential components of effective communication and classroom management (Vekiri & Chronaki, 2008). These factors may contribute to teachers' positive perceptions and higher self-efficacy in face-to-face education. The positive perceptions of face-to-face education may have an impact on teachers' self-efficacy beliefs in this mode of instruction. Teachers' self-efficacy beliefs refer to their

confidence in their abilities to successfully carry out instructional tasks and engage students effectively (Bandura, 1977). When teachers hold positive perceptions of face-to-face education and feel more confident in their abilities to handle the challenges and demands of this mode of instruction, they are likely to have higher self-efficacy in face-to-face education.

On the other hand, online education was favored for its adaptability, accessibility, and ability to reach geographically dispersed students. Teachers appreciated the use of technology and digital tools to design interactive and engaging online lessons. This finding is in line with Gao and Zhang (2020) which states online learning sources are available and adaptable to a great extent. Teachers also became more aware of and confident in using a range of tools and materials, even in the early phases of emergency remote teaching (Albó et al., 2020). However, the teachers also pointed out challenges related to the preparation of online materials, classroom management, and providing timely feedback to students. The lack of direct interaction with students and the need for alternative teaching strategies in the virtual environment may affect teachers' self-efficacy and perceptions of online education. The challenges experienced in the online learning environment, such as technical issues, limited interaction, and difficulties in managing student engagement, may influence teachers' self-efficacy and contribute to their more reserved perceptions of online education. Teachers may feel less confident in their ability to manage online classes effectively and address the unique challenges associated with virtual instruction, resulting in lower self-efficacy in online education. Previous research had some supportive findings on drawbacks of online education in terms of teacher-student contact, assessment of students' learning progress, and educational inequity brought on by an imbalance in network device usage across different geographic locations, lack of suitable information technology literacy for online teaching, inadequate online learning environments for both teachers and pupils, and ineffective class administration inappropriate class management while teaching online (Gao & Zhang, 2020). Class management was more difficult during online teaching since the teacher and students were not physically in the same room as they are in traditional classroom settings. The instructor was unable to see the students in real time and provide timely feedback using non-verbal cues like eye contact. Ineffective classroom management may cause pupils to become disengaged and provide inadequate learning results (Gao & Zhang, *ibid*). The emergency scenario, exposed obstacles that limit instructors' capacity to deliver

online instruction, such as the digital gap among pupils and a lack of technological resources and assistance. Teachers might think about including blended learning activities in the classroom to better support and augment normal sessions once they are back in the face-to-face setting. In case another crisis arises in the future, having an online component in a conventional, face-to-face class should help the transition to totally online learning more smoothly (Bailey & Lee, 2020). Producing solutions that cover a wider range of issues is essential because, in emergency situations, caring for and supporting students is just as crucial as delivering material. In fact, what is taught today could be secondary significance. It must be remembered that learners would remember how they felt through these trying moments more than the instructional material that was presented to them (Bozkurt & Sharma, 2020).

It is essential to recognize that teachers' self-efficacy beliefs can significantly influence their instructional practices, motivation, and overall performance (Tschannen-Moran & Woolfolk Hoy, 2001). When teachers have higher self-efficacy, they are more likely to be proactive, persistent, and committed to implementing effective teaching strategies (Bandura, 1997). Therefore, the positive perceptions of face-to-face education and higher self-efficacy in this mode may lead teachers to invest more effort and enthusiasm in their face-to-face instructional practices. It is crucial to provide targeted professional development and support to enhance teachers' self-efficacy and promote the effectiveness of online education. Training programs that address the specific challenges and opportunities of online education can help teachers build their confidence and self-efficacy in virtual instruction. Moreover, acknowledging and addressing teachers' concerns and providing resources to enhance their technological skills and online pedagogy can contribute to more positive perceptions of online education and boost teachers' self-efficacy in this mode.

The qualitative analysis of the study revealed common themes related to preparation, classroom administration, student motivation, assessment, and dealing with technical issues in both face-to-face and online education. The findings suggested that teachers encountered unique challenges in online education, such as the need to effectively use technology, provide precise instructions, and ensure student engagement and participation. These results underline the significance of teacher preparation and training in online education, which aligns with previous research (Baran & Correia, 2014). The

study also highlighted the importance of building positive relationships with students in face-to-face education and employing technological tools to keep students engaged and motivated in online education. These findings further support the idea of adapting teaching strategies to the specific instructional setting, as emphasized by Ertmer and Ottenbreit-Leftwich (2010). In face-to-face education, teachers reported feeling more confident and self-efficacious, primarily due to the presence of direct interaction with students. Building positive relationships with students and using non-verbal communication cues were noted as crucial components of effective classroom management. These findings align with previous research (Vekiri & Chronaki, 2008) that emphasized the significance of face-to-face interaction in developing teacher-student relationships and a classroom community. The absence of direct interaction with pupils in online education may cause teachers to experience feelings of isolation and diminished self-efficacy, as noted by some participants. The challenge of managing student engagement and participation in the digital environment was a recurrent theme, with teachers employing various technological tools and interactive activities to keep students motivated.

Regarding assessment, teachers noted similar approaches in both face-to-face and online education, such as using multiple-choice tests for grammar, reading aloud for reading assessment, and writing exercises for assessing writing development. However, some teachers highlighted the limitation of online assessments due to the lack of visibility of students' work and the reliance on verbal assessments. These findings resonate with previous research (Castle & McGuire, 2010) that highlighted the difficulty of conducting traditional exams in an online setting, especially when it comes to evaluating written assignments. The study also revealed the use of digital tools like Kahoot and Quizlet for measuring learning results in both instructional modes. In terms of dealing with technical issues, teachers employed various coping mechanisms. Some preferred to develop their solutions and strategies, indicating a high level of teacher autonomy and resourcefulness in the digital environment. Others sought technical assistance from their school or colleagues, reflecting the importance of a supportive school environment in addressing technological challenges during online education. These findings are consistent with the significance of teacher autonomy and agency in online education as emphasized in previous research (Baran & Correia, 2014).

The themes that emerged from the interviews highlighted the importance of teacher preparation, student engagement, and technological competence in both instructional modes. The study's findings underscore the need for tailored professional development programs that address the specific needs and challenges of online education, equipping teachers with the necessary skills and resources to enhance their self-efficacy in this evolving educational landscape. Moreover, the study contributes to a better understanding of the factors that shape teacher self-efficacy beliefs and provides valuable implications for educational policymakers and administrators seeking to optimize the quality of both face-to-face and online education in Türkiye.

In conclusion, the research question shed light on the complex relationship between teachers' perceptions of face-to-face and online education and their self-efficacy beliefs. The findings indicated that teachers' positive perceptions towards face-to-face education can influence their self-efficacy and may be a reason why teachers have higher self-efficacy in face-to-face education than online education. Understanding these perceptions and their impact on teachers' self-efficacy is vital for designing effective professional development programs and support systems that can enhance the quality of both face-to-face and online instruction in English language teaching in Türkiye.

6. CONCLUSION

The research investigated the self-efficacy beliefs and perceptions of English language teachers who work in Türkiye, regarding face-to-face and online education. Three research questions were explored to gain insights into the teachers' beliefs and perceptions. The general findings of the study revealed valuable information about the advantages and disadvantages of both instructional settings and their implications for teachers' self-efficacy. The study found that there was no relationship between teachers' self-efficacy beliefs in face-to-face and online education. This indicates that teachers may view their abilities differently in these two modes of instruction. The participants generally reported high self-efficacy beliefs in face-to-face education, while they performed moderate self-efficacy beliefs in online education. The factors contributing to their confidence differed between face-to-face and online education. Considering this finding, the study's first phase included an online scale. The second phase, which involved semi-structured interviews, focused on volunteer participants' thoughts on their self-efficacy beliefs on face-to-face and online education.

The quantitative phase of the study revealed that, Turkish EFL teachers generally possess high level self-efficacy beliefs in face-to-face education. The result corroborates many studies (Baykara, 2011; Chacon, 2005; Doğan, 2020; Esen, 2012; Eslami & Fatahi, 2008; İlgör, 2019; Kaygısız et al., 2018; Tunç-Yüksel, 2010). The research has also shown that, there is no significant difference between the self-efficacy beliefs of English teachers in terms of gender and school type. However, years of teaching experience has been revealed to be an effective variable in online education. Novice teachers performed lower self-efficacy beliefs than experienced teachers in terms of online education. The study revealed that teachers held more positive perceptions and higher self-efficacy beliefs towards face-to-face education compared to online education. Face-to-face instruction was valued for its direct interaction with students, immediate feedback, and the ability to foster strong teacher-student relationships. On the other hand, online education was appreciated for its flexibility and accessibility but was also associated with challenges in terms of classroom management and student engagement. The findings suggest that teachers' positive perceptions towards face-to-face education could influence their self-efficacy in this mode of instruction. As a result, they might feel more confident and

motivated in face-to-face teaching practices. In contrast, the challenges experienced in online education might contribute to teachers' lower self-efficacy in this mode, leading to more reserved perceptions of online instruction. The qualitative phase of the study has revealed “Planning, Classroom Management, Assessment, Classroom Climate and Motivation” themes for each medium of education. For online teaching, “Technical Issues” theme was also revealed. While EFL teachers mostly appreciated face-to-face education in terms of “Classroom Management” and “Motivation” themes, they noted that, they did not have difficulty in “Planning”, and “Motivation” themes in online education. It could be seen clearly that traditional classroom instruction was more preferable to online instruction among EFL teachers. These favorable opinions of face-to-face instruction may have an effect on instructors' evaluations of their own efficacy in this type of instruction. Teachers' self-efficacy beliefs are their convictions that they can effectively engage pupils and carry out instructional duties. Teachers are more likely to have stronger self-efficacy in face-to-face instruction when they have favorable opinions of this method of instruction and are more assured in their capacity to meet its demands. As a result, qualitative and quantitative research findings are in line with each other, which contributes to validity of the research.

Limitations of the study should be acknowledged. The research was conducted in a specific context in Türkiye, and the results may not be generalizable to other countries or educational systems. The small sample size of the qualitative phase of the study might limit the scope and depth of the findings. Future research should aim to include a larger and more diverse sample to enhance the study's generalizability.

In conclusion, this study provided valuable insights into the self-efficacy beliefs and perceptions of English teachers in Türkiye regarding face-to-face and online education. The findings highlight the importance of understanding teachers' perceptions and their impact on self-efficacy. By addressing the challenges and providing support for teachers in both instructional settings, educational institutions can foster a positive and effective learning environment for students and teachers alike.

This study's findings have significant implications for teacher training, professional development programs, and policies and practices related to school funding and resource allocation. To increase the self-efficacy and job satisfaction of private school teachers,

schools and districts may need to consider providing additional resources and support. For example, since English language teachers have performed moderate level self-efficacy beliefs in terms of online education, online teaching classes could be included into teacher training programs. Similarly, teacher training programs may need to integrate strategies to boost public and private school teachers' self-efficacy and confidence. Future research in this field could investigate the factors underlying the differences in self-efficacy between public and private schools. Other factors, such as training, support, and employment demands, may significantly impact teacher self-efficacy. Future research could investigate the specific factors contributing to differences in teacher self-efficacy levels based on years of experience and the potential moderating effects of personal and contextual variables. In addition, the research could examine whether similar patterns hold for teachers in other subject areas and regions and whether the relationship between experience and self-efficacy differs between novice and experienced teachers.

7. SUGGESTIONS FOR FURTHER STUDIES

The present study utilized a combination of qualitative and quantitative research methodologies to explore the experiences and perspectives of Turkish English teachers in face-to-face and online education settings. However, there is ample room for future research to provide a more comprehensive understanding of the factors contributing to effective teaching in both modes of instruction. Future studies should delve into the connection between teacher self-efficacy beliefs and student outcomes, as this relationship was not investigated in the current study. Previous research (Skaalvik & Skaalvik, 2018) has indicated a positive association between teacher self-efficacy beliefs and student outcomes, warranting further exploration in the context of face-to-face and online education. Additionally, it would be beneficial for future research to investigate the specific competencies required for effective instruction in each mode of education. While the present study explored the competencies that English language teachers in Türkiye deemed necessary for effective teaching, it did not directly compare the competencies required for face-to-face and online education. A deeper investigation into these differences can inform teacher training and development programs.

The study identified common themes related to online education preparation, classroom management, student motivation, assessment, and technical issues, consistent with previous research emphasizing the challenges faced by online educators (Koruyan et al., 2020). Future research should further explore these topics to gain a comprehensive understanding of the difficulties and opportunities of online education, potentially leading to more effective online teaching practices.

Moreover, to enhance the generalizability of the findings, future research should investigate the experiences and perceptions of teachers in other subject areas and different countries. By incorporating a more diverse sample, researchers can better capture the varied perspectives and experiences of teachers, contributing to a broader understanding of the subject. As with any study, the present research had its limitations, including the use of a cross-sectional design and a relatively small sample size. To overcome these limitations and strengthen the study's findings, future research could employ a longitudinal research design and include a larger and more diverse sample of participants.

In conclusion, the current study shed light on the experiences and perceptions of Turkish English teachers in face-to-face and online education. However, further research is needed to deepen our understanding of effective teaching in both instructional settings. Future studies should investigate the relationship between teacher self-efficacy beliefs and student outcomes, explore the competencies required for effective teaching in each mode of education, examine the challenges and opportunities of online education, and consider the experiences of teachers in other subject areas and countries. By addressing these research gaps, we can better inform educational practices and ultimately improve the quality of instruction in diverse learning environments. Further research in this area can continue to explore the complex relationship between self-efficacy, instructional modes, and teacher perceptions to advance the field of English language teaching and improve the quality of education in diverse contexts. Future research should investigate the factors that contribute to self-efficacy in male and female teachers and gender differences in other aspects of teaching effectiveness. Future research could examine, for instance, the relationship between gender and the efficacy of teacher training programs in fostering self-efficacy. In addition, qualitative studies could be conducted to investigate the lived experiences of male and female educators and the relationship between these experiences and self-efficacy beliefs.

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Appendix B. Scale 1

Teachers Self-Efficacy Beliefs Scale (TEBS-Self)

This measure assesses teachers' self-efficacy beliefs, or teachers' individual beliefs about their own abilities to successfully perform specific teaching and learning related tasks within the context of their own classrooms.

1: Not at all true: Weak beliefs in my capabilities

2: Barely true: Moderate beliefs in my capabilities

3: Moderately true: Strong beliefs in my capabilities

4: Exactly True: Very strong beliefs in my capabilities

Right now, in my present teaching situation, the strength of my personal beliefs in my capabilities to

1. plan activities that accommodate the range of individual differences among my students	1 2 3 4
2. plan evaluation procedures that accommodate individual differences among my students	1 2 3 4
3. use allocated time for activities that maximize learning	1 2 3 4
4. Effectively manage routines and procedures for learning tasks	1 2 3 4
5. clarify directions for learning routines	1 2 3 4
6. maintain high levels of student engagement in learning tasks	1 2 3 4
7. redirect students who are persistently off task	1 2 3 4
8. maintain a classroom climate of courtesy and respect	1 2 3 4
9. maintain a classroom climate that is fair and impartially	1 2 3 4
10. communicate to students the specific learning outcomes of the lesson	1 2 3 4
11. communicate to students the purpose and/or importance of learning tasks	1 2 3 4
12. implement teaching methods at an appropriate pace to accommodate differences among my students	1 2 3 4
13. utilize teaching aids and learning materials that accommodate individual differences among my students	1 2 3 4
14. provide students with opportunities to learn at more than one cognitive and/or performance levelly	1 2 3 4
15. communicate to students content knowledge that is accurate and logically	1 2 3 4
16. clarify student misunderstandings or difficulties in learning	1 2 3 4
17. provide students with specific feedback about their learning	1 2 3 4

18. provide students with suggestions for improving learning	1 2 3 4
19. actively involve students in developing concepts	1 2 3 4
20. solicit a variety of questions throughout the lesson that enable higher order thinking	1 2 3 4
21. actively involve students in critical analysis and/or problem solving	1 2 3 4
22. monitor students' involvement during learning tasks	1 2 3 4
23. adjust teaching and learning activities as needed	1 2 3 4
24. manage student discipline/behavior	1 2 3 4
25. involve students in developing higher order thinking skills	1 2 3 4
26. motivate students to perform to their fullest potential	1 2 3 4
27. provide a learning environment that accommodates students with special needs	1 2 3 4
28. improve the academic performance of students, including those with learning disability	1 2 3 4
29 provide a positive influence on the academic development of students	1 2 3 4
30. maintain a classroom environment in which students work cooperatively	1 2 3 4
31. successfully maintain a positive classroom climate	1 2 3 4

Appendix C. Scale 2

Michigan Nurse Educators' Sense of Efficacy for Online Teaching Scale

This scale (Robinia, 2008) measures the self-efficacy beliefs of English language teachers about online education.

1 and 2: Very little

3 and 4: Little

5 and 6: Some

7 and 8: Quite a bit

9: A great deal

Michigan Nurse Educators' Sense of Efficacy for Online Teaching Scale	MNESOETS
1. How much can you do to help your students think critically in an online class?	123456789
2. How much can you do to get through to disengaged students in an online class? (e.g. passive learners who might lurk online, but fail to actively contribute to their own learning.)	123456789
3. How much can you do to control disruptive behavior (e.g. disrespectful posting or failure to adhere to outline policies for posting) in an online environment?	123456789
4. How much can you do to motivate students who show low interest in online work?	123456789
5. To what extent can you make your expectations clear about student behavior in an online class?	123456789
6. How much can you do to get students to believe that they can do well in an online class?	123456789
7. How well can you respond to difficult questions from online students?	123456789
8. How well can you establish routines (e.g. facilitate or moderate student participation) in coursework to keep online activities running smoothly?	123456789
9. How much can you do to help online students' value learning?	123456789
10. How much can you gauge student comprehension of what you have taught in an online course?	123456789
11. How well can you craft questions or assignments that require students to think by relating ideas to previous knowledge and experience?	123456789
12. How much can you do to foster individual student creativity in an online course?	123456789
13. How much can you do to get students to follow the established rules for assignments and deadlines during an online class?	123456789
14. How much can you do to improve the understanding of a student who is failing in an online class?	123456789

15. How much can you do to control students dominating online discussions?	123456789
16. How well can you establish an online course (e.g. convey expectations; standards; course rules) with each group of students?	123456789
17. How much can you do to adjust your online lessons for different learning styles?	123456789
18. How much can you do to use a variety of assessment strategies for an online course?	123456789
19. How well can you develop an online course that facilitates student responsibility for online learning?	123456789
20. To what extent can you provide an alternative explanation or example when students in an online class seem to be confused?	123456789
21. How well can you respond to defiant students in an online setting?	123456789
22. How well can you structure an online course that facilitates collaborative learning?	123456789
23. How well can you structure an online course that provides good learning experiences for students?	123456789
24. How well can you provide appropriate challenges for very capable students in an online environment?	123456789
25. To what extent can you use knowledge of copyright law to provide resources for online students?	123456789
26. How well can you navigate the technical infrastructure at your institution to successfully create an online course?	123456789
27. How well can you navigate the technical infrastructure at your institution to successfully teach an established online course?	123456789
28. To what extent can you use asynchronous discussions to maximize interactions between students in an online course?	123456789
29. To what extent can you use synchronous discussions (e.g. same time chat rooms) to maximize interaction between students in an online course?	123456789
30. How well can you use computers for word processing, internet searching and e-mail communication?	123456789
31. To what extent does your comfort level with computers facilitate participation in online teaching?	123456789
32. How well can you navigate the internet to provide links and resources to student in an online course?	123456789

Appendix D. Semi-structured Interview Questions

Part 1. Questions related to face-to-face education.

- 1) What kind of preparations do you do before the class?
- 2) Do you believe that you could achieve classroom management? What are the advantages and disadvantages in classroom management?
- 3) How do you motivate your students?
- 4) What kind of assessment do you use to assess language development of students?
- 5) Do you believe that you could maintain positive classroom climate? What kind of activities do you do for it?

Part 2. Questions related to online education.

- 1) What kind of preparations do you do before the online education?
- 2) Do you believe that you could achieve classroom management in an online class?
- 3) What are the advantages and disadvantages in classroom management during it?
- 4) How do you motivate your students in online education?
- 5) What kind of assessment do you use to assess language development of students?
- 6) How do you deal with the technical problems during an online class?

Appendix E. Permissions for Scales

2 ekin (237 KB) tümünü göster Tümünü OneDrive'a kaydet

Tümünü indir

Dear Sidika:

You are most welcome to use the survey (attached- the demographic questions are optional and not a part of the tool). Just note, if you modify the tool, then you will need to recalculate reliability/validity. Good luck with your research!

Kristi Adair PhD, RN
Associate Dean and Director | School of Nursing
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906-227-2042
[1401 Presque Isle Ave, Marquette, MI 49855](#)
*Located on the beautiful shores of Lake Superior upon the ancestral homelands of the Anishinaabeg



 **Amy B. Dellinger**

Hello Sidika Karagöz,

Yes, you have my permission to use the TEBS-Self Scale for your thesis. I am sorry for the delay in responding.

ABD

Reply on ResearchGate