### Print ISSN: 1098-8394; Online ISSN: 1528-2651

# BELIEFS ABOUT ENTREPRENEURIAL DISTANCE EDUCATION AND ITS RELATIONSHIP TO TEACHERS' PROFESSIONAL SELF-EFFICACY

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#### ABSTRACT

The research aims to identify teachers' beliefs about entrepreneurial distance education and their professional self-efficacy. It seeks to examine the relationship between these beliefs and their professional self-efficacy. The research used the correlational descriptive approach that is concerned with discovering the relationship between two or more variables to find out the extent of correlation between these variables. The research sample consisted of (140) teachers in Dammam, Kingdom of Saudi Arabia, with different scientific and humanity specializations. The research used two instruments for data collection: scale of Teachers' beliefs about entrepreneurial distance education, and a scale of teachers' professional self-efficacy (TPSE). The research found that the level of beliefs about the dimensions of entrepreneurial distance education among teachers was high. The level of TPSE, with two dimensions (classroom management and teaching activities), was high. The level of TPSE, with dimensions (managing the pressures of the teaching process, supporting thinking processes, and research competencies) was intermediate. The research also found that there is a positive statistically significant relationship, at (0.01) level, between teachers' beliefs about entrepreneurial distance education and their professional self-efficacy. The research presented a set of recommendations and suggestions.

Keywords: Beliefs about Entrepreneurial Distance Learning, Professional Self-Efficacy.

#### **INTRODUCTION**

Distance education is used to describe a wide, changing, and continuous field of nontraditional education, using a set of tools, such as video conferencing, audio conferencing and web-based communication, with a variety of types of communication, whether synchronous or asynchronous. It is a type of education via electronic media that can be accessed at any time and place. It increases access to learning content. Increasingly, it represents a strategic choice for countries to achieve their goals, and meet the needs of the workforce and the labor market in terms of permanent development of the skills of individuals. It increases their self-reflection, independence, and self-regulation and develops targeted skills for an unexpected future.

Distance education represents an open learning experience for students, encouraging them to join discussions, share ideas and tasks, and engage in a fruitful open dialogue. It

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provides a conversational and interactive learning experience (Frangou & Keskitalo, 2020; Raspopovic et al., 2017).

Although it is not a new phenomenon, the transition to teaching via the Internet may bring a number of challenges from the teacher's point of view. These challenges have been associated with separation between teachers and their students in contrast to traditional teaching in the classroom (Moore, 2014; Moore & Kearsley, 2012), the lack of online teaching experience (Johnson et al., 2020), and separation and distancing that constrains their teaching ability (Putri et al., 2020). These are in addition to difficulties in applying informational communication techniques, interacting with students, and organizing online learning resources (Verma et al., 2020) as well as the challenges associated with teacher's distrust of online teaching and the required knowledge, inadequate technological support (Putri et al., 2020), lack of motivation, lack of information literacy, and negative beliefs about the value of technology. These challenges are rooted in teachers' core beliefs about teaching and learning (Yang & Huang, 2008; Ertmer, 1999).

At the same time, the term "entrepreneurial distance education" has become a requirement for continuity in learning communities, through three situations. First, common situations as entrepreneurial education are linked to educational institutions and their role in achieving a leap in students' entrepreneurial thinking. Second, work and performance situation as entrepreneurship education is related to the work environment and taking initiatives to develop this environment and make it fruitful. Third, social situations as entrepreneurial education takes place in places that require interaction (Bjerke, 2010). If entrepreneurship is a form of social creativity that occurs first in society before it occurs in the context of business, then entrepreneurial distance education is a form of social educational innovation. It represents a societal force capable of changing daily practices and the way we live, affecting the educational present and future (Bill et al., 2010). Entrepreneurial education is defined as a complete educational and training activity that attempts to develop the entrepreneurial intention and attitudes of students towards choosing a future profession, enhancing personal skills and developing their entrepreneurial skills (Bae et al., 2014; Liñán, 2004). Li & Wu (2019) indicate that with a high level of entrepreneurial education, students, with a high level of self-efficacy, tend to organize their tasks in the future, which further improves their entrepreneurial intent towards these businesses. Entrepreneurial education is geared towards enhancing selfconfidence, motivation, tolerance of ambiguity, and taking risks (Honig, 2004). It goes beyond the idea of providing adequate opportunities for learning, task development and project building (Fayolle & Gailly, 2008), to being about personal growth, innovation, self-reliance and taking initiatives, orientation towards work in order for the learner to become an entrepreneur (Mwasalwiba, 2010). It is a professionally oriented form of education that aims to provide the learner with the knowledge and skills required for the job market. It is often experimental in which students go through a truly entrepreneurial learning process (Kyrö, 2005).

Entrepreneurial education includes content, methods, and activities that support building knowledge, competencies and experiences that allow students to initiate and participate in the processes of creating entrepreneurial value. In other words, they transform knowledge, competencies and experiences into value for others on a large scale in society, closely related to people's happiness. Helping others does not only lead to earning a living, but also to feel useful, engaged, and satisfied with life (Moberg et al., 2012). Moberg (2021) agrees that entrepreneurial distance education has a positive impact on students' intentions, and teacher and learner self-efficacy. It also focuses on creativity and value creation. Its idea is for the teacher to have a

competitive role and has the desire, creativity and initiative to adopt different educational styles, and has positive beliefs about it that enable him/her to overcome the challenges that get in the way of using it and achieving entrepreneurship.

In fact, entrepreneurial distance education cannot be isolated from the entrepreneurial mentality of practicing this type of education, and possessing a number of entrepreneurial competencies that allow the teacher to practice it, represented in the ability to use knowledge and skills, take initiative, communicate in different environments, find and use possibilities, take risks and responsibilities, produce and realize ideas, identify and plan projects, produce and build services of value to others, promote a culture of learning, work as a partner and facilitator, build a learning environment that includes workplaces and different types of knowledge, use learning activities that takes its place in the learning culture and environment, find information, try different solutions, and think about the process and beliefs about education. Together, these competencies create entrepreneurial competencies; they can be expressed in the professional competence of the teacher; they act as gears or cogwheels that demonstrate how these competencies mutually affect each other. A teacher's entrepreneurial performance or education can only be developed when the cogwheels or gears are moving simultaneously. Professional self-efficacy is defined as the knowledge, skills and attitudes that affect the desire and ability to perform entrepreneurial education to create new value around the teaching and learning processes (Sánchez, 2011; Fisher et al., 2008). Therefore, teachers' professional self-efficacy is described as an indicator of a teacher's ability to accomplish specific tasks in the teaching profession and bring about changes in student learning. It is one of the most studied structures and variables in teacher education (Morris et al., 2017).

Studies indicate that despite a number of challenges such as internet connectivity, teachers' lack of experience in teaching online, lack of interaction and communication, motivation and student participation, together with lack of support and resources for online teaching and the struggle to motivate students, the level of self-efficacy, teaching proficiency and motivation of the teacher in using technology depends on one's beliefs about distance education management systems. The levels of perceived interest, quality of the system, and conditions of facilitation are highly predictive of professional self-efficacy (Caro et al., 2021; Murray et al., 2020). Teacher's beliefs about technology and a passion for it, having a problem-solving mentality associated with it affects the degree to which he/she uses it in education as well as the ability to overcome all barriers to accessing resources and support, and to adopt more effective teaching practices that have an impact on students (Ertmer et al., 2012).

Thus, teacher's beliefs will continue to be related to self-efficacy and students' learning skills. Beliefs about teaching and teachers' self-efficacy are among the variables that affect the teaching and learning processes (Şeker & Alisinanoğlu, 2015). Teachers' self-efficacy is related to belief in their ability to deal effectively with the tasks, obligations, and challenges related to professional activity, such as practicing entrepreneurial distance education, as well as their beliefs about the education process, beliefs about distance education. It plays a major role in affecting main academic results, for example student achievement and motivation, as well as presence in the work environment. It is positively related to some human values such as openness to change, self-transcendence, and self-enhancement (Bami et al., 2019).

Given that understanding teachers' belief structures is essential to improving their professional preparation and teaching practices (Yildiz & Erdem, 2018; Pajares, 1992), and providing a strong rationale for reaching classroom practices that reformers wish to change

(Tobin & McRobbie, 1996), the current research aims to study the relationship between beliefs about entrepreneurial distance education and teachers' professional self-efficacy.

#### **RESEARCH PROBLEM**

The research questions are formulated as follows:

- 1. What is the level of teachers' beliefs about entrepreneurial distance education concerning the research sample?
- 2. What is the level of TPSE concerning the research sample?
- 3. To what extent is there a statistically significant relationship between teachers' beliefs about entrepreneurial distance education and their professional self-efficacy?

#### LITERATURE REVIEW

#### **Entrepreneurial Distance Education**

#### **Transition to the Concept of Entrepreneurial Distance Education**

The concept of distance education is a teaching philosophy based on flexible access to education on equal terms for all students. It is a concept that focuses on the student, who determines what he/she wants to learn; how, when and where he/she will learn; and how he/she defines the direction of one's career (Ibatullin & Anisimova, 2017; Peter & Deimann, 2013). It is also an area of education that focuses on pedagogy, technology and the design of educational systems aimed at providing education to students who are not physically present on site. It is a process that secures access to learning and high-quality content that increases the opportunities for lifelong learning. This process is defined as the creation or construction of an educational experience of *"equal qualitative value"* for learners. It is an education that emerged as a suitable, flexible and viable alternative. Information and communication technology go beyond classroom boundaries in both spatial and temporal terms. Technologies are used as interactive learning tools that support student-centered education and knowledge building (Dwivedi, 2017; Saleem & Al-Suqri, 2015; Heirdsfield, et al., 2011; Tu, 2005; Ramaiah, 2001).

Implementation of distance education includes changes in lesson planning and presentation. Thus, it is a change in curricula, student assessment processes, and the role of the teacher rather than merely a transmitter of knowledge for being a facilitator, demonstrating to students how to use technology and engage in a self-directed learning process (Guri-Rosenblit, 2005).

Although many studies have shown the effectiveness of distance education, it should remain entrepreneurial in its association with human resource development and demonstrate high-level reforms in teaching and learning. It should facilitate self-directed and independent learning and bring about a shift in perspective and habits of thinking, problem-solving skills, higher-order thinking skills, and research skills for students. It is a mental activity in knowledge and information space. Entrepreneurial distance education exercises its role as a mental stimulant that stimulates the learner's memory for processes, such as analysis, interpretation, visualization, deduction, linking, compilation, reduction and evaluation that lead to understanding and insight, creating a special vision on the subject of learning. It makes the learning process deeper and firmer in memory (Nguyen, 2015; Means et al., 2010; Bernard et al., 2009).

Entrepreneurial distance education is import as it represents a pathway to replace the traditional and well-established methods of practicing and performing education, with innovative teaching methods. Entrepreneurship is a key element in stimulating economic growth and development that requires a type of individuals who engage in more complex and future-oriented work (Ossai & Nwalado, 2012). Therefore, entrepreneurial distance education aims not only to develop students' basic practical knowledge and skills, but also to improve their core competencies that ensure success in entrepreneurship and future careers. These competencies are related to creativity, initiative, perseverance, teamwork, awareness of risk and responsibility (JA Europe & EuroCommerce, 2015).

Entrepreneurial distance education is the primary means to overcome the economic difficulties facing educational institutions. It also contributes to the growth of the individual and the national income of society, as it provides more specialists with an opportunity for development (Dumbu, 2014). It provides innovations for students, and enhances the existence of innovative society that turns creative work into innovations; a society that encourages the learner to become innovative, and frees him/her from the idea that innovations are rare. It is linked to the processes that change society (Johansson, 2010), so that entrepreneurial distance education seeks to provide the main sources for learning proactively, exploiting opportunities effectively. It also seeks to train competent and competitive specialists in the labor market, and achieve quality education in order to move in the direction of enhancing the economic situation, forming entrepreneurial thinking and enhancing personal qualities, such as motivation, proactive attitudes, responsibility, creativity, sociability or social mixing, stress tolerance and tolerance with ambiguity (Sousa & Almeida, 2014). These qualities promote the creation of a learner ready for professional activity (Frangou & Keskitalo, 2020). Similarly, entrepreneurial distance education enhances socialization and teaches the individual to observe and engage in social activities that enhance the value of the individual and one's identity, build meaning and the entrepreneurial role in society, as well as enhance interactive and situational methods of work that lead to social learning (Frangou & Keskitalo, 2020). Entrepreneurship is related to finding appropriate opportunities to learn comfortably, finding enterprising individuals, and discovering, evaluating and employing opportunities to create future educational outcomes.

Entrepreneurial distance education is in line with the constructive perspective in teaching that gives the learner an active role in building knowledge and forming systems of meaning, based on one's own experiences, and through a negotiation process. The learner practices investigation, verification, imagination and innovation. It encourages both the teacher and the learner to search for digital resources and sources, and read more to build knowledge. It enhances continuous interaction between the teacher and the learner (Alghamdi & Prestridge, 2015; Gilakjani et al., 2013). From a constructive perspective, entrepreneurial distance education encompasses a variety of learning styles that interact with each other, namely active learning by encouraging students to participate in learning activities, and learning through opportunities to search for information and experience; collaborative learning; and independent and self-organized learning.

#### **Entrepreneurial Distance Education: Goals and Starting Points**

Entrepreneurial distance education aims to stimulate students' entrepreneurial thinking, striving to develop their performance by applying theory in practice. It positively influences students to show a tendency towards practicing entrepreneurial learning activities, using three

main components: appropriate educational programs, different teaching methods, and the tools needed to create an entrepreneurial learning environment. These three components constitute the learner's traits necessary to form and develop entrepreneurial thinking, motivating him/her to search for effective ideas of learning (Rauch & Hulsink, 2015; Lin & Xu, 2017). It also allows the learner to develop skills and adapt to the features of change with future institutions, businesses and professions required in the globalized world (Ramaiah, 2001).

In addition, entrepreneurial distance education aims to adopt the learner's understanding as a result, maintain the learner's motivation by placing learners in a context that stimulates performance. It introduces a wide range of learning techniques, encouraging the learner to develop and work independently. It develops programs that enable the learner to communicate with others, and designs learning experience, improving the learning process by identifying how humans learn; realizing that the way each learner learns is unique, providing multiple media for participation. It encourages teachers to search for multiple ways to motivate students, build skills, and create opportunities for students to have access and navigate classrooms. It provides multiple methods for presenting information through different formats of visual and verbal representations. It provides text, audio, video and practical learning systems that give all students the opportunity to access the learning material in a way that is compatible with areas of strength in their learning, providing multiple means of action and expression (Huang et al., 2019; Meyer et al., 2014; Hepp et al., 2004).

The starting points for entrepreneurial distance education are defined as follows:

- 1. The quality of teaching is more important than how the lessons are presented; in other words, ensuring providing effective teaching elements.
- 2. Ensuring access to technology as essential; distance learning depends on digital technology. The lack of this technology represents a barrier to the success of entrepreneurial distance teaching; it is important to provide access to it, to ensure that teachers and students are provided with support and guidance for using specific platforms and implementing new forms of technology.
- 3. Providing maximum peer-to-peer interaction; exploring a range of strategies to support this interaction; and enhancing motivation and providing opportunities for live content discussions.
- 4. Supporting students to work independently to improve learning outcomes and urge students to think about their work or to think of strategies that they use if they encounter a problem.
- 5. Different approaches to distance learning are compatible with tasks and content types.
- 6. Using digital technology to support the practice of retrieval and retention of basic ideas and knowledge (Education Endowment Foundation, 2020).

Entrepreneurial distance education includes a comprehensive set of required competencies and skills, which focus on the skill of understanding the learner, a deep understanding of learning programs, and deep knowledge of the principles of contemporary educational design and the aesthetic design of the multimedia interface (Dwivedi, 2017; Ramaiah, 2001). Entrepreneurial distance education also has several characteristics. It is flexible in terms of accommodating learners, providing flexibility for learning, making education public and possible through information and communication technology. It is useful, i.e. an educational technology product that meets the needs of teachers and students. It is usable, i.e. simple, familiar, easy-to-understand, and easy-to-use. It is desirable, i.e. the visual aesthetics of an educational product, service, or system is appealing, easy to understand. It is findable, i.e. the ease of use of information in educational technology systems. It portable, i.e. the navigational structure must take into account the behavior of users and their habits. It is accessible, i.e. the

product or services must be designed so that everyone can access it. It is credible, i.e. the educational product must be trustworthy, valuable and satisfactory (Huang et al., 2019; Dwivedi, 2017; Meyer et al., 2014).

#### **Effects of Entrepreneurial Distance Education**

#### **Effects on Student Outcomes**

Entrepreneurial distance education supports the concept of learner-centered education. It gives the learner full opportunities to interact with the teacher and one's colleagues, learn at one's own pace, use special multimedia materials, conduct research, participate in online discussion forums, and gain knowledge of courses, learning communication skills, and improve attitudes towards learning. Moreover, it gives the learner a sense of self-respect and independence in life, knowledge of other cultures; it develops his competencies in selected professions in education, economics, and entrepreneurship, acquiring new skills needed for developing economy (Arinto & Cantada, 2013). Hence, it makes the learner confident in the effectiveness of one's education, competitiveness, competition in the labor market, and readiness for entrepreneurship. It prepares the learner for jobs that do not yet exist, technologies that have not yet been invented, and problems that have not yet been recognized. It develops skills related to digital economy requires individuals to quickly adapt to shifts in skills and technology requirements. It focuses more on providing individuals with main basic skills and high-level thinking competencies in addition to social and emotional skills (Dumont & Istance, 2010).

#### Effects that Go Beyond the Curriculum

Entrepreneurial distance education has an impact that goes beyond students' knowledge of school subjects, to motivate them and build new skills that are more advanced than *"twenty-first century skills"* in order to enhance economic development, entrepreneurial thinking skills, and skills related to technological literacy, information management, and work in teams, entrepreneurship, global awareness, scientific and professional problem-solving, and developing positive attitudes towards teaching, learning and future careers (Coll et al., 2014).

#### **Effects on Classroom Practices**

Teachers' acquisition of new skills can lead to changes in classroom practices, engaging in a variety of new practices, including conducting research projects, collecting and analyzing data, collaborating on multiple projects with students and with bodies most closely related to future professions, and communicating with the external reliable student-related community (White, 2013; Kozma et al., 2004).

#### **Influences on Building Cognitive Learning Communities**

It is done through the formation of informed online collaborative learning groups (seminars, discussions, and group assignments online that require students to work together). The teacher's role is defined in engaging students in learning activities and building a knowledge society. This is done by expanding their knowledge and experiences using, online resources, taking into account the desired learning styles, and supporting students to reach a level of intellectual convergence (Coll et al., 2014).

#### **Remarkably Widespread Contextual that Effect Schools**

The introduction of information and communication technology in schools can significantly change school organization and culture, increase innovation in schools, influence societies and increase access to community members. It can address the Millennium Development Goals related to education, economic development and future professions. It also enhances the vision of transforming societies from industrial economies and societies to knowledge-based societies, where knowledge becomes central and needs constant renewal through learning (Dumont & Istance, 2010; Hepp et al., 2004).

#### **Teachers' Beliefs about Entrepreneurial Distance Education**

Brown & Cooney (1982) explained that beliefs are the tendency to act. They are main determinants of behavior. They are a set of opinions that an individual has as a result of going through experiences during the learning process (Ford, 1994). They are considered a representation of reality with a degree of truth and credibility sufficient to guide behavior. They are also known to represent a predictive force for outgoing behavior (Harvey, 1986). They are mental constructs of experience guiding human behavior (Sigel, 1985). They are the "driving forces" in shaping teaching and learning processes (Alghamdi & Prestridge, 2015).

Beliefs are the most valuable psychological construct in teacher education (Pintrich, 1990), because they influence their perceptions and judgments, thus their behavior in the classroom, giving them direction, effort, energy, adoption of decisions, actions and practices. They are the driving forces in shaping teaching and learning processes, and achieving quality teaching. Bandura regards it in his theory as more effective than knowledge itself, and a powerful indicator of behavior. It is viewed from the angle of motivation that activates the strategic behavior of the individual, and from the angle of mental alertness as a component of self-regulation that works to control behavior and thinking. Therefore, it is important to study teachers' beliefs and how they affect their practices, roles, and the formation and development of teaching behavior (Bandura, 2006; 1997; 1995; 1993; 1986).

The researchers concluded that there is a relationship between teachers' beliefs and the use of technology to support students. They also concluded that facilitating teachers' access to technological tools is not sufficient to change their technological practices, especially if this facilitated access is not accompanied by a similar shift in their educational beliefs. Therefore, constructivist beliefs related to distance education *"such as beliefs about the importance of use, beliefs about creating teaching experience, beliefs about expected benefit, and beliefs about learner support."* It has more influence on the use of technology in education (Hermans et al., 2008).

Generally, Ertmer (1999) and Yang & Huang (2008) argue that teacher's beliefs about distance education require a fundamental shift in both the teaching style and the teacher's perception of what classroom life revolves around, an increase in sensitivity to individual student's problems, knowledge of how to change the classroom situation, and how evaluation is done. Additionally, if all barriers associated with securing additional resources and providing technology skills training have been removed, there will be barriers to their belief systems. Hence, it becomes important to overcome potential barriers in distance education processes to

create effective learning environments using technological tools. Bedsides, teachers' competencies "*represented in knowledge, skills and attitudes*" that are needed to implement distance education efficiently, correcting misconceptions among teachers regarding their roles and competencies in distance education (Kara et al., 2020).

Many studies were conducted to explore beliefs about distance education, including the study of Yang & Huang (2008), which indicated that the teaching and learning practices of teachers using new technologies were limited. Teacher's teaching behaviors using technology were modest, and that their beliefs affected the integration of technology in education. They find that the constructive use of technology is difficult even with adequate technical and administrative support and resources. Guven (2009) also indicated that pre-service teachers' level of cognitive beliefs about distance education was low. Alkahtani (2011) also indicated positive beliefs about the use of technology in the learning process. Galvis (2012) concluded that having positive beliefs among teachers about the use of technology is beneficial for their teaching behavior. Alghamdi & Prestridge (2015) indicated that there are teachers' positive constructivist beliefs about the use of technology in teaching and learning. These beliefs contribute to improving the research skills of teachers and students, enhancing the students' learning process, and implementing the curriculum and the teaching process to be student-centered. Yükselir's (2016) study showed positive perceptions of Internet use in the context of the teacher's learning process, and confidence in implementing online learning activities. Singh et al. (2018) confirm that although there are positive beliefs about technology integration and its role in the teaching and learning processes, not all teachers embrace technology in their classrooms. They also indicated that experienced teachers have strong beliefs about the use of technology in teaching and learning. Yildiz & Erdem (2018) indicated that teachers have low beliefs in self-efficacy related to managing the distance learning process, the effectiveness of learning outcomes, and the diversity of learning experiences. Hol (2020) also indicated that there are positive views of teachers' use of digital technology in teaching. Teachers who have received technology-related training in the use of digital technology have more positive beliefs compared to teachers who have not received.

Since there may be no study dealing with the beliefs of entrepreneurial distance education among teachers, the current research deals with these beliefs, determining their level among teachers.

#### **Teachers' Professional Self-Efficacy**

Bandura (1994; 1992; 1986) indicates that a person's attitudes, abilities and cognitive skills constitute what is known as the self-system. This system plays a major role in how we perceive different situations and how to respond to them. Self-efficacy is a major component of this self-system, and it has its effects on cognitive, motivational, and affective processes. Hence, it is an important variable in predicting behavior. Thus self-efficacy can be seen as an individual's perception of one's ability to build and implement daily and required tasks, achieving certain accomplishments. Alternatively, it is the individual's belief in one's abilities to organize and implement the courses of action required to manage potential situations. It is a personal conviction of what the individual can do effectively. It is the belief in one's ability to succeed in a specific situation, and achieve goals, continuing to face adversity, recovering from temporary setbacks, and exercising some control over events that affect behavior, motivations and life (Gümüş et al., 2021; Bandura, 2006; 1997; Schunk, 1990).

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Certain studies have revealed that self-efficacy has its effects on the desire to perform and learn, as well as the determination to exert effort, perseverance and success in difficult situations. It exerts a tangible effect on the behavior and mental performance of a person, especially the period during which the individual perseveres when facing difficult tasks and the extent of their ability to withstand facing the difficulties. Low self-efficacy is likely to lead to less persistent efforts with regard to the task, and the failure to complete the task at hand. Achieving a high sense of self-efficacy is just as important as having the skills themselves (Mannila et al., 2018).

However, self-efficacy as a concept relates not only to students but also to teachers (Pajares, 1996) because teachers have different beliefs about whether or not they can successfully perform the teaching profession. This is known as teacher's self-efficacy (or professional self-efficacy). Professional self-efficacy is an important construct that has a great impact on motivating teachers and achieving personal achievements in the educational process. Therefore, it represents a dimension of personal ability (Goddard et al., 2000).

A teacher's professional self-efficacy is defined as the teacher's judgments about his ability to influence how students learn and make them reach the desired learning outcomes through influence on the learning process, even in cases where students suffer from performance problems and see work as difficult or have low levels of motivation. Additionally, it represents one's ability to effectively organize and implement the tasks associated with the teaching process, control the enhancement of actions, and strongly influence the achievement and motivation of the learner (Mani & Prabu, 2019; Tschannen-Moran & Hoy, 2001; Tschannen-Moran et al., 1998; Pajares, 1996).

Teachers' professional self-efficacy is also described as the teacher's convictions about his ability to perform clear training tasks in a predetermined circumstance. It plays a fundamental role in choosing the teacher's personal goals, the extent of persistence in the face of adversity, and the strength of the motivation to do some behaviors in teaching, such as the use of digital educational materials (Glackin & Hohenstein 2018; Skaalvik & Skaalvik, 2010). Bandura (1977) views it as a cognitive process in which the teacher builds beliefs about his ability to perform at a certain level. These beliefs affect the amount of effort one exerts, levels of resistance during difficulties, one's flexibility in dealing with failures, and the amount of stress or depression one encounters in dealing with difficult situations, speed in the face of challenges and failure (Khaki-Najafabadi et al., 2021; Tweed, 2013). The high self-efficacy of the teacher remains the desired quality in the teaching process because of its effective role in improving and developing students' self-efficacy (Baltaoğlu & Güven, 2019). It determines one's intention to make efforts when dealing with the complex teaching situation, together with one's flexibility in adverse circumstances (Demirtaş, 2018).

Bandura (1997) assumes that a teacher's professional self-efficacy depends much on the ability to convey the topic. Additionally, its effectiveness extends to maintaining an orderly classroom conducive to learning, pooling resources, and dealing with the social influences that impede students' academic endeavors. Therefore, TPSE has gradually gained an important role in school psychology research as a result of its implications for teaching effectiveness, educational practices, and students' academic achievement (Klassen & Tze, 2014). Research has shown that teachers, with higher levels of self-efficacy, have higher levels of job satisfaction and lower levels of job-related stress, have fewer difficulties in dealing with students' bad behaviors, are more persistent in their attempts to reach learning goals when they encounter obstacles, and are more inclined to experiment effective educational strategies that are challenging; they are more willing to take risks in their classrooms, and strive to achieve successful, high-quality teaching

(Mehdinezhad, 2012; Bruce et al., 2010; Bruce et al., 2010; Bruce & Ross, 2008; Caprara et al., 2003). They also have higher levels of openness to experience and awareness, possess the ability to perform, and are highly sensitive to self-esteem (Djigi'c et al., 2014; Tweed, 2013). They have high expectations for their students, together with diverse strategies for achieving goals, and a positive attitude towards teaching, and a strong belief that they can influence student learning. Their professional self-efficacy is directed towards three educational structures, namely educational strategies, classroom management, and student participation (Sarfo, 2015). Low-efficacy teachers suffer from low self-esteem and have pessimistic ideas about their ability to accomplish the tasks; they see the task as difficult and move slowly towards it (Tweed, 2013; Bandura, 1995)

Bandura (1997) asserts that professional self-efficacy is strongly related to teaching skills and behaviors, and positive teaching. The teacher with low self-efficacy exhibits some teaching behaviors, such as avoiding activities that exceed his abilities, refraining from helping students who find it difficult to learn, and making less effort to enrich lessons; but a teacher with high professional self-efficacy tends to enrich lessons with challenging activities, help students achieve their success, and pay attention to students who have difficulty learning, and demonstrate higher levels planning, organization and design. He/She tends to create a positive atmosphere in the classroom, more interaction with students, help them understand complex topics, experience more job satisfaction and effective creative teaching strategies, together with being more consistent in the adversities of teaching (Granziera & Perera 2019; Zee & Koomen 2016; Bruce et al., 2010; Tschannen-Moran et al., 1998; Cousins & Walker, 2000; Fritz et al., 1995).

Many studies agreed that TPSE is a social cognitive theory. It is related to his/her ability to self-assess one's ability to support student learning, positively influence student achievement despite the existence of a potential set of perceived difficult circumstances, such as students' low socioeconomic status or lack of resources (Goddard et al., 2004; Bruce & Ross, 2008). Meanwhile, Bruce et al. (2010) indicates that the teacher's inflating of professional self-efficacy based on incorrect self-evaluation can lead to disrupting one's ability to take advantage of professional learning opportunities. Teachers' self-efficacy is a mediator and not a cause. It does not directly lead to achieving a high achievement, but it works indirectly by influencing the setting of teachers' goals and perseverance, making changes in educational practices in response to professional development, improving the teaching process and developing their ways of thinking, activating efforts within learning environments. Thus, teachers' self-efficacy levels can influence motivation, performance, skill, self-esteem, and implementation of teaching strategies, classroom management, and student engagement (Tweed, 2013).

Accordingly, De Paul (2012) identified the most important dimensions of TPSE. Efficiency of the community environment: it indicates that the teacher has the effectiveness of developing a good impression of the school's impact on society, expressing the importance of education among parents and society, and involving the community in school activities. Efficiency of the school environment: it indicates that the teacher has efficacy in identifying the school's needs, creating a good impression of the school towards officials, participating in school decision-making, and solving the problems it faces. Efficiency of the classroom environment: it indicates that the teacher has efficacy possessing the ability to develop knowledge, skills, and values, adopting appropriate teaching methods, using appropriate educational learning materials, highlighting the potential of students, developing their decision-making skills, motivating them and managing the classroom. Mani & Prabu (2019)

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identified the dimensions of TPSE shown by performance results. They indicate that the teacher has self-efficacy in dealing with the classroom, and has the ability to develop knowledge, abilities and values among students. Self-modeling: they refer to indirect experiences; a tool to support self-efficacy. Verbal encouragement: it is related to others' encouragement for the teacher to be able to pursue a certain task. The emotional state: it indicates that emotional arousal acts as an indicator to stop the task or continue.

Several studies were conducted that dealt with the TPSE. Wolf et al. (2010) defined the dimensions of professional self-efficacy beliefs in three educational buildings: educational strategies, classroom management and student participation. They identified the relationship between teachers' professional experiences and their sense of self-efficacy. They indicated a high level of self-efficacy among teachers, especially in the field of student participation, classroom management, and somewhat less effective with regard to instructional strategies. They demonstrated a strong overall relationship between professional experiences and the teacher's self-efficacy. Senler & Vural (2013) examined the relationship between the personality traits of pre-service science teachers, academic self-organization, and teaching self-efficacy. The results showed that achievement approach goals and the use of metacognitive strategies are positively related to the dimensions of teaching self-efficacy: student engagement, educational strategies, and management classroom. Teacher's beliefs about the importance and usefulness of the tasks they perform in the educational process (i.e. the value of the task) and their sense of control over outcomes (i.e. the control of beliefs) are closely related to teachers' self-efficacy. There is a strong relationship between teacher's self-organization and self-efficacy in teaching. Sarfo (2015) identified the dimensions of TPSE in the use of strategies, classroom management and student engagement. It was indicated that teachers in general have relatively higher professional self-efficacy beliefs, especially in the aspect of student participation. It was recommended that it is important to train teachers in educational practices, participation students and classroom management practices in order to improve efficacy level. Zee & Koomen (2016) indicated that the teacher's self-efficacy is related to the teaching processes, and covers a range of strategies, behaviors, attitudes, and various decisions in the classroom. Teachers' professional self-efficacy acts as a protective factor of the weak relationship between the student and the teacher. Teachers' self-efficacy enhances the emotional support of teaching, supports the teacher's role in maintaining intimate relationships with students, supporting their basic needs. It plays a role in the achievement and motivation of the learner. Professional self-efficacy has a high predictive value of personal achievement, and helps to remain motivated and satisfied.

Mannila et al. (2018) indicated that TPSE is related to digital efficacy and computational concepts that are critical to providing students with the education they will need in the growing technological community. It is important to help the teacher to develop one's self-efficacy in digital efficacies. As the teacher who has a higher professional self-efficacy is more capable of providing a better educational environment, and possesses digital efficacies, such as knowledge of information and data, and digital content creation, with the exception of efficacies related to digital tracking, programming and digital protection. Dilekli & Tezci (2020) compared TPSE beliefs pre-service and in-service, indicating that in-service teachers' self-efficacy beliefs were much higher than pre-service teachers' beliefs in the teaching process, classroom management, communication and environment organization. It also indicated that habits and experiences could influence the beliefs of TPSE.

Yıldız & Ürün Arıcı (2021) examined the relationship between the beliefs of science preservice teachers' self-efficacy towards teaching and their teaching skills. They showed that although pre-service teachers have high self-efficacy beliefs about teaching, their teaching skills are at an average level. They have deficiencies in teaching planning. They have some wrong behaviors, such as not ensuring students' participation and attracting their attention, choosing activities that are inappropriate for the level of students, the inability to embody abstract concepts, and the inability to assess students' performance and classroom management. Finally, the Ma et al. (2021) examined TPSE associated with the transfer of teaching via the Internet during the closure of schools as a result of the spread of covid-19 pandemic. The results indicated that there is no significant increase in teaching self-efficacy via the Internet despite the increase in the application of technology. They also noted that the lack of experience in online teaching, the separation of teachers from students in the teaching process, and the unsatisfactory academic performance of students are major factors related to teachers' self-efficacy.

In light of the above discussion, the current research seeks to determine the level of TPSE and the study of the relationship between their beliefs about entrepreneurial distance education and their professional self-efficacy.

#### **METHODOLOGY**

This research focuses primarily on teachers, as they are the most important component of entrepreneurial education systems, examining the relationship between teachers' beliefs about entrepreneurial distance education and their professional self-efficacy. The research used the correlational descriptive approach to discover the relationship between two or more variables to find out the extent of correlation between these variables. Certain scales were also used as a tool to collect data.

#### **RESEARCH SAMPLE**

The research sample consisted of (140) teachers from schools in Dammam, Kingdom of Saudi Arabia, in various scientific and humanity specializations, 68 males (48.6%) and 72 females (51.4%), from primary, intermediate and secondary schools.

#### **Teachers' Beliefs about Entrepreneurial Distance Education (TBEDE) Scale**

The scale is built based on reviewing some studies in the field of beliefs about distance education (Yildiz & Erdem, 2018; Saleem & Al-Suqri, 2015; Alghamdi & Prestridge, 2015; Alkahtani, 2011), and entrepreneurship (Moberg, 2021; Frangou & Keskitalo, 2020; Dwivedi, 2017; Lin & Xu, 2017; Sousa & Almeida, 2014; Bjerke, 2010; Johansson, 2010; Ramaiah, 2001) with the aim of identifying teacher's beliefs about entrepreneurial distance education and its relationship to their professional self-efficacy.

The scale, in its final form, consists of certain dimensions. Beliefs about the importance of use: (4) items. They address teacher's beliefs about the ability of distance education to produce positive learning outcomes, build a positive interactive environment, and facilitate the learning process. Beliefs about the formation of teaching experience: (4) items. They deal with the teacher's beliefs about the ability of distance education to change the way teaching performance, improving the quality of teaching and learning, meeting the evolving needs of the learner, and dealing effectively the learner with learning difficulties. Beliefs about realizing the expected benefit: (4) items. They address teacher's beliefs about the ability of distance education to provide multiple ways to present content, improve the quality of teaching outcomes, provide students with tasks of a research nature, and promote dialogue and discussion. Beliefs about supporting the learner: (4) items. They address teacher's beliefs about the ability of distance education to increase participation, arrange learning activities, learners' exercise of their investigative capabilities, and maintain high expectations of students. Beliefs about the effectiveness of learning outcomes: 4 items. They address teacher's beliefs about the effectiveness of distance education in developing various thinking skills, independent learning, and improving students' research skills. Beliefs of controlling remote teaching: (4) items. They deal with the teacher's beliefs about the possibility of conducting teaching remotely, the lack of sufficient knowledge about its application, and the possession of effective strategies of dealing with groups via the Internet. The scale items are phrased on a 3-point Likert scale (from 1 "Disagree" to 3 "Agree"). The scale consists of 24 items in its final form.

The reliability of the scale was measured using the Alpha-Cronbach method on a sample of (28) teachers, randomly selected from school teachers in Dammam, Kingdom of Saudi Arabia. It was found that it is equal to (0.86). The reliability coefficients for each dimension using Alpha-Cronbach were as follows: (0.80) for the dimension of beliefs about the importance of use, (0.85) for the belief dimension about the formation of the teaching experience, and (0.84) for the belief dimension about realizing the expected benefit, (0.79) for the dimension of beliefs about supporting learner, (0.78) for the belief dimension about the effectiveness of learning outcomes, and (0.88) for the dimension of the beliefs about controlling remote teaching. The validity of the scale was also verified by measuring the strength of the correlation between the scores of each dimension of the scale with the other dimensions, and the overall score of the scale using the Pearson correlation coefficient. Table 1 shows that:

Table 1THE CORRELATION BETWEEN THE SCORES OF EACH DIMENSION OF THE BELIEFS ABOUTENTREPRENEURIAL DISTANCE EDUCATION (TBEDE) SCALE WITH THE OTHER DIMENSIONSAND THE OVERALL SCORE								
Dimension	CTE	EB	LS	ELO	DTC	TBEDE		
Beliefs about the importance of use (IU)	0.83*	$0.78^{*}$	$0.78^*$	0.81*	$0.79^{*}$	$0.79^{*}$		
Beliefs about creating the teaching experience (CTE)	-	$0.85^{*}$	$0.82^{*}$	$0.78^{*}$	$0.82^{*}$	0.83*		
Beliefs about the expected benefit (EB)	-	-	0.81*	0.83*	0.81*	$0.80^{*}$		
Beliefs about supporting the learner (LS)		-	-	$0.78^{*}$	$0.79^{*}$	$0.85^{*}$		
Beliefs about the effectiveness of learning outcomes (ELO)	-	-	-	-	$0.85^{*}$	$0.78^{*}$		
Beliefs about Distance Teaching Control (DTC)	-	-	-	-	-	$0.82^{*}$		
* Correlation is significant at the 0.01 level (2-tailed).								

#### Teachers' Professional Self-Efficiency Scale (TPSE) Scale

The scale was built based on some studies in the field of teaching and TPSE (Ma et al., 2021; Yıldız & Ürün Arıcı, 2021; Dilekli & Tezci, 2020; Mannila et al., 2018; Zee & Koomen, 2016) with a view of identifying TPSE.

In its final form, the scale consists of the following dimensions. Self-efficacy to manage the pressures of the teaching process: (5) items. They deal with the teacher's efficacy in dealing with classroom problems calmly, adapting to student's needs, modifying content and teaching methods in light of students' needs, motivating the non-participating learner in learning activities. Self-efficacy in teaching activities: (4) items. They deal with the teacher's efficacy in building effective discussions, responding to difficult questions from students, adopting innovative teaching strategies. Self-efficacy in classroom management: (4) items. They deal with teacher efficacy, analyzing students' needs and preferred learning styles, using different stimulation methods, developing verbal and nonverbal interaction patterns, controlling problematic students. Self-efficacy in supporting thinking processes: (5) items. They deal with the teacher's efficacy in providing innovative, expansive activities that enhance thinking, motivating the learner to build mental explanations, discussing the learner about the validity of ideas contained in learning topics, asking questions that stimulate thinking, and encouraging students to practice reflection, research efficacy: (6) items. They deal with teacher's efficacy in using effective methods to obtain new knowledge, testing assumptions in the teaching and learning process, discussing data about learning outcomes, developing research questions related to the teaching process, and solving problems that hinder educational science. The scale items are phrased on a 3-point Likert scale (from 1 "Disagree" to 3 "Agree"). The scale consists of 24 items in its final form.

The reliability of the scale was measured by using the Alpha-Cronbach method, using a sample of (28) teachers randomly selected from school teachers in Dammam, Kingdom of Saudi Arabia. It was found that it is equal to (0.82). The reliability coefficients for each dimension using Alpha-Cronbach were as follows: (0.78) for the teaching process stress management dimension, (0.84) for the teaching activities dimension, and (0.77) for the classroom management dimension and (0.85) for the thinking processes support dimension and (0.82) for the research efficacies dimension. The validity of the scale was also verified by measuring the strength of the correlation between the scores of each dimension of the scale with the other dimensions and the overall score of the scale, using the Pearson correlation coefficient. Table 2 shows that:

Table 2 THE CORRELATION BETWEEN THE SCORES OF EACH DIMENSION OF TEACHERS' PROFESSIONAL SELF-EFFICIENCY (TPSE) SCALE WITH THE OTHER DIMENSIONS AND THE OVERALL SCORE							
Dimension	ТА	СМ	STP	RC	TPSE		
Managing the Stress of the Teaching Process (MSTP)	$0.77^{*}$	$0.76^{*}$	$0.77^{*}$	0.81*	$0.80^{*}$		
Teaching Activities (TA)	-	$0.85^{*}$	$0.86^{*}$	$0.78^{*}$	$0.85^{*}$		
Classroom Management (CM)	-	-	0.73*	0.83*	$0.79^{*}$		
Supporting Thinking Processes (STP)	-	-	-	$0.72^{*}$	$0.78^*$		
Research Efficacies (RC)	-	-	-	-	0.81*		
* Correlation is significant at the 0.01 level (2-tailed).							

#### **RESEARCH RESULTS**

#### **Teachers' Beliefs about Entrepreneurial Distance Education (TBEDE)**

To answer the first question: What is the level of teachers' beliefs about entrepreneurial distance education concerning the research sample? Arithmetic means and standard deviations were used. A standard was determined to measure the mean responses of the research sample on the scale by specifying the length of the category by (0.66) based on determining the range. The standard for measuring the mean responses of the sample was as follows: the arithmetic mean (1-1.66) represents a low level; the arithmetic mean (1.67 - 2.33) represents a medium level; and the arithmetic mean (2.34 - 3) represents a high level. Table 3 shows that:

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Table 3								
THE MEANS AND STANDARD DEVIATIONS OF THE AVAILABILITY LEVEL OF TEACHERS'								
<b>BELIEFS ABOUT ENTREPRENEURIAL DISTANCE EDUCATION (TBEDE) (N=140)</b>								
Dimension of Teachers' Beliefs about Entrepreneurial Distance Education (TBEDE)	Mean	Std. Deviation	Level	Rank				
Beliefs about the Importance of Use (IU)	2.73	0.24	High	1				
Beliefs about Creating the Teaching Experience (CTE)	2.70	0.30	High	2				
Beliefs about the Expected Benefit (EB)	2.68	0.43	High	5				
Beliefs about Learner Strengthening (LS)	2.69	0.32	High	3				
Beliefs about the Effectiveness of Learning Outcomes (ELO)	2.54	0.20	High	6				
Beliefs about Distance Teaching Control (DTC)	2.69	0.34	High	4				
TBDE Total	2.67	0.37	High					

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In Table 3, it is evident that the mean level of availability of teachers' beliefs about entrepreneurial distance education ranged between (2.54-2.73). The order of dimensions came as

follows: beliefs about the importance of use (M=2.73; SD=0.24); beliefs about the formation of teaching experience (M=2.70; SD =0.30); beliefs about learner support (M=2.69; SD=0.32); beliefs about controlling remote teaching (M=2.69; SD=0.34); beliefs about expected benefit (M=2.68; SD=0.43); and beliefs about the effectiveness of the learning outcomes (M=2.54; SD=0.20). The arithmetic mean of the scale as a whole was (M=2.67) and the standard deviation (SD=0.37). Nevertheless, the level of availability of beliefs about the dimensions of entrepreneurial distance education among teachers and the scale as a whole was high, as all the arithmetic means fell in the category between 2.34-3.00.

This result indicates that teachers have convictions about the importance of using entrepreneurial distance education, and its role in creating teaching experience, realizing the expected benefit from using it, supporting the learner, achieving effective learning outcomes, and achieving the dimensions of control over the teaching process. It provides them with building a positive interactive environment, facilitates the learning process, improves the quality of teaching and learning. Based on it, it is possible to support the learner with learning difficulties, provide students with tasks of a research nature, and enhance dialogue and discussion. The learner can exercise one's inquiry abilities, and to maintain high expectations, developing different thinking skills, independent learning, and improving research skills.

This result confirms that teachers have the ability to use technological tools in information management and the teaching process, and to integrate technologies into teaching and learning activities, with a view to providing high-quality education and increase lifelong learning opportunities (Heirdsfield et al., 2011; Tu, 2005). It also affirms that the teacher possesses a high perspective towards entrepreneurial distance education because it is a strong element in human resource development, demonstrating high-level reforms in teaching and learning, "realizing the importance of use." It has a role in facilitating self-directed and independent learning. It brings about a shift in perspective, habits of thinking, problem-solving skills, and higher thinking skills: research skills of students. It creates a mental vision within the cognitive and information space creating the teaching experience, realizing the expected benefit, and supporting the learner. It has a role in stimulating the mind, stimulating memory and practicing the processes of analysis, interpretation, imagination, deduction, linking and aggregation, leading to the creation of a special vision on the subject of learning: the effectiveness of learning outcomes (Nguyen, 2015; Means et al., 2010; Bernard et al., 2009).

This result indicates the teacher's awareness of the importance of entrepreneurial distance education in the practice and performance of education in innovative teaching methods. It has a role in the way students develop basic practical knowledge and skills, and improve basic efficacies that ensure students succeed in entrepreneurship and future careers, such as efficacies associated with creativity, initiative, perseverance, teamwork, awareness of risks and responsibility. It represents a key element in stimulating economic growth and development, and building a generation of individuals practicing more complex and future-oriented patterns of business. It enhances the existence of an innovative community that allows creative work to become innovative (JA Europe & EuroCommerce, 2015; Dumbu, 2014; Ossai & Nwalado, 2012; Johansson, 2010).

The high level of teachers' beliefs about the importance of use, the perception of the expected benefit, and the effectiveness of the learning outcomes indicates the teacher's vision of entrepreneurial distance education as a trend of education that provides the main resources for learning proactively and effectively exploiting opportunities. It seeks to train competent specialists in the labor market, and achieve the quality of education in order to move in the direction of enhancing the economic situation, forming entrepreneurial thinking and enhancing personal qualities, such as motivation, proactive attitudes, responsibility, innovation, stress tolerance and tolerance of ambiguity; they promote the creation of a learner ready for professional activity (Frangou & Keskitalo, 2020; Sousa & Almeida, 2014).

Similarly, the high level of teachers' beliefs about the formation of teaching experience and the control of distance education indicates that entrepreneurial distance education enhances the teacher's ability to find appropriate opportunities for learning, discover, evaluate and employ opportunities to create future educational outcomes, encourage students to participate in learning activities, search for digital resources and resources, build their knowledge and practice investigation, verification, imagination and innovation (Frangou & Keskitalo, 2020; Alghamdi & Prestridge, 2015; Gilakjani et al., 2013).

The results of this research are consistent with studies that dealt with beliefs in distance education, such as Alkahtani (2011) who indicated the existence of beliefs about the use of technology in the learning process. Galvis (2012) indicated the presence of positive beliefs among teachers about the use of technology that is reflected in their teaching behavior. Alghamdi & Prestridge (2015) indicated the existence of teachers' positive constructive beliefs about the use of technology in teaching and learning. These beliefs contribute to improving the research skills of teachers and students, enhancing the students' learning process, and implementing the curriculum and the teaching process to be student-centered. Yükselir (2016) indicated positive perceptions of Internet use in the context of the teacher's learning process, confidence in implementing online learning activities. Hol (2020) indicated more positive beliefs about the use of digital technology teaching.

The results differ with the study of Yang & Huang (2008), who believes that the teaching and learning practices of teachers using new technologies were limited, and that their teaching behaviors using technology is modest. They do not have a high degree of beliefs about the integration of technology in education. They disagree with the study of Guven (2009), who indicated a low level of cognitive beliefs about distance education among teachers. They are inconsistent with the study of Singh et al. (2018) who indicated that not all teachers adopt technology in their classrooms, and with the study Yildiz & Erdem (2018) who indicated that teachers have low beliefs in self-efficacy related to managing the distance learning process.

The presence of a high level of teachers' beliefs about entrepreneurial distance education can be explained by the fact that they believe that this style of education reinforces some goals such as stimulating entrepreneurial thinking among students, practicing entrepreneurial learning activities, and linking theory and practice in the teaching process through the interaction between appropriate educational programs, the different teaching methods and tools necessary to create an entrepreneurial learning environment. This environment has its effect on the learner in the formation and development of entrepreneurial thinking, and motivation to search for effective ideas and learning, develop skills and adapt to the features of change with the future demanding business institutions and professions in the world (Lin & Xu, 2017; Rauch & Hulsink, 2015; Ramaiah, 2001). It supports the teacher's vision of distance education as an entrepreneurial education that aims to support the learner's understanding as a result. It maintains learner's motivation (the belief dimension about learner strengthening). It provides a wide range of learning techniques (the belief dimension about the importance of use); encouraging learner development by acting independently (the dimension of beliefs about the effectiveness of learning outcomes); designing the learning experience and recognizing the ways by which individuals learn (the dimension of beliefs about the formation of teaching experience); looking for multiple ways to motivate students, building skills, presenting information through different formats of visual and verbal representations (distance learning control beliefs dimension); and proposing multiple ways to interact with learning materials, and think about what they shape the learner's meaningful experience, understanding learning experiences as a variety of experiences, improving the quality of instructional outcomes, and providing students with tasks of a research nature (dimension of beliefs about perceiving the expected benefit) (Huang et al., 2019; Meyer et al., 2014; Hepp et al., 2004).

#### **Teachers' Professional Self-Efficiency (TPSE) Scale**

To answer the second question: What is the level of professional self-efficacy of the research sample? Arithmetic means and standard deviations were used. A standard was determined to measure the mean responses of the research sample on the scale by specifying the length of the category by (0.66) based on the determination of the range. The standard for measuring the mean responses of the respondents came as follows: the arithmetic mean (1.00-1.66) which represents a low level; the arithmetic mean (1.67-2.33) which represents a medium level; and the arithmetic mean (2.34-3.00) which represents a high level. Table 4 shows that:

Table 4   THE MEANS AND STANDARD DEVIATIONS OF THE AVAILABILITY LEVEL OF TEACHERS'   PROFESSIONAL SELF-EFFICIENCIES (TPSE) (N = 140)								
Dimension of Teachers' Professional Self-Efficiency (TPSE)	Mean	Std. Deviation	Level	Rank				
Managing the stress of the teaching process (MSTP)	2.31	0.23	medium	3				
Teaching activities (TA)	2.69	0.30	High	2				
Classroom Management (CM)	2.78	0.35	High	1				
Supporting Thinking Processes (STP)	2.29	0.34	medium	4				
Research Efficacies (RC)	2.27	0.35	medium	5				
TPSE Total	2.46	0.31	High					

It is evident from Table 4 that the mean levels of availability of teachers' professional self-efficacy ranged between (2.27-2.78). The order of dimensions came as follows: Classroom Management (M=2.78; SD=0.35); Teaching Activities (M=2.69; SD=0.30); Managing the Stress of the Teaching Process (M=2.32; SD=0.23); Supporting Thinking Processes (M=2.29; SD=0.34); Research Efficacies (2.27; SD=0.35); the mean of the scale as a whole is (M=2.46), standard deviation (SD=0.31).

Nevertheless, the level of TPSE of the dimensions (classroom management and teaching activities) was high, as the arithmetic means fell in the category between (2.34-3.00). The level of TPSE in the dimensions (managing the stress of the teaching process, supporting thinking processes, and research efficacies) was intermediate. The arithmetic means fell in the category between (1.67-2.33) while the level of TPSE on the scale as a whole was high; the arithmetic mean (2.46).

These results indicate that the high level of professional self-efficacy in teaching activities and classroom management is due to the teacher's desire to perform, build effective discussions, respond to difficult questions from students, adopt innovative teaching strategies, and insist on exerting effort, perseverance and success in difficult situations. It indicates that teachers have good judgments about their ability to influence how students learn, and make them reach the required learning outcomes (supporting thinking processes), in addition to having the ability to effectively organize and implement the tasks associated with the teaching process. They have the determination to exert effort when dealing with complex teaching situations (Baltaoğlu & Güven, 2019; Mani & Prabu, 2019; Demirtaş, 2018; Tschannen-Moran & Hoy, 2001; Tschannen-Moran et al., 1998)

These results are consistent with what Goddard et al. (2000) that professional selfefficacy is an important construct that has a great impact on motivating the teacher and achieving personal achievements in the educational process, such as trying to manage the pressures of the teaching process, implementing teaching activities, managing the classroom, supporting thinking processes, and having research efficacies.

This result also indicates that TPSE help them adopt high expectations towards their students, have strategies to achieve goals, develop a positive attitude towards teaching, and have a strong belief that they can influence student learning and manage the stress of the teaching process, and the practice of teaching activities, classroom management and support for thinking processes. Sarfo (2015) believes that professional self-efficacy has three educational structures, namely educational strategies, classroom management, and student participation. It is in line with Bandura (1997) who believes that professional self-efficacy is strongly linked to the skills and behaviors of teaching, together with positive teaching.

This result also confirms the high degree of tendency by the teacher towards enriching lessons with challenging activities, helping students to achieve their success, pay attention to students who have difficulty in learning. They create a positive atmosphere in the classroom, interact with students, and help them understand complex topics and act steadfastly in challenging teaching situations, and experimenting with many effective creative teaching strategies (Granziera & Perera 2019; Zee & Koomen 2016; Bruce et al., 2010; Bruce & Ross, 2008; Cousins & Walker, 2000).

This result is consistent with Wolf et al., (2010) who indicated a high level of teachers' self-efficacy, especially in the field of student participation and classroom management, but it differs with it in the dimension of educational strategies. It agrees with the study of Senler & Vural (2013) in teachers' ownership of the dimensions of self-efficacy, such as student engagement, educational strategies, and classroom management; the high level of self-efficacy of the teacher is due to one's ability to self-organization, sense of task value, and internal interest. It is also consistent with Sarfo (2015) who identified the dimensions of TPSE in terms of in strategies, classroom management and student engagement; teachers have a high level of professional self-efficacy beliefs. It is consistent with the study of Yıldız & Ürün Arıcı (2021) in the existence of high pre-service teachers' self-efficacy beliefs towards teaching.

Results reached by Zee & Koomen (2016) confirm that high TPSE indicates its use as a protective factor to support the teaching processes and the relationships between them and students, supporting thinking processes, managing the pressures of the teaching process, and dealing with these pressures in a research-based manner. It also supports that the availability of high levels of TPSE may be due to the availability of positive attitudes towards the teaching profession, training experience, fondness for the profession, and self-confidence. It also supports the results reached by Dilekli & Tezci (2020) that the high level of in-service TPSE of in the teaching process, classroom management, communication and environment organization due to experience.

# The Relationship between Teachers' Beliefs about Entrepreneurial Distance Education and Professional Self-Efficacy

To answer the third question: To what extent is there a statistically significant relationship between teachers' beliefs about entrepreneurial distance education and their teaching self-efficacy?" Pearson correlation coefficient was used between teachers' scores on the scale of beliefs about entrepreneurial distance education and their scores on the scale of professional self-efficacy. Table 5 shows a matrix of correlation coefficients between teachers' beliefs about entrepreneurial distance education and professional self-efficacy.

Table 5 PEARSON CORRELATION COEFFICIENT BETWEEN TEACHERS' BELIEFS ABOUT ENTREPRENEURIAL DISTANCE EDUCATION AND THEIR PROFESSIONAL SELF-EFFICACY							
Professional Sel	(MSTP)	(TA)	(CM)	(STP)	(RC)	<b>TPSE Total</b>	
Beliefs about	(IU)	0.511**	0.544**	0.483**	0.712**	0.591**	0.612**
Entrepreneurial	(CTE)	0.721**	0.581**	0.497**	0.467**	0.663**	0.783**
Distance	(EB)	0.647**	0.545**	0.654**	$0.559^{**}$	0.477**	$0.847^{**}$
Education	(LS)	$0.588^{**}$	0.479**	0.575**	$0.489^{**}$	$0.578^{**}$	0.812**
(TBEDE)	(ELO)	0.599**	0.654**	$0.768^{**}$	0.779**	0.682**	0.612**
	(DTC)	0.812**	0.804**	0.640**	0.811**	0.599**	0.856**
	TBEDE Total	0.733**	0.567**	0.689**	0.612**	0.612**	0.576**
	** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).						

It is evident from Table 5 that there is a positive statistically significant relationship, at the (0.01) level, between teachers' beliefs about entrepreneurial distance education and their professional self-efficacy.

This positive correlational relationship can be attributed to the nature of the dimensions that make up the main variables (entrepreneurial distance education beliefs / professional self-efficacy) in light of their dynamic interaction within the personality components of the teacher (Senler & Vural, 2013). The positive correlation between teachers' personality traits and beliefs about entrepreneurial distance education *"beliefs about the importance of use - formation of teaching experience - perception of expected benefit - supporting the learner - effectiveness of learning outcomes - controlling distance teaching "professional self-efficacy" teaching process stress management - teaching activities - classroom management - supporting thinking processes - research efficacies"*, confirm that the TPSE has its effects on the effectiveness of teaching and educational practices (Klassen & Tze, 2014), which are applied remotely and behind which are strong beliefs about distance education. The correlation between professional self-efficacy and

beliefs about distance education allows the teacher to try to reach high levels of job satisfaction when switching to the performance of the teaching process remotely, openness to experience and awareness, and face the difficulties that occur during the transformation. They are more persistent in achieving their goals, and more inclined to experiment with effective educational strategies that represent a challenge, and more willing to face the risks and obstacles in teaching remotely, together with the pursuit of successful, and high-quality teaching. This is what was indicated by many studies that emphasized the importance of the positive correlation between the personality traits of teachers (Djigi´c et al., 2014; Mehdinezhad, 2012; Bruce et al., 2010).

The positive correlational relationship between entrepreneurial distance education beliefs and TPSE confirms what many researchers have indicated about the effects of entrepreneurial distance education, represented in students' results, achieving the curriculum, activating classroom practice, and building cognitive learning societies behind which there is a high level of TPSE. It appears by giving the learner full opportunities to interact with the elements of the educational process, conducting research and participating in discussion forums on the Internet, increasing knowledge of study subjects, self-esteem and independence in life, and increasing the learner's efficiency in choosing among careers in education, economics and entrepreneurship, acquiring new skills needed for the digital economy, and preparing for entrepreneurship (Arinto & Cantada, 2013; Dumont & Istance, 2010). Teachers' professional self-efficacy is also shown by motivating students to build new, more advanced skills, entrepreneurial thinking skills, solving scientific and professional problems, and developing positive attitudes towards teaching, learning and future careers (Coll et al., 2014). Similarly, the impact of this professional efficacy is shown in bringing about changes in classroom practices, and involvement in a variety of new practices, including conducting research projects (White, 2013; Kozma et al., 2004). It is shown also in forming cooperative learning groups via the Internet, engaging students in learning activities and building a knowledge society (Coll et al., 2014), promoting economic development and future occupations, and the transformation of societies from industrial economies and societies to knowledge-based societies (Dumont & Istance, 2010).

This relationship also confirms that beliefs about entrepreneurial distance education are the most valuable psychological construct in teacher education (Pintrich, 1990), because they affect their professional efficacies, and their teaching behavior, shape teaching and learning processes, and give them direction, effort, energy, and adopt decisions, actions and practices, achieving teaching quality (Bandura, 2006; 1997; 1993). They activate the teacher's strategic behavior and mental alertness as a component of self-regulation responsible for the high level of professional self-efficacy. This is what Senler & Vural (2013) indicated that the high level of self-efficacy of the teacher is due to his ability to self-regulate.

These results are consistent with what Yildiz & Erdem (2018) indicated that the majority of teachers have an understanding of what the distance education system provides, knowledge of the dimensions of technology management and virtual classroom management. They also have strong beliefs about professional self-efficacy. They are consistent with the study by Mannila et al. (2018) that indicated that a teacher's professional self-efficacy is related to digital efficacy and computational concepts that are critical to providing students with the education they will need in the growing technological community. Therefore, it becomes important to have a high level of beliefs about education to help the teacher develop one's own efficacy in digital efficacies. The teacher with high professional self-efficacy is more able to provide a better educational environment, and possesses the following digital efficacies: knowledge of information and data, communication and cooperation, and digital content creation.

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They are also in agreement with the study of Ma et al. (2021), which indicated that the availability of TPSE facilitated the transmission of teaching via the Internet during school closures due to the spread of the Covid-19 pandemic. They are supported by Ma et al. (2021) that the lack of experience in online teaching, the separation of teachers from students in the teaching process, and the unsatisfactory academic performance of students are major factors related to teachers' self-efficacy. Hence, it becomes important to have a high level of beliefs about entrepreneurial distance education.

#### CONCLUSIONS AND RECOMMENDATIONS

Studying the relationship between beliefs about entrepreneurial distance education and the TPSE is of great importance to consolidate the idea of entrepreneurial education as it relates to personal development, innovation, self-reliance, taking initiatives and orientation towards work in order for the learner to become an entrepreneur. Entrepreneurial distance education cannot be isolated from the entrepreneurial mindset to practice this type of education and the beliefs about it and to possess a number of entrepreneurial efficacies that allow the teacher to practice this type of education, which is known as professional self-efficacy.

The results indicated that teachers have convictions about the importance of using entrepreneurial distance education, and its role in creating teaching experience, realizing the expected benefit from using it, supporting the learner, achieving effective learning outcomes, and achieving the dimensions of control over the teaching process. They also indicate the availability of a high level of TPSE, especially in the dimensions (classroom management, and teaching activities).

Finally, the results of the research found a correlation between teachers' beliefs about entrepreneurial distance education and their professional self-efficacy. This relationship is attributed to the nature of the dimensions that make up the main variables (entrepreneurial distance education beliefs/professional self-efficacy) in light of their dynamic interaction within the personality traits of the teacher, the positive correlation between beliefs about entrepreneurial distance education *"beliefs about the importance of use - the formation of teaching experience - awareness of the expected benefit - supporting the learner - effectiveness of learning outcomes - controlling distance teaching and "professional self-efficacy" managing teaching process stress - teaching activities - classroom management - supporting thinking processes - research efficacies" confirm that TPSE has its effects on the effectiveness of teaching and educational practices.* 

The current research recommends paying attention to strengthening beliefs about entrepreneurial distance education as a major factor that enhances TPSE, as well as the necessity to provide training programs related to the development of beliefs about entrepreneurial distance education and TPSE, and the study of factors affecting both entrepreneurial distance education and TPSE.

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