

Perceived Self-Efficacy among Special Education Students Enrolled in a Practical Training Program during the COVID-19 Pandemic in Jordan

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Abstract

The current study aimed to investigate the level of perceived self-efficacy among special education students enrolled in the practical training program during the COVID-19 pandemic in Jordan. The study sample consisted of (150) male and female students from various public and private Jordanian universities, who were purposefully chosen, and enrolled in practical training during the semesters that continued under the pandemic. To achieve the objectives of the study, the descriptive approach and the perceived self-efficacy scale prepared by the researcher were used. The results of the study showed that the level of perceived self-efficacy among students of practical training in the specialization of special education came at a high level; the results also indicated that the level of perceived self-efficacy concerning the employment of modern technology ranked first and at a high degree, while the self-efficacy related to teaching skills and behavior modification, as well as management, communication, and social responsibility came to a medium degree. The results also showed that there are statistically significant differences between the arithmetic averages of the level of perceived self-efficacy among students of field training in the specialization of special education who are registered in Jordanian universities according to the type of university (public/private) on the total degree and all dimensions except for the dimension (management, communication, and social responsibility) and in favor of private universities. The results also showed that there were statistically significant differences between the arithmetic averages of the level of self-efficacy among students of special education according to the type of training and its duration on the total degree and dimensions and in favor of the two training categories ("full and continuous semester" and "full and intermittent semester"). In contrast, the results did not show any statistically significant differences between the arithmetic averages of the level of perceived self-efficacy among special education students enrolled in the practical training program during the COVID-19 pandemic in Jordan, according to the student's gender.

Keywords: *Self-Efficacy, Special Education Students, Practical Training, COVID-19.*

Introduction

The world has faced changes in the educational process that can only be coped with by qualifying teachers with modern educational experiences that include environmental variables, the pattern of societies, and value systems. With the emergence of the Covid-19 pandemic and its invasion of most countries of the world, various educational institutions were forced to close in order to avoid the transmission of infection between members of society, and this was considered one of the requirements of social distancing to prevent the spread of the epidemic, which directed attention towards finding solutions to problems related to education and the mechanism of its continuity, distance education and e-learning were one of those solutions that were imposed in reality, and this led to the emergence of great challenges that stood before educational institutions, particularly higher education. Practical training program is one of those programs that stumbled due to the pandemic, which forced the search for alternatives to educational models that may be a hybrid between education in training sites or outside, such as simulating the training process, employing technology and using virtual reality, which increased the challenge when looking at the implications (Goghari, Hagstrom, Madon & Messer-Engel, 2020).

Official reports also indicated that 1.5 billion children and young people in 188 countries around the world were forced to stay in their homes after closing schools and higher education institutions (Affounh, Salha, Khlaif, 2020), and this certainly has an impact on ensuring the quality of education and training in educational institutions. In this regard, (Hodges, Moore, Lockee, Trust, BondH, 2020) conducted a study aimed at revealing the difference between distance teaching in emergencies and online education, where the researchers designed a model consisting of evaluation conditions and a set of questions through which to evaluate distance teaching in emergency situations, and measuring the extent of the success of distance learning experiences via the Internet, and the study concluded that the experiences of online learning differ

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from learning in emergency situations in terms of the quality of planning, and in terms of courses provided online in response to the crisis, the global survey report prepared by the International Association of Universities (IAU) showed that the pandemic highlighted the urgent need to support students in universities, not only at the academic level, but at the global level, and stressed the importance of finding alternative plans in response to the needs that emerged in higher education institutions, in order to overcome the negative impact on the experience of students during the years of study that preceded the emergence of the epidemic (Marinoni, Land, & Jensen, 2020).

While (Sahu, 2020) indicated in his study the impact of closing universities due to the Coronavirus (COVID-19) on the education and mental health of students and faculty, several universities have postponed or canceled all university activities. In addition, universities have taken extensive measures to protect all students and employees from the epidemic as the transition to the electronic teaching system has been made. The results of the study showed that universities must implement laws to slow the spread of the virus and the need for students and employees to receive regular information through e-mail, as health is a top priority, and faculty members must pay close attention to technology to make students' learning experiences rich and influential.

Practical training - field training - is a program offered to teachers and students of faculties of education to qualify them during their study, not to provide them with the necessary skills for teaching and educational experience after completing theoretical courses for not less than three months or a semester, during which students practice the teaching process and are supervised by a supervisor specialized in practical education (Al-Jassar, Al-Tamar, 2004).

Tamea (2009) confirms the above, as practical training programs must be directed towards enabling students to self-development through acquiring modern and appropriate teaching methods, searching for sources of knowledge, and creating a spirit of creativity in the educational field. In addition, the modern practical training program also aims to prepare students for the school climate and ensure their interaction with the local environment and society and the changes that govern the educational and administrative process, develop attitudes towards the teaching profession, develop a professional sense of student teachers, and implement the theoretical and applied foundations that have been learned throughout the study stage.

The concept of practical training refers to the practical aspect of the teacher preparation program provided by an educational college so that students apply what they have studied from specialized educational and psychological theoretical courses in educational situations under the supervision of a specialized technical supervisor according to a specified period in one of the cooperating schools or centers; this is to provide them with essential teaching skills, empowering them with the theories and principles that have been learned, and developing his appreciation for the teaching profession to be a teacher responsible for his role and appreciative of his duties (Makaneen, 2015).

Al-Baghdadi and Al-Baghdadi (2005) indicate that the practical training program is a framework that enables students to apply the rules of the profession and its strategy through what has been theoretically studied in teaching courses and its methods and various assessment methods, to provide them with planning, scientific, educational, personal and professional skills.

The practical training course for students is also one of the basic courses for obtaining a bachelor's degree in the specialization by passing several hours in an institution to get acquainted with the reality of functional work and the experience of dealing with colleagues within the same team and to practice communication and communication skills with members of the community. Furthermore, it shows its importance in helping students to apply lessons and use teaching aids, puts them in an educational position under the supervision of experts, and helps them in forming the teacher's teaching personality in the light of what has been learned and contributes to the growth of social interaction in the community of the external and internal educational institution. Thus, students can realize and assume responsibility in school life with the help of supervisors in the institution and the university (Rachi, 2000; Hadith, Abu Al-Tayeb, Al-Kilani 2004; Al-Diri, Al-Hayek 2011).

On the other hand, the importance of practical training appears in providing the opportunity for students to apply the knowledge and information obtained during the academic years of study in practice to link them. Where practical education is the central aspect in the professional preparation of students, during which they acquire the skills and actual teaching procedures, it is one of the essential courses in teacher preparation programs in which students are given individual guidance during the training and preparation period. Through it, he is acquainted with the elements of successful teaching, the characteristics and skills of the teaching profession, and the most important methods of teaching and assessment; it may often be considered an indicator of success for teachers, as the type of training received is reflected in later skills and confidence in his professional behavior and self-efficacy. This makes him a teacher capable of employing all teaching skills and abilities. (Al-Baghdadi and Al-Baghdadi, 2005).

Undoubtedly, the classroom teacher's educational behavior is affected by various factors, including his scientific knowledge and the level of his understanding of scientific concepts. One of the important factors affecting his educational behavior is his self-efficacy; Bandura's social cognitive theory states that an individual's beliefs about his or her ability to perform a particular job influence how he or she performs the work. Bandura (1986) identified two dimensions of self-efficacy: The first dimension is personal self-efficacy, which means the individual's belief in his ability to carry out the tasks required of him successfully. The second dimension is called the expectation of outputs. It refers to an individual's belief that his behavior in a particular way will lead to the desired results. Hammad and Muhammad (2018) explained the importance of field training for student teachers in the Department of Special Education in developing self-efficacy and its effectiveness in forming positive attitudes towards their students. The teacher's self-efficacy is also required to create an appropriate learning environment, where the highly qualified teacher strives to do more work in the student's education.

While the teacher with low competence tries to avoid dealing with various academic and behavioral problems and evade them, the teacher's ability to create an educational environment that meets the needs of students depends on his self-efficacy and personal talents. A teacher with a strong sense of agency can build an environment that supports the development of students' intrinsic needs and helps them achieve their academic goals (Dicke, Parker, Marsh, Kunter, Schmeck, Leutner, 2014). Bandura (1986) also pointed out that self-efficacy is affected by four factors: the ability to master; verbal persuasion, exchange experiences, and Physiological condition.

The Study Problem

The emergence of the Covid-19 pandemic imposed a closure on educational and educational institutions, and this closure included schools and specialized centers for people with disabilities, which are the natural place for qualifying students enrolled in the practical training course to move at this stage from the stage of theoretical education to practical and applied practice of everything that was studied in the academic years and thus enabling them to understand the field more clearly. In view of the closure caused by the pandemic, these students were deprived of the opportunity to interact with students with disabilities and to apply what they learned from teaching methods and behavior modification. It was sufficient to find alternative training and assessment methods, drawing attention to the need to measure and know the effects of that. Since the researcher is studying the practical training course for special education students, she was forced to follow an alternative plan for training and evaluating students through technology in the training process. Through this study, the researcher tried to find out the level of perceived self-efficacy among a sample of students who joined the practical training program during the pandemic in private and public universities.

The Study Questions

The current study attempted to answer the following questions:

1. What is the perceived level of self-efficacy among special education students enrolled in the practical training program during the COVID-19 pandemic and registered in Jordanian universities for the academic year 2020/2021?

2. Are there statistically significant differences at the level ($\alpha = 0.05$) between the arithmetic mean scores of the study sample on the perceived self-efficacy scale due to the variables: the type of university (governmental, private), the student's gender, the type of training (intermittent, continuous), and its duration?

The Study Importance

The importance of this study appears in two important aspects, one of which is theoretical and is represented by focusing on its subject, as it is considered one of the first few studies that focused on the impact of the Covid-19 pandemic on teacher preparation programs, specifically the practical training program in education disciplines, knowing the level of self-efficacy of educated students, which affects their confidence in their professional skills, and highlights its importance by shedding light on the issue of preparing pre-service special education teachers. Likewise, the study sheds light on the issue of perceived self-efficacy because of its importance in the success of the teacher's role in the field. The importance appears on the practical side as well, as it will provide a measurement tool that can be used later; it will also provide researchers with important data about the effectiveness of field training during the Covid pandemic. Thus recommendations will emerge from its results related to finding alternative plans to address emergency conditions and plans that will allow student-teachers to apply what has been learned by creating artificial or virtual environments and employing technology and virtual reality applications.

Terminology of the Study

Perceived self-efficacy: Teacher's self-efficacy: Self-efficacy is generally defined as the teacher's belief in his abilities and potential to influence the outcome of teaching and learning (Wan, 1999). The current study determines the degree obtained by the study sample according to the scale prepared for this purpose. **Practical training program:** Masoud (2006) defines the practical training program as a program linked to a period that extends over an entire semester the student spends in a school or special education center. During the course, under the supervision of the college supervisor (a faculty member at the university) and the cooperating supervisor at the training institution, he applies the concepts and theories he studied in the theoretical preparation stage. This aims to enable him to perform the educational tasks entrusted to the special education teacher, as (Al-Mutawa, 2000 and Al-Sati, 2009) indicate that practical training is a transitional link between the field of study and the field of work. Therefore, teaching experiences must contribute to preparing students (teachers). In the current study, practical training is intended to be the course of the special education program. Therefore, it includes the period of practical field application, which is recorded within the plan of the special education program, at a rate of 24 practical hours per week for an entire semester to assist the student in acquiring the professional, teaching, and behavioral competencies he needs while teaching in a class for people with disabilities or in a class attended by students enrolled in a regular school or a special education center.

Special Education Students: Students enrolled in the Special Education Program of the Faculties of Education in Jordanian Universities.

The Covid-19 pandemic: the period that coincided with the emergence of a family of viruses that may cause disease in animals and humans; it results in human respiratory diseases ranging in severity from the common cold to more severe diseases such as Middle East Respiratory Syndrome and Severe Acute Respiratory Syndrome (SARS), and was characterized by a rapid spread (WHO, 2019).

The Study Limits and Limitations

Human boundaries: The human borders were represented by the practical training students enrolled in the practical training course from private and public universities.

Temporal boundaries: The temporal boundaries were represented in the academic year 2020-2021.

Spatial boundaries: The spatial boundaries were represented in private and public universities in Jordan.

Determinants of the Study

The determinants of the study were the possibility of generalization through the sample's representation of the study population. And the study sample's objectivity in answering the tool's items

Previous Studies

The researcher was able to review several studies that dealt with the variables of the study, which are the impact of the Covid-19 pandemic on pre-service teacher training and preparation programs, as well as other studies related to self-efficacy and its relationship to practical training, which are as follows:

The study of Nathan, 2020 showed that the pre-service teacher training programs witnessed a gradual change, as the Covid-19 pandemic had an impact on bringing about this change and was considered a major catalyst, which led to the emergence of modern techniques that affected the process of student assessment, as well as the emergence of the need to introduce technology into the teaching and training process. There were alternative models for training instead of the previous traditional methods. The study tried to shed light on the policies related to ensuring the quality of teacher training and the credibility of evaluation due to the pandemic and presented the opposition and support ideas regarding the practical training program for teachers that followed the sudden closure of schools and universities, which in turn posed a dilemma in training and evaluation. It stressed the importance of the program in preparing students to be responsible for their tasks in the future, as the training period is an essential stage in the professional development process for teachers.

On the other hand, a study conducted by (Draissi, Yong, 2020) aimed to know the response plan to the outbreak of the (COVID-19) epidemic and the implementation of distance education in Moroccan universities; the researchers examined various documents consisting of daily newspaper news articles, reports, and notices from the university's website. The study used a content analysis method, and the results of the study indicated that what is worrying is that the COVID-19 pandemic has challenged universities to continue to overcome the difficulties facing both students and teachers. As well as invest in scientific research and based on the employment of modern and developed teaching methods that led to increased independence for the student and provided free access to a few paid e-learning platforms or databases.

Yulia (2020) conducted a descriptive study aimed at clarifying how the Corona pandemic affected the reshaping of education in Indonesia, where it explained the types and learning strategies used by teachers in the world via the Internet due to the closure of universities to limit the spread of the epidemic Coronavirus. The study also clarified the advantages and effectiveness of using online learning, as the study concluded that there is a high-speed of the impact of the Corona epidemic on the education system, where the traditional method of education has declined to spread instead of learning through the Internet because it supports learning from home and thus reduces the mixing of individuals with each other, and reduces the spread of the virus. Furthermore, the study proved the importance of using various strategies to increase the smoothness and improvement of education through the Internet.

In another study, Sasaki et al. (2020) came to present a proposal to employ virtual reality in training students of faculties of education (trained teachers) to deal with students by simulating real classroom situations. The results of the study showed a high level of satisfaction, as expressed by the trainee students in the interviews conducted with them after completing the training process and the feedback provided by the students through a survey of their views on the experience. Furthermore, the students felt self-confident and able to deal with students in realistic situations, and the training via virtual reality allowed them to experiment with many experiences and even modify behavior and deal with the behavioral problems that students appear to in normal classroom situations.

While the study (Kidd & Murray, 2020) revealed the impact of the Covid-19 pandemic on teacher training and preparation in the practical training program in England. The study showed the positive impact of the pandemic on the transition of the traditional training process to the digital training process or through the use of technology and the Internet; this contributed to creating an environment simulating the natural

environment, in which students were able to simulate traditional training and acquire the necessary skills, specifically the skills of employing technology in teaching, and created opportunities for the trainees to be creative and demonstrate their skills.

Al-Samman (2020) conducted a study to evaluate the effectiveness of a training program in improving the level of knowledge of behavior management strategies for children with emotional and behavioral disorders and raising the level of self-efficacy among special education teachers. The study sample consisted of (53) students; they were divided into two groups, one of them was an experimental group to whom the training program was applied, and the second was a control group that did not receive the program. The following tools were used: A scale of the level of knowledge of strategies for managing the behavior of children with emotional and behavioral disorders (and a scale of self-efficacy. The program consisted of six sessions, three sessions per week, for eighteen hours. The results of the study showed the effectiveness of the training program in raising the level of student-teacher knowledge of behavior management strategies for children with emotional and behavioral disorders and in, increasing their self-efficacy and in maintaining a high level of both the degree of knowledge and self-efficacy for two weeks after the end of the training program.

A study conducted by Hammad and Muhammad (2018), which was conducted in Najran, Saudi Arabia, aimed to investigate the effectiveness of field training for students of the Special Education Program and its impact on their perceived self-efficacy level, as well as reveal the relationship between perceived self-efficacy and their attitudes towards teaching students with learning difficulties. Whether there are differences in perceived self-efficacy according to the gender variable, the study sample consisted of (92) teacher students, of whom (40) teacher students and (52) female teacher students, and the study tools consisted of a scale of perceived self-efficacy and a scale of attitudes towards teaching people with learning difficulties. The study's results indicated a positive correlation between self-efficacy and attitudes towards teaching people with learning difficulties. The results also indicated the effectiveness of practical training for students of the special education program in developing their perceived self-efficacy and attitudes towards people with learning difficulties. It also indicated that there were no statistically significant differences between male and female student teachers after applying for the program in the level of self-efficacy for each of them. At the same time, there were statistically significant differences between male and female student teachers after applying for the program in the trend toward those with difficulties in favor of female student teachers.

While Al-Othman and Al-Ghunaimi (2013) conducted a study aimed at investigating the self-efficacy of teachers of students with autism spectrum disorder and its relationship to their attitudes towards their students in the light of some variables such as years of experience, participation in training courses, and educational level, the study sample included (60) teachers. The descriptive approach and the self-efficacy scale were used. The results showed the highest dimensions of self-efficacy among teachers of students with autism spectrum disorder after personal competence, followed by teaching effectiveness. The results also revealed significant differences in perceived self-efficacy, years of experience, educational level, and participation in training courses, in favor of the most professional, educational level, and the number of training courses attended.

Nawafilah and Al-Omari's (2013) study aimed to reveal the level of self-efficacy in teaching science by a survey among students of practical education at Yarmouk University and whether this differs according to the variables of gender and estimation at the university. To achieve the purpose of this study, the researchers used the self-efficacy scale prepared by Smolek, Zimbal-Sol, and Yoder. The sample size was (192) male, and female students enrolled in the practical education course in the second semester of the academic year 2010/2011. The results showed that the survey's self-efficacy level in teaching science was lower than the educationally acceptable level (80%), with a significant difference at the level ($\alpha = 0.05$). Furthermore, the results also revealed a significant difference ($\alpha = 0.05$) in the level of competence on the scale as a whole, and in the field of personal self-efficacy, due to the estimation at the university, in favor of students with excellent grades compared to those with acceptable grades. At the same time, there were no significant differences due to gender, whether on the scale or any of its domains.

As well as Abdul Azim's (1990) study aimed at assessing the level of satisfaction of students of practical training with the training program that has been received, the sample of the study that was conducted in Riyadh in the Kingdom of Saudi Arabia included 268 students from the College of Education, in the study, the descriptive approach was used. The results of the study showed a low level of perceived self-efficacy among the students, as they declared their dissatisfaction with many matters related to the following aspects: the method of evaluation, the duration of the training, poor training capabilities, the lack of clear feedback, and the difference in work style between the supervisors of the training, these results do not differ from the results of another study conducted by (Adebi & Badr, 1990) in the Kingdom of Bahrain on a sample of (120) male and female students from the College of Education. However, the results showed many problems, the most important of which are poor evaluation, poor follow-up, supervision and direction, the inappropriateness of activities to the objectives to be achieved, and lack of benefit from some theoretical materials. In addition, other problems related to school management and classroom practice made them feel insufficient to carry out the tasks assigned to them later as teachers.

Commenting on Previous Studies

When looking at the previous studies, we note that they included all the current study variables and tried to shed light on the relationship between the practical training stage and its impact on the perceived self-efficacy of student teachers. We note many studies in different disciplines that dealt with this aspect, while other studies dealt with the negative and positive effects of the Covid-19 pandemic, as it, on the one hand, contributed to stopping the traditional methods of training students, and on the other hand, satisfactory alternatives have been found for some. Studies have observed the positive impact of employing modern technology and virtual reality applications in training students by simulating natural situations in the ordinary classroom. The majority of studies relied on the descriptive approach to achieve their goals, and what distinguishes the current study is that it is one of the first few studies that dealt with study variables in Jordan and focused on measuring the perceived self-efficacy of teachers trained in the transitional phase between study and employment in the Covid-19 pandemic.

Study Approach

To achieve the objectives of the study, the descriptive approach was followed.

The Study Population and Its Sample

The study population consisted of all students enrolled in the practical training program in private and public Jordanian universities, estimated at (400) students during the academic year 2020-2021, while the study sample consisted of (150) male and female students who were chosen intentionally as follows:

Table 1. Description of the study sample according to its variables

Variable		N
University type	Governmental	105
	Private	45
Gender	Male	30
	Female	120
Duration and type of training	Less than a semester and intermittent	35
	Less than a semester and continuing	12
	A full and intermittent semester	33
	A full and continuous semester	70

The study tool: To achieve the objectives of the study, a scale of perceived self-efficacy was developed after referring to several related measures, and previous studies, such as (Hammad, Muhammad, 2018; Abdul Azim, 1990; Al-Othman, Al-Ghunaimi, 2013; Nawafilah, Al-Omari, 2013), where the scale consisted of (39) items distributed on three dimensions: (teaching skills and behavior modification, employing technology, management and communication, and social responsibility) and all items are positive except for the following items: (35/37/38/39).

The Validity of the Study Tool

Content validity

The study tool was presented in its initial form to a group of arbitrators from faculty members specializing in special education, measurement, and evaluation. The modifications were made in light of the observations that were made, and the tool in its final form consisted of (39) items.

Indicators of construct validity

The study tool was applied to an exploratory sample from outside the primary study sample, and the correlation coefficients for each paragraph were extracted with the total score and the dimension to which it belongs. The values of the correlation coefficients between the item and the total score ranged between (0.47 – 0.68). The correlation coefficients between the item and the domain to which it belongs ranged between (0.57-0.68), all of which are suitable for the current study and indicate that the tool has an appropriate constructive validity.

Reliability of the study tool

The reliability of the study tool was verified by applying it to an exploratory sample that consisted of (25) male and female students from outside the main study sample. The reliability was extracted in two ways: The first method is the test and retest and the internal consistency method in terms of Cronbach's alpha equation, and Table (2) shows that.

Table 2. The values of the reliability coefficients using the internal consistency method in terms of the Cronbach's alpha equation

Dimension	Items	Internal consistency values in terms of Cronbach's alpha	Pearson correlation coefficient values (test/retest)
Teaching skills and behavior modification	25	0.79	0.78
Technology Employment	6	0.87	0.86
Management, Communication, and Social Responsibility	8	0.80	0.78
Overall degree	39	0.88	0.85

It is noted from the results of Table (2) that the values of reliability coefficients by the test and retest method and the internal consistency method have all been appropriate for the current study.

Correction of the study tool and the criterion of judgment

The paragraphs of the scale were answered through a quadruple grading scale as follows (agree to a large degree and take the value 4, agree with a moderate degree and take the value 3, neutral and take the value 2, disagree and take the value 1).

To judge the arithmetic averages, the following equation was extracted:

$$(The\ highest\ value\ in\ the\ scale - lowest\ value) / 3 = (4-1) / 3 = 1$$

So, the arithmetic averages are:

(1 – less than 2) low, (2 – less than 3) medium, (3 – less than 4) high.

Statistical treatment:

1. Arithmetic means standard deviations and ranks.
2. Multiple variance analysis

Study Results and Discussion

Results related to the first question: What is the perceived level of self-efficacy among students of special education who are enrolled in the practical training program during the COVID-19 pandemic and who are registered in Jordanian universities for the academic year 2020/2021?

To answer this question, the arithmetic averages, standard deviations, and ranks were extracted for the level of perceived self-efficacy among field training students in the special education specialization who are registered in Jordanian universities for the academic year 2020/2021. Table (3) shows this.

Table 3. Arithmetic averages and standard deviations of the level of perceived self-efficacy among students of field training in special education who are registered in Jordanian universities for the academic year 2020/2021

Dimension	Mean	STD	Rank	Level
Teaching skills and behavior modification	2.98	.37	2	Moderate
Technology Employment	3.45	.53	1	High
Management, Communication, and Social Responsibility	2.88	.41	3	Moderate
Overall degree	3.21	.38		High

It is noted from the results of Table (3) that the perceived level of self-efficacy among students of field training in the specialization of special education who are registered in Jordanian universities for the academic year 2020/2021 was high, reaching (3.21) with a standard deviation (0.38), the dimension of “technology employment” came in the first rank with arithmetic mean (3.45) and standard deviation (0.53), and in the last rank came the dimension “Management, Communication and Social Responsibility” with arithmetic mean (2.88) and a moderate level.

The following is a presentation of the arithmetic averages for each dimension:

First: “Teaching Skills and Behavior Modification” domain.

Table 4. Arithmetic averages and standard deviations of items of the domain “Teaching skills and behavior modification” are arranged in descending order

N	Items	Mean	STD	Rank	Level
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29	I find myself able to work with students with disabilities.	3.77	.47	1	High
4	I can formulate short-term goals	3.70	.56	2	High
28	The university trained me with a good alternative plan	3.70	.54	3	High
2	I can prepare an individual educational plan	3.63	.72	4	High
3	I can formulate long-term goals	3.62	.59	5	High
1	I can implement the current performance level	3.55	.54	6	High
19	I am well versed in modern teaching strategies	3.53	.56	7	High
21	I can document my work well	3.53	.56	8	High
9	I can deal with the individual differences of the students	3.48	.66	9	High
27	I benefited from field training despite the pandemic conditions	3.48	.69	10	High
26	I can employ various educational programs for people with disabilities	3.43	.60	11	High
32	I have confidence that I will be successful in my work	3.21	.92	12	High
33	I am ready to take a competency exam in my field	3.21	.73	13	High
6	I can adapt a curriculum suitable for people with disabilities according to the disability	3.05	.77	14	Moderate
8	I can analyze the classroom situation in all its implications	2.99	.72	15	Moderate
13	I can employ various behavior modification strategies	2.99	.73	16	Moderate
5	I can develop appropriate procedures and strategies for the objectives set	2.98	.67	17	Moderate
12	I can make a behavior modification plan	2.97	.74	18	Moderate
14	I can choose the appropriate evaluation strategies for each goal	2.94	.55	19	Moderate
7	I know how to build a curriculum for people with disabilities	2.93	.73	20	Moderate
34	I trust my ability to pass job interviews	2.55	1.07	21	Moderate
35	I think that I need more training before I can practice my profession/practice and teach	2.34	1.09	22	Moderate
38	I find myself unable to work in the field of special education	2.34	1.09	23	Moderate
39	I would like to find a job outside the field of special education	2.34	1.09	24	Moderate
10	I can work with children with disabilities in inclusive schools	1.56	1.06	25	Low

It is noted from the results of Table (4) that the arithmetic averages and standard deviations of the items of the dimension "Teaching Skills and Behavior Modification" came at the high, medium, and low levels;

they ranged between (3.77) and (1.56). For example, item (29) came in the first rank, which states that I find myself able to work with students with disabilities, with arithmetic mean (3.77) and a standard deviation (0.47), and in the last rank came item (10), which states "I can work with children with disabilities in inclusive schools" with arithmetic mean (1.56) and a standard deviation (1.06).

Second: "Technology Employment" dimension.

Table 5. Arithmetic averages and standard deviations of items of the domain "Technology Employment" are arranged in descending order

N	Items	Mean	STD	Rank	Level
20	I can use educational technology in the performance of my work.	3.58	.55	1	High
11	I can use computers to teach technology to students with disabilities.	3.50	.69	3	High
24	I can plan well and effectively to perform my work by employing technology.	3.39	.82	4	High
23	I can organize time and use it with the help of technology.	3.37	.67	5	High
25	I can communicate well with officials.	3.34	.78	6	High
22	I can control and manage the classroom through the use of technology.	2.99	.56	2	Moderate

It is noted from the results of Table (5) that the arithmetic averages and standard deviations of the items of the domain "Technology Employment" came at the high and average levels, as they ranged between (3.58) and (2.34). Item (20), which states, "I can employ educational technology in the performance of my work," came in the first rank with an arithmetic mean (3.58) and a standard deviation (0.55), and in the last rank came item (25), which states, "I can communicate well with officials," with arithmetic mean (3.34) and a standard deviation (0.78).

Third: "Management, Communication, and Social Responsibility" domain

Table 6. Arithmetic averages and standard deviations of items of the "Management, Communication and Social Responsibility" dimension are arranged in descending order

N	Items	Mean	STD	Rank	Level
16	I can communicate with the students properly	2.99	.56	3	Moderate
15	I can prepare an awareness seminar for the local community on issues of disability and people with disabilities .	2.98	.65	3	Moderate
31	I can work within a communication skills team.	2.98	.61	3	Moderate
17	I can communicate well with the parents of students	2.97	.59	3	Moderate
30	I can prepare brochures for the field of special education	2.96	.70	3	High
18	I possess communication and communication skills	2.95	.64	3	Moderate
37	I feel insecure about my ability to deal with students with disabilities	2.34	1.09	3	Moderate

36	I can do a training course or a workshop in the field of special education	1.56	1.08	3	Low
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It is noted from the results of Table (6) that the arithmetic averages and standard deviations of the items of the domain "management, communication and social responsibility" came at the high and medium levels, as they ranged between (3.99) and (1.56).

Item (16) came in the first place, which stipulated "I can communicate with students appropriately" with an arithmetic mean (2.99) and a standard deviation (0.56), and in the last rank came item (36), which states, "I can do a training course or workshop in the field of special education," with a mean of 1.56 and a standard deviation of 1.08. The researcher attributes this result to the fact that universities have had to resort to employing modern technology in training and education for the continuity of education. Since the beginning of the pandemic, they have been keen to hold training workshops to increase students' efficiency in technological skills, specifically the employment of educational technology. A high level of satisfaction was observed among the students, who felt more confident in dealing with students with disabilities. At the same time, the researcher attributes the advent of management, communication, and social responsibility in the last rank to the lack of opportunity for students to interact and communicate directly and in-person with students, parents, and the community, which affected the students' sense of their professional competence in this field, on the other hand. Both teachers and students realized that the era needs to master the skills of employing technology in many areas of life and that it is an inevitable way to keep pace with developments in the educational process; this is indicated by previous theoretical literature on the subject and studies such as the study of Kidd & Murray, 2020; Sasaki et al. 2020 Yulia, 2020, which focused on the positive effects of employing technology and the skills it reflected on students that made them feel satisfied and a high level of confidence. The results of the first question differed from the results of both Abdul-Azim 1990 and the study of Nawafilah and Al-Omari 2013, where the level of self-efficacy was at a low level, knowing that the conditions of application of the two studies were different and were not conducted in light of the Covid pandemic (19). Also, this result partly differed from the study of Al-Othman, and Al-Ghunaimi (2013), which indicated that personal competence ranked first, followed by teaching skills.

Results related to the second question: Are there statistically significant differences at the level ($\alpha = 0.05$) between the arithmetic averages of the study sample scores on the perceived self-efficacy scale due to the variables: university type (governmental, private), student gender and training type (intermittent, continuous), and for how long?

To answer this question, the arithmetic averages and standard deviations of the perceived self-efficacy of field training students in the special education specialization registered in Jordanian universities for the academic year 2020/2021 were extracted according to the study variables, and Table (7) shows this.

Table 7. Arithmetic averages of the level of perceived self-efficacy among students of field training in the specialization of special education who are registered in Jordanian universities for the academic year 2020/2021 according to the study variables: gender, type of university (public, private), type and duration of training

Type of university		Mean	Standard deviation
Teaching skills and behavior modification	Governmental	3.23	.39
	Private	3.38	.31
Utilizing Technology	Governmental	3.37	.57
	Private	3.62	.37
	Governmental	3.15	.43

Management, Communication, and Social Responsibility	Private	3.33	.32
Overall degree	Governmental	3.23	.40
	Private	3.41	.31
Gender		Mean	Standard deviation
Teaching skills and behavior modification	Male	3.37	.35
	Female	3.26	.38
Utilizing Technology	Male	3.60	.36
	Female	3.43	.55
Management, Communication, and Social Responsibility	Male	3.41	.26
	Female	3.17	.42
Overall degree	Male	3.41	.32
	Female	3.27	.39
Duration of training		Mean	Standard Deviation
Teaching skills and behavior modification	Less than a semester and intermittent	3.08	.37
	Less than a semester and continuous	3.14	.33
	A full and intermittent semester	3.34	.31
	A full and continuous semester	3.36	.37
Utilizing Technology	Less than a semester and intermittent	3.26	.55
	Less than a semester and continuous	3.32	.35
	A full and intermittent semester	3.44	.42
	A full and continuous semester	3.57	.56
Management, Communication, and Social Responsibility	Less than a semester and intermittent	3.04	.46
	Less than a semester and continuous	2.99	.32
	A full and intermittent semester	3.29	.31
	A full and continuous semester	3.28	.41
Overall degree	Less than a semester and intermittent	3.10	.38
	Less than a semester and continuous	3.14	.32
	A full and intermittent semester	3.35	.30

	A full and continuous semester	3.38	.39
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It is noted from the results of Table (7) that there are apparent differences between the arithmetic averages of the level of perceived self-efficacy among students of field training in the specialization of special education who are registered in Jordanian universities for the academic year 2020/2021 according to the study variables: Gender, type of university (public, private), type and duration of the training, and to find out whether these differences are statistically significant, a multivariate analysis was extracted, and Table (8) shows that.

Table 8. The results of the analysis of multiple variiances to examine the significance of the differences between the arithmetic averages of the level of perceived self-efficacy among students of field training in special education who are registered in Jordanian universities according to the study variables: type of university (public, private), gender, type and duration of training

Source of variance	Domains	Sum of squares	df	Mean of squares	F value	Sig
Type of university	Teaching skills and behavior modification	.606	1	.606	5.102	.025
	Utilizing technology	1.303	1	1.303	5.037	.026
	Management, Communication, and Social Responsibility	.413	1	.413	2.847	.094
	Overall degree	.650	1	.650	5.240	.024
Gender	Teaching skills and behavior modification	.014	1	.014	.119	.731
	Utilizing technology	.035	1	.035	.134	.715
	Management, Communication, and Social Responsibility	.489	1	.489	3.372	.068
	Overall degree	.062	1	.062	.496	.482
	Total	.394	1	.394	3.175	.077
Type and duration of training	Teaching skills and behavior modification	2.752	3	.917	7.728	.000
	Utilizing technology	2.842	3	.947	3.663	.014
	Management, Communication, and Social Responsibility	2.791	3	.930	6.411	.000
	Overall degree	2.727	3	.909	7.329	.000
ERROR	Teaching skills and behavior modification	16.973	143	.119		
	Utilizing technology	36.981	143	.259		
	Management, Communication, and Social Responsibility	20.748	143	.145		
	Overall degree	17.739	143	.124		
Total	Teaching skills and behavior modification	1628.182	150			
	Utilizing technology	1826.000	150			
	Management, Communication, and Social Responsibility	1565.750	150			
	Overall degree	1641.723	150			

It is noted from the results of Table (8) that there are statistically significant differences between the arithmetic averages of the level of perceived self-efficacy among students of field training in the specialization of special education who are registered in Jordanian universities according to the type of university (public/private) on the total degree and all dimensions except for the dimension (management,

communication, and social responsibility). The significance values of these dimensions were less than (0.05) except for the dimension (management, communication, and social responsibility), where the significance value of "F" was more significant than (0.05), and in favor of private universities. The researcher attributes this result to the fact that private universities have more potential to employ technology in training and teaching than some public universities. On the other hand, the number of students registered in courses is less than those registered in public universities, and therefore the field training course instructor can follow up on students more. Also, we find the competitiveness in university outputs from students who supplement the labor market and possess teaching competencies in private universities, in general, more than in public universities. The results of Table (8) also did not show the existence of statistically significant differences between the arithmetic averages of the level of perceived self-efficacy among students of field training in the specialization who are registered in Jordanian universities, according to the student's gender, on the total score and all dimensions, the significance values of "F" were more significant than (0.05) for both the total degree and the dimensions. The researcher attributes this result to the fact that both sexes join the same training program for the same period, and they participate in receiving the same training and on the same plan. Therefore, the skills they were trained on are similar according to the course description in the training program. From the researcher's point of view and her experience in practical training, the alternative methods, the employment of technology, and the facilities it provided in the training process also contributed to the similar experiences provided to both males and females.

On the other hand, the similarity of cognitive characteristics at this stage may also justify this result, and this result is consistent with the findings of the study of Hammad and Muhammad (2018) and Nawafilah and Al-Omari (2013). The results showed statistically significant differences between the arithmetic averages of the level of perceived self-efficacy among students of field training in special education students registered in Jordanian universities. According to the different duration of training on the total degree and all dimensions, the significance values of "F" values were less than (0.05), and to find out the return of the differences for these dimensions, Scheffe's test was extracted for dimensional comparisons, and Table (9) shows that.

Table 9. The results of an oral test to examine the significance of the differences between the arithmetic averages, according to the difference in the level of perceived self-efficacy among students of field training in the specialization of special education who are registered in Jordanian universities, according to the duration of the training

Domains	(I) period	(J) period	Mean Difference (I-J)	Sig.
Teaching skills and behavior modification	Less than a semester and intermittent	Less than a semester and continuing	-.0622	.962
		A full and intermittent semester	-.2595	.025
		Full and continuous semester	-.2794	.002
	Less than a semester and continuing	Less than a semester and intermittent	.0622	.962
		A full and intermittent semester	-.1973	.413
		Full and continuous semester	-.2172	.258
	A full and intermittent semester	Less than a semester and intermittent	.2595	.025
		Less than a semester and continuous	.1973	.413
		A full and continuous semester	-.0200	.995

Technology Employment	Less than a semester and intermittent	Less than a semester and continuous	-.0623	.987
		A full and intermittent semester	-.1823	.537
		Full and continuous semester	-.3143	.034
	Less than a semester and continuous	Less than a semester and intermittent	.0623	.987
		A full and intermittent semester	-.1199	.921
		Full and continuous semester	-.2520	.475
	A full and intermittent semester	Less than a semester and intermittent	.1823	.537
		Less than a semester and continuous	.1199	.921
		A full and continuous semester	-.1320	.680
Management, Communication, and Social Responsibility	Less than a semester and intermittent	Less than a semester and continuous	.0497	.985
		A full and intermittent semester	-.2524	.063
		Full and continuous semester	-.2446	.025
	Less than a semester and continuous	Less than a semester and intermittent	-.0497	.985
		A full and intermittent semester	-.3021	.142
		Full and continuous semester	-.2943	.111
	A full and intermittent semester	Less than a semester and intermittent	.2524	.063
		Less than a semester and continuous	.3021	.142
		Full and continuous semester	.0077	1.000
Overall degree	Less than a semester and intermittent	Less than a semester and continuous	-.0393	.990
		A full and intermittent semester	-.2461	.044
		Full and continuous semester	-.2777	.003
	Less than a semester and continuous	Less than a semester and intermittent	.0393	.990
		A full and intermittent semester	-.2069	.389
		Full and continuous semester	-.2384	.201
	A full and intermittent semester	Less than a semester and intermittent	.2461	.044
		Less than a semester and continuous	.2069	.389
		Full and continuous semester	-.0315	.981

It is noted from the results of the Scheffe test for dimensional comparisons that the differences between the arithmetic averages of the level of perceived self-efficacy among students of field training in the specialization who are registered in Jordanian universities, according to the duration of the training, are attributed to those with the training period "a full and continuous semester" and "a full and intermittent semester", when comparing them with other training periods. The researcher justifies this result because the training period and its duration, the longer and more continuous it will lead to exposing students to

more qualitative experiences, and therefore the result are logical; allowing students to train continuously leads to students staying in training and thus acquiring more skills. This result partially agrees with the study of Al-Othman, and Al-Ghunaimi (2013), which referred to enrollment in training courses and experience, assuming that it corresponds to the higher period in training and its impact on raising the level of perceived self-efficacy of teachers in their ability to deal with students with disabilities.

Recommendations

The researcher was able to reach the following recommendations in light of the conclusions:

- Provide supportive training programs for student teachers that would raise their perceived self-efficacy.
- Pay attention to the practical training program and find suitable alternatives for training and evaluation that guarantee the quality of training.
- Emphase the need for student teachers for continuous support during their pre-service preparation and the need to follow up during their service.
- Conduct more studies to know the impact of the Covid-19 pandemic on the educational process and the plans of higher education institutions to find solutions to the expected problems.

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