

Teachers' Perceptions of Preparedness for Teaching Students with Mild to Moderate Disabilities in Inclusive Education in Kuwait

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HOW TO CITE:

Alazemi, B., & Larkins, R. (2025).
Teachers' Perceptions
of Preparedness for Teaching
Students with Mild
to Moderate Disabilities
in Inclusive Education in Kuwait.
*International Journal
of Special Education*, 40(1), 1-12.

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DOI:

<https://doi.org/10.52291/ijse.2025.40.1>

ABSTRACT:

This study explored 324 pre-service teachers' perceptions of their preparedness for inclusive education in Kuwait and examined variables contributing to these perceptions. A cross-sectional survey was used to answer research questions relating to preparedness. Findings revealed that the participants did not perceive themselves to be sufficiently prepared to teach students with disabilities in implementing differentiated strategies, working with parents to plan educational programs, identifying assistive technology, and helping students with social interactions and transitions. Participants' perceptions were significantly improved across variables if they completed introductory and pedagogy courses in special education. Variables such as academic year and academic programs also affected the outcome. Recommendations for further improvement of pre-service teacher education programs were addressed.

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Keywords: Inclusive Education, Mild/moderate Disabilities,
Pre-Service Teacher, Teachers' Perceptions of Preparedness

INTRODUCTION

Worldwide, many nations call for providing free access and appropriate inclusive education (Alquraini, 2011; Hauerwas & Mahon, 2018; Humaira et al., 2021) as inclusive education overcomes stereotype challenges, increases learning opportunities and offers the best learning environment (Union, 2015). Inclusive education can be defined as educating students with disabilities in general education settings alongside those without disabilities, for them to learn together, by providing appropriate educational opportunities to the maximum extent to achieve better outcomes in terms of learning and integration with society (Kurth et al., 2015). UNESCO (2008), through its International Bureau of Education (IBE), has outlined a broader understanding of inclusive education by considering all components in the school system, including teachers, curriculum, and the school environment, including all children who differ from typically developing children such as disability, disorders, Gender, Race, Socioeconomic Class, etc. Inclusive education emphasizes the importance of content and pedagogy knowledge as well as the ability to teach students who are diverse in culture, language, intellectual, and learning ability, which is also required of general education classroom teachers (IDEA, 2004; NCLB, 2001; UNESCO, 2008). Inclusive education demands that teachers be provided with the appropriate knowledge and skills to teach students with diverse learning abilities through the use of pre-service education and training about inclusion, among others (Forlin, 2010; Humaira et al., 2021; UNESCO, 2008).

Students with mild and moderate disabilities face unique challenges in inclusive education settings, necessitating different levels of support. Mild disabilities typically allow students to participate in general education classes with minimal accommodations, including learning disabilities such as dyslexia and mild intellectual disabilities (Smith & Tyler, 2010). These students benefit from targeted support but can often engage in regular classroom activities with some instructional modifications. In contrast, moderate disabilities, like moderate intellectual disabilities and certain cases of autism spectrum disorder (ASD), require more intensive interventions. Students with moderate disabilities often need tailored instruction, specialized curricula, and significant support to succeed in inclusive settings (Friend & Bursock, 2018).

General education pre-service teachers in early childhood and elementary and secondary education programs frequently lack inclusive education knowledge and skills;

they have insufficient knowledge and limited training in the field of special education and often feel unprepared to teach students with special needs in inclusive classrooms (Forlin & Chambers, 2011; Peebles & Mendaglio, 2014). Authentic inclusive education for students with disabilities is achieved by ensuring that the education system has highly qualified teachers who are equipped with content and pedagogical knowledge and have the ability to succeed in completing tasks. Even though curriculum and the school environment are essential, the strongest indicator of a teacher's effectiveness is their belief in their preparedness to teach, which is described as their confidence in their ability to carry out a task (Bandura, 1997). A body of literature links teachers' perceptions, attitudes, and feelings to their preparation for teaching students in inclusionary settings (Attwood et al., 2019; Humaira et al., 2021; Zagona et al., 2017). Assessing educators' preparedness to teach students with disabilities is an essential step in addressing teachers' needs, followed by using that information in the pre-teacher education system to ensure that early career educators are prepared to work in inclusive classrooms.

While positive teacher perceptions are capable of overcoming the philosophical obstacles to inclusion and special needs instruction, they are not always equated to feelings of teachers' preparedness toward the reality of teaching students with special needs (Attwood et al., 2019; Rowan & Townend, 2016). A national survey of science teachers in the United States revealed that these educators perceived themselves as unprepared to teach and assist students with disabilities in social interactions, as they possessed little formal training and had thus encountered institutional barriers in the implementation of inclusion (Kahn & Lewis, 2014). In a review performed by Peebles and Mendaglio (2014), it was concluded that though most teachers held positive beliefs and attitudes regarding inclusive education, the teachers felt they lacked sufficient preparedness to teach students with exceptional needs, particularly those with emotional or behavioral disorders, or severe learning disabilities. This lack of confidence in the preparedness of pre-service teachers is corroborated by Fayez et al. (2011), whose qualitative study found that although pre-service teachers had positive attitudes regarding the idea of inclusive instruction as the right of students with special needs, they felt that their course on mandatory inclusion offered a limited understanding of the practical skills required in classroom environments. This is also evident in another research by Livers et al., (2021) who found that elementary teacher candidates felt well prepared in planning

lessons, but less prepared than they thought they would be for managing the classroom, making accommodations and modifications, and assessing students. Livers and his colleagues pointed out that the opportunities to put theory into practice in real classroom settings and practical learning strategies during coursework had the strongest effects on elementary teacher candidates' emotions of preparation across three United States institutions.

Researchers have found that teachers' preparedness to teach inclusive classrooms varies across several socio-demographic variables such as academic major, number of special education courses, academic program (elementary/secondary), and type of service (pre- and in-service) (Aldabas, 2020; Rowan & Townend, 2016; Stites et al., 2018; Zagona et al., 2017). A mixed methods study by Rowan and Townend (2016) investigated 971 early-career Australian teachers' beliefs about their preparedness to meet the needs of students with diverse learning abilities. The study found that the newly graduated teachers from various types of programs (primary, secondary, and special education settings) felt less prepared to (1) teach students with diverse abilities, (2) support students with disabilities, and (3) communicate sensitively with caretakers and parents. Moreover, Rowan and Townend found that teachers' perceptions of preparedness differed across the variables of gender (in favor of women), age (in favor of 35-39-year-olds), academic qualification (in favor of a Bachelor's degree), and education school level (secondary education teachers felt the least prepared).

Aldabas (2020) found that special education teachers were confident and felt prepared to teach students with severe disabilities in an inclusive education setting. However, Aldabas pointed out that those participants who had less work experience and who taught students at lower grades in general education classrooms with moderate and severe intellectual disabilities and multiple disabilities showed the lowest level of confidence in their preparedness to teach students with severe disabilities. Aldabas' findings aligned with the results of Ruppert et al. (2016), who examined 104 special education teachers' perceptions of preparedness to teach students with severe disabilities and assessed these perceptions across several variables such as type of teaching license, level of education, and experience level. Ruppert and his colleagues found that participants showed higher perceptions of preparedness in managing educational programs (e.g., tracking students' progress toward goals and collaborating with parents and professionals) than in providing services (e.g., incorporating assistive technology, universal learning design, communication, and support-

ing students' transition and medical needs) to students with severe disabilities. Also, Ruppert and his colleagues found that participants with a cross-categorical (generalist) teaching license perceived themselves as less prepared to communicate with, instruct, and meet the intensive medical needs of students with severe disabilities. Furthermore, results indicated that special education teachers with a master's degree felt more prepared to teach students with severe disabilities.

Several studies have compared teachers' perceptions across different teacher preparation programs (Stites et al., 2018; Zagona et al., 2017). Stites et al. (2018) examined 120 early childhood and elementary pre-service teachers' perceptions of their needs related to inclusion. Participants were recruited from two universities, from both special and general education teacher preparation programs. The results revealed that both special and general education pre-service teachers had an unclear understanding of how inclusion worked in practice, and further development was needed for them to be fully prepared to teach in inclusive settings. However, researchers found that pre-service teachers from early childhood programs perceived themselves as slightly better prepared for inclusive settings. Zagona et al. (2017) also found a significant relationship between demonstrating inclusive practices and the type of teacher programs, both special and general education. They concluded that special education teachers were more likely to report inclusive practices such as individualizing instructions, adapting content, collaborating skills, and participating in individualized education program teams.

Research suggests that to improve teachers' feelings of being prepared for the instruction of students with special needs, the practical aspects of teacher education need to be enhanced (Attwood et al., 2019; Forlin, 2010). Although the education model of most teacher education programs prepared pre-service teachers for special educational needs instruction in terms of theory, the practical aspects of instruction delivery were limited for these pre-service teachers (Hodkinson, 2009). When only a single unit of study in inclusive education has been added as part of the teacher education curriculum, higher levels of stress regarding the teaching of students with disabilities have been noted (Forlin & Chambers, 2011). It has been also evident that there is a positive relationship between teachers' preparedness for inclusive education and whether they had taken courses or were trained in inclusive education (Zagona et al., 2017).

The current study explored Kuwaiti general education pre-service teachers' perceptions of their preparedness to

teach students with mild to moderate disabilities in inclusive education settings. It also examined how these perceptions vary across demographic variables, including academic level (freshman, sophomore, junior, or senior), academic major (science versus liberal arts), and academic program (elementary versus secondary education). Despite the increasing emphasis on inclusive education, little is known about how well-prepared Kuwaiti teachers feel to meet the needs of students with disabilities.

In Kuwait, pre-service general education teachers are often highly qualified to teach content at their chosen grade levels. However, they receive limited coursework in special education content and pedagogy as part of their teacher preparation programs (Alazemi, 2021). This lack of preparation leaves many feeling unprepared to effectively teach students with disabilities. Thus, evaluating pre-service teachers' perceptions of their preparedness to teach students with disabilities provides crucial insights into areas where teacher preparation programs must improve and the professional development programs that should be offered.

Kuwaiti students with mild to moderate disabilities, such as learning and intellectual disabilities, are educated in various settings, including segregated special education schools, specialized classrooms within general schools, or general classrooms alongside students without disabilities (Alazemi, 2021; Ministry of Education, 2014). In general classrooms, students with disabilities are sometimes taught by general education teachers who are required to complete a professional training course in special education provided by the Ministry of Education. This training aims to provide foundational knowledge in special education and prepare teachers to meet the needs of students with disabilities.

Additionally, the Kuwaiti Law of the rights of persons with disabilities (Kuwait Law No. 8/ 2010; 2010) emphasizes the importance of preparing and providing qualified educators to support inclusive education. However, despite these legal mandates and training requirements, teacher preparation programs often lack adequate knowledge and training in special education. As a result, many general education teachers remain underprepared to teach students with disabilities effectively.

Given the lack of knowledge regarding Kuwaiti pre-service teachers' perceived preparedness to teach students with mild or moderate disabilities, this study utilized a survey to address the following research questions:

- (1) How prepared are general education pre-service teachers to teach students with mild and/or moderate disabilities in inclusive education?

- (2) Are there any significant differences across demographics such as academic year level, academic major, and academic program in the participants' perceptions of preparedness to teach students with mild and/or moderate disabilities such as intellectual or learning disabilities in inclusive education?
- (3) Are there differences in perceptions of preparedness in terms of academic coursework between participants who complete one or more of two special education courses and those who do not?

MATERIALS AND METHODS

Participants and settings

A nonprobability convenience sampling method was applied to select participants matching the selection criteria of this study. The participants included pre-service teachers attending the general education teacher preparation program at the College of Education of a public university in Kuwait. The survey was sent to 653 students and a total of 324 pre-service teachers participated in the current study. About 77.5% of the total sample majored in the humanities, around 53.4% were in secondary school programs and the highest percentage of respondents in terms of class (46%) were sophomore students. As seen in Table 1, approximately 92% were female participants, while approximately 7% were male participants. Around 72% of the participants indicated that they were studying or had completed an introductory course in special education, and 46 % revealed that they were studying or had completed a course on teaching methods in special education. (Table 1.)

Instrument

In this study, a cross-sectional survey method was utilized to collect the data to answer the research questions. The survey questionnaire used in this study consisted of two parts. The first part addressed the demographic information of the sample, such as academic major, academic program, completion of an Introduction to Special Education course, and completion of a Teaching Method in Special Education course. The second part of the questionnaire was based on the study by Aldabas (2020), where the researcher measured the perceptions of special education teachers regarding their preparedness to teach students with severe disabilities using Likert-scale statements. This part of the survey consisted of 31 items that reflected the participants' perceptions of their preparedness to teach and work in the inclusive education field. These items were distributed on six sub-scales developed

Table 1. The responses of 324 pre-service teachers

Variable	Category	Frequency	Percentage
Gender	Male	24	7.4%
	Female	300	92.6%
Academic major	Humanities field	251	77.5%
	Science field	73	22.5%
Academic program	Elementary	151	46.6%
	Secondary	173	53.4%
Academic year	Freshmen	31	9.6%
	Sophomore	149	46%
	Junior	74	22.8%
	Senior	67	20.7%
Courses			
Completed ISE course Only		100	30.9%
Completed TMSE course Only		17	5.2%
Completed both courses		134	41.4%
Completed neither course		73	22.5%

by Aldabas (2020) based on a review of relevant literature (Alquraini & Rao, 2017). Each sub-scale aligns with essential skills for teachers working with students with disabilities (SWD) in inclusive settings: (a) Collaboration and Teamwork Skills, (b) Using Effective Instructional Methods, (c) Skills for Implementation of Inclusion, (d) Skills for Planning and Implementation of Behavioral Interventions, (e) Skills for Accessing General Education Curriculum, and (f) Skills for Transition Planning (p. 4).

In the current study, the researcher reformulated some of the questionnaire's items - for example, "*I have the ability to train students with mild/moderate disabilities to build friendships using appropriate methods and situations.*" - while preserving the content of the statements. The word "students" was replaced with the phrase "students with mild to moderate disability" in each item to align the survey with the purpose of the current study. In addition, the five-point Likert-type scale responses were changed from 1 (Not confident) to 5 (Very confident) to the more traditional Likert scale of 1 (strongly disagree) to 5 (strongly agree). Our primary interest was to gauge the strength of pre-service teachers' agreement or disagreement with various preparedness statements. A five-point true Likert scale effectively captures this with a clear neutral midpoint (often labeled "Neither Agree nor Disagree") and two options on each side to represent varying degrees of agreement or disagreement. However,

although a neutral value indicates a more honest approach to gauging participant perceptions (as opposed to forced-choice measurements), mean perceptions tend to be closer to 3 than to either 1 or 5 (Chyung et al., 2017).

Moreover, in order to avoid participants' misconceptions, the researcher provided definitions of certain special education terms, as these were included in the questionnaire (e.g., inclusive education, mild to moderate disabilities, universal design, individual education program (IEP) teams, modification, and accommodations).

In his study, Aldabas (2020) addressed the validity and reliability of the instrument through a panel of educators and experts and reported Cronbach's alpha for the six subscales ranging between 0.90 and 0.96 and 0.99 for the whole instrument, which indicated a high level of consistency. For testing the reliability of the current study, the researcher ran Cronbach's alpha to check for internal consistency after all data were collected. The results found this to be 0.96 for the total instrument. Reliability coefficients were found to range between 0.78 and 0.88 for the subscales. In the current study, to ensure face validity, three experts in the field of education reviewed the questionnaire and suggested minor changes, such as replacing the word "staff" with "teachers" in the following statement: "Ability to train and provide staff within the school with best practices in the education of students with SD" and rewording a few other items.

The value of the total score of the instrument may range between 31 to 155. A lower score means that respondents perceived themselves as less prepared to teach students with disabilities and vice versa. To determine the level of participants' perceptions of their preparedness in teaching students with mild to moderate disabilities, three levels (high, moderate, and low) were considered based on the following equation:

The range between each level is determined by the higher response value minus the lower response value, which is then divided by the number of levels. Therefore, $5-1=4$; $4/3=1.33$, so 1.33 equals the range between each level. Thus, values between 1.00-2.33 indicate a low mean score (perceived less prepared), values between 2.34-3.66 show a moderate mean score (neutral), and values between 3.67-5.00 imply a high mean score (perceived more prepared).

Procedures and Data Collection

To collect data, the researcher designed the electronic survey described above using Google Forms. Approval from the university Institutional Review Board was obtained before administering the survey. To recruit pre-service teachers, twenty professors at the College of Education of one public university were approached via emails and personal contact and invited to help in distributing the electronic survey to their students via the Microsoft Teams platform. All the professors showed a willingness to assist and send the survey to their students. Furthermore, multiple follow-up reminders were sent to the professors over the course of two months to encourage their students to answer the survey and increase their response rate. The link to the electronic survey was sent to the participants via Microsoft Teams and email, including a description of the purpose of the study along with a consent statement, which indicated that by answering the survey, approval for their participation in the study was being granted. No personal identifying information, including names, was collected from participants and the data were not shared with anyone outside the research team. After two weeks, the first reminder was sent to the professors to motivate the participants, and another reminder was sent after five weeks. The survey on Google Forms was turned off after two months of data collection with a response rate of 49.7%.

Participants were informed that their participation was voluntary and that their responses were confidential. No identifying information was attached to either the emails or the survey. The researcher did not personally know or interact with any participant during the study,

and only aggregated data were used to report findings. Once the survey was completed, responses were automatically uploaded to the Google Forms response spreadsheet, where the data was grouped by survey item.

Data Analysis

Data was analyzed by using the IBM Statistical Package for Social Sciences (SPSS), version 28. To answer the first research question, descriptive statistics, including frequencies, means, and standard deviations, were used. Inferential analysis, including a t-test and a series of one-way analyses of variance (ANOVA), was used to answer the second and third research questions.

RESULTS

Pre-service teachers' preparedness

To answer research question one, the total mean score for each survey item was calculated. Means and standard deviations for all items and the six subscales are presented in Table 2. The findings revealed that participants were positive about their preparedness to teach students with mild to moderate disabilities in inclusive education ($M = 3.6394$, $SD = .54929$).

Results also indicated that the mean score for the Collaboration and Teaming Skills subscale was the highest of the six subscales ($M = 3.7323$, $SD = .6679$), which indicates that the participants perceived themselves as most prepared and competent to work with, facilitate, and communicate with the IEP team members. Among all the items in the instrument, as well as the Collaboration and Teaming Skills subscale, the highest mean response was for item 3, which indicates respondents reported feeling most prepared and competent to work cooperatively with professionals within the school to support teaching the students ($M = 3.9290$, $SD = .87158$). The lowest mean score in the Collaboration and Teaming Skills subscale was for item 4 ($M = 3.5401$, $SD = .97091$), indicating that respondents reported feeling least prepared to train staff within the school in the best practices for the education of students with mild to moderate disabilities.

The findings also indicated that the mean score for the subscale Skills for Planning Transition Programs was the lowest of the six subscales. However, the score was still above 3.6 ($M = 3.6037$, $SD = .69513$), indicating that the participants perceived themselves as least prepared and competent to: discuss planning transitional goals, teach skills that help in participating in recreational activities in the community, use appropriate assessment and measurement tools for long-term planning, teach indepen-

dence skills to help in integrating into the community and teach self-determination skills.

The lowest mean score in this subscale was item 29, which indicates respondents reported feeling least prepared and competent to use appropriate assessment and measurement tools for long-term planning and to establish long-

term goals. ($M = 3.4228$, $SD = .89212$), and this was also the lowest mean score among all the items in the instrument. However, respondents reported feeling the highest prepared and competent in teaching skills that help students with mild/moderate disabilities to participate in recreational activities in the community ($M = 3.7778$, $SD = .81396$).

Table 2. Descriptive analysis of perceptions of preparedness to teach students with mild/moderate disabilities in inclusive education (N=324)

Subscale	Items#	Items	M	SD
Collaboration and Teaming Skills	1	Ability to work collaboratively with all members of the IEP team (i.e., special. ed teacher, general. ed teacher, parents).	3.7685	.85774
	2	Ability to facilitate the participation of families in the preparation and implementation of the IEP.	3.6914	.82367
	3	Ability to work cooperatively with professionals within the school to support teaching students with mild/moderate disabilities.	3.9290	.87158
	4	Ability to train and provide teachers within the school with best practices in the education of students with mild/moderate disabilities.	3.5401	.97091
Total of the subscale			3.7323	.6679
Using Effective Instructional Methods	5	Ability to monitor the progress of the students with mild/moderate disabilities to achieve their IEP goals.	3.7068	.87118
	6	Ability to explain and analyze the progress of the students with mild/moderate disabilities on their IEPs.	3.5556	.86915
	7	Ability to use methods of motivation and stimulation in teaching skills and behaviors.	3.8210	.84681
	8	Ability to teach and train students with mild/moderate disabilities in communication skills using augmentative and alternative communication methods in diverse environments.	3.6173	.88423
	9	Ability to teach students with mild/moderate disabilities social skills and daily life skills.	3.6543	.88203
	10	Ability to teach students with mild/moderate disabilities strategies and techniques to help them generalize the skills in different situations.	3.5772	.88165
	11	Ability to train students with mild/moderate disabilities to build friendships using appropriate methods and situations.	3.7160	.91068
Total of the subscale			3.664	.64144
Skills for Implementation of Inclusion	12	Ability to collaborate with school professionals (i.e., social workers, psychologists, and teachers) to support inclusion.	3.7469	.88546
	13	Ability to plan behavioral intervention programs to train and motivate students with mild/moderate disabilities to stay in inclusive classrooms.	3.4907	.90914
	14	Ability to facilitate interaction between students with mild/moderate disabilities and their typically developing peers.	3.6296	.94025
	15	Ability to support the independence of students in inclusive classrooms based on their abilities.	3.6451	.89751

Skills for Implementation of Inclusion	16	Ability to apply the principles of universal design for learning to support the education of students with mild/moderate disabilities in inclusive classrooms.	3.4228	.92283
	17	Ability to modify the classroom environment to meet the physical and educational needs of the students with mild/moderate disabilities.	3.6975	.86979
	18	Ability to identify the appropriate assistive technology to enable the students with mild/moderate disabilities to participate in all school activities.	3.6451	.95435
Total of the subscale			3.6111,	.64326
Skills for Planning and Implementation of Behavioral Interventions	19	Ability to monitor the progress of students with mild/moderate disabilities toward the achievement of behavioral goals.	3.7901	.83226
	20	Ability to build behavioral intervention plans to control challenging behaviors of the students with mild/moderate disabilities.	3.4877	.88844
	21	Ability to collect and use data before and after the occurrence of challenging behaviors of students with mild/moderate disabilities to develop hypotheses.	3.6204	.88731
Total of the subscale			3.6327	.69784
Skills for Access to the General Education Curriculum	22	Ability to identify the possible use of the GEC content using adaptation or modification techniques.	3.5833	.86692
	23	Ability to adapt GEC objectives with the objectives of the IEP for students with mild/moderate disabilities.	3.5864	.79973
	24	Ability to use strategies of adaptation in teaching and evaluation to facilitate learning of the students with mild/moderate disabilities.	3.6173	.85576
	25	Ability to describe and analyze the performance of students with mild/moderate disabilities toward achieving their IEP goals applying GEC.	3.6389	.83786
	26	Ability to teach the students with mild/moderate disabilities skills to help them in ongoing participation in noneducational activities.	3.6235	.92113
Total of the subscale al			3.6099	.65621
Skills for Planning Transition Programs	27	Ability to discuss planning transitional goals (postschool) with the students with mild/moderate disabilities themselves (if possible) in addition to the IEP team.	3.4969	.91258
	28	Ability to teach the students with mild/moderate disabilities skills that help them participate in recreational activities in the community.	3.7778	.81396
	29	Ability to use appropriate assessment and measurement tools for long-term planning and to establish long-term goals.	3.4228	.89212
	30	Ability to teach students with mild/moderate disabilities independence skills to help them to integrate into the community.	3.7377	.86683
	31	Ability to teach the students with mild/moderate disabilities self-determination skills.	3.5833	.94222
Total of the subscale			3.6037	.69513
Total			3.6394	54929

Differences in preparedness scores across socio-demographic variables

A one-way ANOVA was used to answer research question two with $\alpha = 0.05$ to examine if there were any significant differences in participants' perceptions of their preparedness to teach students with mild to moderate disabilities in inclusive education across four academic year levels (freshmen, sophomores, juniors, and seniors). The results indicated there was no significant difference between participants' academic year level and their perceptions of preparedness to teach students with mild to moderate disabilities in inclusive education ($F(3,317) = 0.628, p = 0.101$).

Furthermore, t-tests were performed to examine participants' perceptions across their academic major (Science versus Liberal Arts) and academic program (Secondary versus Elementary). The t-tests revealed no significant differences among participants' perceptions based on their academic major ($t(322) = -1.431, p = .078$) and academic program ($t(322) = -0.452, p = .121$).

In order to answer research question three, inferential analysis using a one-way ANOVA was applied to test four conditions (taking one of two special education courses listed below, taking both courses, or taking no special education courses at all). The results of the ANOVA showed that there was a statistically significant difference between groups as determined by one-way ANOVA ($F(3,320) = 4.564, p = .004$). However, although an ANOVA is used to compare differences between more than two groups, it does not identify where the significant differences are. Therefore, a Tukey post hoc test was used to determine where there was a significant difference between the groups. The Tukey post hoc test revealed that:

1. For participants who completed taking only the course Introduction to Special Education, results showed that there was no statistical difference between taking this course and taking no course at all ($p = .233$).
2. For participants who completed taking only the course Teaching Methods in Special Education, results showed that there was no statistical difference between taking this course and taking no course at all ($p = .347$).
3. For participants who completed both courses, the perception of preparedness was statistically significantly higher after taking both courses (0.286 ± 3.2 min, $p = .002$) compared to students who took no special education courses at all.

DISCUSSION

Many countries today are encouraging schools to include students with disabilities in general education classrooms (Forlin, 2010; Friend & Bursuck, 2018). Therefore, preparing educators to effectively teach students with disabilities is more critical than ever to achieve successful inclusive education. Educators today must be qualified to meet the current teaching standards by mastering academic content as well as meeting students' diversity in inclusive education. In Kuwait, many general education teacher preparation programs offer very limited experiences in inclusive education (Alazemi, 2021). The result of this is that most new teachers have little knowledge and experience in inclusive practices such as individualizing instructions and implementing adaptation strategies. The purpose of this study was to examine pre-service teachers' perceptions of their preparedness to teach students with mild to moderate disabilities in inclusive education.

Findings from the first research question revealed that participants perceived themselves to be prepared to teach students with mild to moderate disabilities in inclusive education. This finding is supported by studies such as Aldabas (2020), Hauerwas and Mahon (2018), and Ruppert et al. (2016), which confirmed that teachers felt prepared and showed a high level of commitment to teaching students with disabilities in inclusive settings. Conversely, the current finding contradicts several other studies that found that pre-service teachers doubted their preparedness and did not feel ready to teach students with disabilities due to the lack of sufficient pre-service teacher education courses and field practices that are necessary to develop their teaching and management skills (Attwood et al., 2019; Fayeze et al., 2011; Peebles & Mendaglio, 2014; Livers et al., 2021; Rowan & Townend, 2016; Stites et al., 2018).

However, the results of the current study found that the highest mean score was for the Collaboration and Teaming Skills subscale, indicating that participants perceive themselves as most prepared and ready concerning working, facilitating, and communicating with IEP team members. This finding underscores that teachers feel most confident in their collaborative abilities, reflecting the results of previous studies (e.g., Aldabas, 2020). In contrast, the findings revealed that the participants feel less prepared in the Skills in the Implementation of Inclusion subscale, specifically in areas such as applying the principles of universal learning design, discussing transitional goals with students with mild/moderate disabilities, and using appropriate assessment and measurement

tools for long-term planning. These findings aligned with the findings of others such as Aldabas (2020), Livers et al., (2021), and Ruppert et al. (2016), who concluded that, in general, teachers perceived themselves as well prepared to teach students with disabilities; however, these teachers simultaneously feel less prepared to teach students with disabilities to implement differentiated strategies, work with parents to plan educational programs, identify assistive technology, and help students with social interactions and transitions.

The second research question explored whether participants' perceptions of preparedness to teach students with mild to moderate disabilities in inclusive education varied across demographic characteristics such as academic year level, academic majors, and academic programs. The survey results revealed no significant differences in perceptions based on any of these characteristics. This finding contrasts with Stites et al. (2018), who concluded that early childhood pre-service teachers perceived themselves as slightly better prepared for inclusive education compared to pre-service teachers from elementary education programs.

One possible explanation for this lack of variation is the uniformity in the teacher preparation programs from which participants were recruited. These programs include only one compulsory course in special education, with no field experience focused on teaching students with disabilities. Additionally, only elementary education programs offer a second compulsory course that focuses on teaching methods, pedagogy, and inclusive practices. This limited exposure to special education content and practical experience may contribute to the uniformity in participants' perceptions of their preparedness, regardless of their academic year, major, or program.

Previous studies indicated that special education teachers possessed greater confidence and felt well-prepared to teach students with disabilities (Stites et al., 2018; Zagona et al., 2017) due to many factors such as the type of their programs; these programs provide different courses in learning and teaching inclusive education methods and provide experience in teaching students with disabilities (Attwood et al., 2019). In Kuwait, general education teachers are the main teachers who are responsible for teaching a variety of student abilities, including those with disabilities. Yet, general education programs lack sufficient knowledge and courses in special education.

The third research question asked whether participants' perceptions varied across demographic variables of completing either an introductory course in special education, a teaching method course in special education, or both. The result of this study revealed that

there were significant differences among participants' perceptions of preparedness in teaching students with mild to moderate disabilities, based on their completion of both introductory and pedagogy courses in special education, but not either course alone. These findings are consistent with several studies that have confirmed the importance of providing sufficient and effective courses in special education, including training and field experiences in teacher preparation programs (Alazemi, 2021; Forlin, 2010; Hauerwas & Mahon, 2018; Hodkinson, 2009; Zagona et al., 2017). These studies established that educators who lack the appropriate knowledge and skills to teach students with disabilities are more likely to feel unprepared, uncomfortable, anxious, and less confident when teaching students with disabilities (Alazemi, 2021; Attwood et al., 2019; Livers et al., 2021). Internationally, a number of studies have revealed that many teacher preparation programs fail to educate undergraduate teacher education students on inclusive practices (Fayez et al., 2011; Humaira et al., 2021; Peebles & Mendaglio, 2014), thereby leaving little chance for teachers to acquire the essential skills for inclusion during their teacher preparation. Some research has indicated that one course in special education has the potential to influence positive attitudes toward inclusion among educators (Forlin, 2010; Forlin & Chambers, 2011; Zagona et al., 2017). On the other hand, numerous studies have confirmed the importance of teaching and incorporating inclusive practices in teacher preparation courses that emphasize using a range of pedagogical approaches, implementing IEP, applying appropriate interventions, and facilitating interaction in the classroom (Forlin, 2010; Stites et al., 2018; Zagona et al., 2017). Also, Kahn and Lewis (2014), found that experience with and/or training in teaching students with disabilities increased teachers' feelings of preparedness to teach students with disabilities. In conclusion, this finding indicated that providing theoretical special education courses is not sufficient in enhancing learning outcomes; pre-service teachers also need to have practical experiences in special education that include, for example, implementing IEP, adapting lessons, and implementing accommodations to achieve inclusive education and to work successfully with students with disabilities.

CONCLUSIONS

Generally, our results revealed that teachers possessed positive attitudes toward inclusion and felt prepared to teach students with disabilities in inclusive education.

However, there were significant differences among participants' perceptions of their preparedness to teach students with mild to moderate disabilities, based on whether or not they had completed introductory and pedagogy courses in special education, in favor of those who had completed these courses.

A closer look at the findings indicates that participants felt more prepared to collaborate with students with disabilities and less prepared for planning transition programs. This suggests that teacher preparation programs in Kuwait need to be improved through additional coursework as well as field experiences related to inclusive education in all teacher preparation programs. Once these pre-service teachers become practicing in-service teachers, professional development programs can be offered to provide guidance and authentic experiences aimed at helping them gain the necessary knowledge about effective practices in inclusive education.

LIMITATIONS AND FUTURE RESEARCH

The sample for this study was a convenience sample where the pre-service teachers were recruited from one public university. Given the large sample size and the fact that teacher preparation programs in Kuwait have similar coursework requirements, the results are generalizable to pre-service teachers studying in Kuwait.

Additionally, the data gathered was based on participants' self-reported perceptions, which were subject to under as well as overreporting. Thus, the findings reflect

the participants' perceptions of preparedness rather than their actual level of the same. Supporting the data with future studies that include additional data sources, such as observations and structured interviews, could increase knowledge about the areas of inclusion in which teachers need experience and training.

Additional research is needed to explore teacher preparation programs in Kuwait, especially the characteristics of effective preparation programs. Further research is thereby needed to determine whether pre-service teachers would perceive themselves as more prepared to implement inclusion if they had greater experience in the field working with diverse students, as well as explicit training in supporting student inclusion. Finally, more research is needed to establish a framework for recommended practices in inclusive education, including a series of core competencies needed to work effectively with all students in an inclusive setting. By providing pre-service teachers with opportunities for specific training and meaningful learning opportunities, every teacher will be better equipped to develop their expertise in all areas of inclusion.

ACKNOWLEDGEMENTS

None.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

FUNDING

None.

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