Investigation of Teacher Candidates' Awareness towards Inclusive Education

Öğretmen Adaylarının Kapsayıcı Eğitime Yönelik Farkındalıklarının İncelenmesi

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ABSTRACT: This study aimed to examine the awareness of teacher candidates towards inclusive education. This mixed method study was performed with the convergent parallel mixed pattern. The sample of quantitative part of the study consisted of 708 teacher candidates in an education faculty determined by criterion sampling. The study group of the qualitative part of the research is 14 teacher candidates (preservice teachers) selected from among these participants. The research data were collected with Awareness Scale for Inclusive Education and Interview Form for Evaluation of Inclusive Education Course. The scale data were analyzed by descriptive and inferential statistics, and the semi-structured interview data were analyzed by content analysis. The results revealed that the awareness of teacher candidates' inclusive education was at a moderate level. In addition, the awareness level of the participants who had inclusive education training was higher than the participants who did not, and the female participants had higher awareness compared to the male participants. The interview results revealed that training on inclusive education increased teacher candidates' awareness of its history, aims, the students it encompasses, and its applications. According to the results of the research, it has been suggested to expand the inclusive education provided to teachers before and during the service.

Keywords: Teacher candidate, inclusive education, awareness.

ÖZ: Bu araştırmada, öğretmen adaylarının kapsayıcı eğitime yönelik farkındalıklarının incelenmesi amaçlanmıştır. Karma yaklaşıma sahip olan bu araştırma, yakınsayan parelel karma deseni ile yürütülmüştür. Araştırmanın örneklemini, ölçüt örneklemesi ile belirlenen bir eğitim fakültesinde öğrenim gören 708 öğretmen adayı oluşturmuştur. Araştırmanın nitel kısmının çalışma grubu ise, bu katılımcılar arasından seçilen 14 öğretmen adayıdır. Araştırmanın verilerinin elde edilmesinde Kapsayıcı Eğitime Yönelik Farkındalık Ölçeği, Kapsayıcı Eğitim Dersinin Değerlendirilmesine Yönelik Görüşme Formu kullanılmıştır. Ölçek verileri betimsel ve çıkarımsal istatistik, yarı yapılandırılmış görüşme verileri ise içerik analizi ile analiz edilmiştir. Araştırmada öğretmen adaylarının kapsayıcı eğitime yönelik farkındalıklarının orta düzeyde olduğu belirlenmiştir. Ayrıca, bu eğitime ilişkin öğrenim gören katılımcıların öğrenim görmeyen katılımcılara ve kadın katılımcıların erkek katılımcılara göre bu farkındalıklarının daha yüksek olduğu tespit edilmiştir. Yarı yapılandırılmış görüşmeler sonucunda da kapsayıcı eğitime ilişkin öğrenim görmenin öğretmen adaylarının bu yaklaşımın tarihçesine, amaçlarına, dikkate aldığı öğrencilere ve uygulamalarına ilişkin farkındalığını artırdığı belirlenmiştir. Araştırmanın bu sonuçları doğrultusunda öğretmenlere hizmet öncesinde ve esnasında sağlanan kapsayıcı eğitime ilişkin eğitimlerin yaygınlaştırılması önerilmiştir.

Anahtar kelimeler: Öğretmen adayı, kapsayıcı eğitim, farkındalık.

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The cognitive, biological, emotional, cultural, social, and other characteristics of individuals differ due to the influence of both hereditary factors and the environment in which they live. Individual differences such as interest, readiness, cognitive ability, learning styles, learning speed, culture, and socioeconomic level have direct impact on the academic, affective, social, cultural education of students in the same class (Drapeau, 2004; Gregory & Chapman, 2002). Physical, mental, or multiple disabilities, emotional and behavioral disorders, speech and language disorders, learning and specific learning disabilities, autism spectrum disorder, giftedness, cultural and language differences, and being at risk (Mastropieri & Scruggs, 2016) are situations that can lead to differentiation in students' needs, inadequate performance in certain activities, and disadvantage or special needs. The perspective of these individuals regarding their status in society, being a part of it, and their means of living has significantly differed from past to present (Yücesoy-Özkan et al., 2019).

The perspective on the education of individuals with special needs has also evolved considerably over time. Until the 1960s, these individuals were excluded (Osgood, 2005), segregated (Bakker, 2015; Pfahl & Powell, 2011), and received individual education in special education classes with students with special needs like themselves (Heward, 2013). In the 1960s, on the contrary, it was advocated and put into practice that these individuals should live in conditions as close to normal as possible, benefit equally from the opportunities provided to other people in society, and become educated (Hallahan & Kauffman, 1988). In the 1970s, the view of the least restrictive environment where the needs of disadvantaged individuals would be met in the best way and they could access education in the same environment as their companions emerged, forming the basis of inclusion (Heward & Orlansky, 1988). In the 1980s, students with special needs were taught in general education classes with an inclusion approach, and these classes were prepared to meet the needs of these students and provide them with appropriate education. In the 1990s, adaptations were made in programs, methods-techniques, or measurement-evaluation to meet the educational requirements of these students with integration, and support education services were provided (Hallahan & Kauffman, 1988). In the 2000s, the view of education for everyone was accepted, considering that education services should take into account all disadvantaged students due to their gender, language, religion, ethnic origin, and race, as well as students with special needs, which turned into inclusive education in the late 2000s and became widespread since 2010 (Ineson & Morris, 2006). In summary, the concept of inclusive education began with the inclusion of physically or mentally disabled students with special needs in general education processes. It then expanded to consider disadvantaged students, such as those with low socioeconomic status, ethnic and cultural minorities, and foreign nationality, in their access to education, culture, and social life (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2009). Today, it encompasses the differentiation of education for all students, whether they are disadvantaged or not (Gülay, 2021).

In the context of this historical development, inclusive education can be defined as the process of responding to the needs of all students with different characteristics by increasing participation in education, culture, and social life, minimizing discrimination in education, and maximizing equality of opportunity (Taylor & Sidhu, 2012; UNESCO, 2009). In other words, all students with different developmental and

educational needs, including disadvantaged students, are educated together in the least restrictive environment and conditions, and no student is excluded from education (Strieker et al., 2013). Inclusive education aims to provide equal educational opportunities by considering students' expectations, needs, and abilities. It also aims to provide quality education, reduce costs by ensuring that all students study together in the same schools, increase participation in society, prevent discrimination different fields, and create a more fair and inclusive society (Westwood, 2013).As a result of this education, it can be easier for all students to adapt to their school and social life (Bayram, 2019), these experiences can be associated and integrated (Monika et al., 2015), and the risk of failure in these experiences can be minimized (Ereş, 2015). In addition, implementing this training can help students feel a stronger sense of belonging to their school and improve their communication skills (Altındağ-Kumaş, 2022).

In order for inclusive education to provide these benefits and be effective, various stakeholders need to fulfill some duties and responsibilities. For instance, teachers need to take an active role in the successful realization of inclusive education as they interact with students closely and for a long time. They are the key elements in the process (Ünay & Çakıroğlu, 2019). Therefore, with the use of differentiated instruction, content, materials, methods-techniques, and activities, learning products can be diversified according to students' interests, readiness, and learning profile, and flexibility can be provided in their planning (Alquraini & Gut, 2012; Tomlinson, 1999). In addition to this teaching, the constructivist approach, multiple intelligence theory, or multicultural education can be applied (Uysal & Uysal, 2019). In addition, it can be benefited from the universal design that aims to develop products that can be reached by all individuals, regardless of their disability (Henry et al., 2014), and to participate in all areas of society with equal opportunity (Yan, 2014).

Different measurement-evaluation techniques can be used to identify the expectations and needs of students before teaching (Levy, 2008; Tomlinson, 1999), to provide feedback to students about what they have learned and have difficulty learning during teaching, to monitor them in the process (Levy, 2008; Sousa & Tomlinson, 2011), and to determine the effectiveness of the teaching (Tomlinson, 1999; Whipple, 2012). Furthermore, teachers can provide their students with support from special education services such as a support education room, Special Education and Rehabilitation Center, and Science and Art Center (Uysal et al., 2019). They can also design the physical environment of the classroom according to inclusive education principles, foster a democratic and highly participatory classroom atmosphere, ensure cooperation with all stakeholders of the school, and encourage them to take responsibilities (Alquraini & Gut, 2012; Gülay & Altun, 2022). School administrators can also lead the application of inclusive education and cooperate with all the school's stakeholders, create a school culture that includes and supports everyone, and design the school's physical environment in accordance with this education. Families, on the other hand, can cooperate with the teacher, provide information to the teacher about their child's situation at home, and play a role in the planning and implementation of their child's education (Ministry of National Education [MoNE], 2013).

With the increasing realization of the significance and benefits of inclusive education, legal arrangements have been made for this education in the world and Turkey. Legal arrangements regarding inclusive education at the international level are

the UNESCO Convention Against Discrimination in Education (1960), Declaration on the Rights of Persons with Intellectual Disabilities (1971), Resolution on the Inclusion of Children and Young People with Disabilities in the General Education System (1990), UNESCO Education for All Program (1990), and Principle Decision on Ensuring Equal Opportunity in Education and Vocational Education for Students with Disabilities (2003) (Ağalday, 2022). The legal arrangements regarding inclusive education in Turkey are the Regulation on Children in Need of Special Education (1962-1968), Law on Children in Need of Special Education (1983), Regulation on Educational Practices for Children with Mental Disability (1992), Decree on Special Education (1997), Special Education Services Regulation (2000-2018), Special Education Institutions Law (2007), Special Education Institutions Regulation (2012), Support Education Chambers Opening Circular (2015), Science and Art Centers Directive (2016), and Education Practices through Inclusion/Integration Circular (2017) (Ağalday, 2022; Koç et al., 2019). These regulations lay the foundation for inclusive education or legally guarantee this education by emphasizing that all students receive education with equal opportunities.

Along with these regulations, the Ministry of National Education has been taking serious steps to realize inclusive education in recent years. First, it has emphasized inclusive education and differentiated instruction in its curriculum since 2015 (Gülay, 2021). In addition, the "Inclusive Education Project" was developed in the following process and executed in cooperation with United Nations International Children's Emergency Fund [UNICEF] and the coordination of Erciyes University. Within the scope of this project, in-service training on this approach was provided to approximately 235 thousand teachers between 2016 and 2018. These trainings first provided theoretical instruction on inclusive education and differentiated education. Then, the preparation of plans for these in practice, the use of methods-techniques (station, etc.), and the realization of measurement-evaluation were shown. The in-service training aims to support the professional development of teachers with its activity-oriented practices and to make it a skill to use student-centered methods-techniques (MoNE, 2022). While practicing their profession, teachers need to exhibit positive and inclusive attitudes and behaviors towards students with different characteristics (Boer et al., 2011; Kula, 2020). In addition, since they carry out more effective practices for inclusive education (Banks, 2010); teacher candidates to receive training on this approach before service. As a result, to increase their knowledge and awareness. Some education faculties included the inclusive education course in their 2018 undergraduate programs and started to provide this education to their students. It is important to determine the professional life-oriented outputs, contributions, and deficiencies of this course for teacher candidates and the suggestions for making it more effective. This study is expected to contribute to the literature in this aspect. Therefore, it aimed to examine teacher candidates' awareness towards inclusive education. In this study, answers were sought to the following questions:

1. What is the awareness level of teacher candidates towards inclusive education?

2. Do teacher candidates' awareness levels of inclusive education differ significantly according to their education on this subject and gender?

3. What are the evaluations of teacher candidates regarding the inclusive education course?

Method

Research Model

This study aimed to find out the awareness levels of teacher candidates about inclusive education and how this awareness differed according to their educational status and gender. The quantitative and qualitative data were collected together to elaborate the research (Çepni, 2010), and mixed design was used to obtain and present more findings and results related to the purpose (Christensen et al., 2015). To determine the awareness of teacher candidates towards inclusive education, a parallel mixed-method design was used. This involved collecting quantitative data using a data collection tool and supplementing it with qualitative data to ensure accuracy and provide a more detailed interpretation (Creswell, 2016). Teacher candidates' awareness about inclusive education was examined by simultaneous screening and semi-structured interviews with some participants. In this respect, first of all, the "Awareness Scale for Inclusive Education" was applied in the quantitative part of the research to prospective teachers studying at an education faculty in the 2021-2022 academic year. In order to examine this awareness of the participants according to whether they received inclusive education courses on this approach or not, teacher candidates who studied at different programs such as music education, preschool education, guidance and psychological counselling, and primary education were included into the research. Since the third and fourth-grade teacher candidates in these programs have taken this course and the lower grades have not yet taken it, the research was carried out with all grade-level teacher candidates in order to accurately examine the effect of inclusive education courses on their awareness. In the qualitative part of the study, semi-structured interviews were conducted with 14 teacher candidates who studied and took inclusive education courses in the third and fourth grades of these four programs in order to explain the effect of this course on the awareness of pre-service teachers about inclusive education widely.

Participants

The population of the quantitative part of the research included teacher candidates studying at an education faculty in the 2021-2022 academic year. The sample was determined by criterion sampling, one of the purposeful sampling methods from the universe, to examine teacher candidates' awareness about inclusive education according to their education. In this method, certain people or situations are comprised in the research (Büyüköztürk et al., 2016). In this respect, taking an inclusive education course was taken as a criterion, and only teacher candidates who studied at music, preschool, guidance and psychological counselling, and primary education programs out of 12 active programs in the faculty, were included in the research. Since the third and fourth-grade teacher candidates received this course in these programs and the first and second-grade teacher candidates did not, all grade levels were included in the study in order to make comparisons effectively. Information about the sampling is presented in Table 1.

Table 1

Distribution of the Sample by Variables

Variables	Categories	N	%
Inclusive Education Training	Yes	338	47.7
	No	370	52.3
Gender	Female	570	80.5
	Male	138	19.5

As shown in Table 1, almost half of the teacher candidates had training on inclusive education, but the others did not. In addition, the majority of the participants were female.

The qualitative part of the research involved a study group of 14 teacher candidates selected from four programs based on their voluntary participation and enrollment in the inclusive education course. These candidates were in their third or fourth year of study and were chosen from a total of 708 participants.

Data Collection Tools

The research data were collected with the Awareness Scale for Inclusive Education and Interview Form for Evaluation of Inclusive Education Course. The Awareness Scale for Inclusive Education, which was used to statistically examine teacher candidates' awareness of inclusive education and how this awareness differed according to their educational status and gender, was developed by Kılcan and Şimşek (2021). Validity and reliability studies of the five-point Likert-type scale were carried out, such as presenting the item pool to expert opinion, making corrections in line with their feedback, and subjecting it to pre-application and exploratory factor analysis. The scale consists of five dimensions and 22 items in total: the aim of inclusive education (six items), inclusive education for disadvantaged groups (five items), inclusive education and legislation (four items), achievement in inclusive education (four items), and history of inclusive education (three items). All of these dimensions explain 57,066% of the total variance, which is an acceptable value since it is above 50% at least (Williams et al., 2010). The reliability coefficient Cronbach's Alpha value of the scale is 0.88, and this value is sufficient since it is over 0.70 (Cronbach, 1990; Pallant, 2010). It was 0.96 in our study, so the scale is valid, reliable, and useful in determining awareness for inclusive education (Kılcan & Şimşek, 2021).

The Interview Form for Evaluation of Inclusive Education Course, which was used to better explain the awareness of teacher candidates towards inclusive education, to support and complement the scale data, and to evaluate the learning about inclusive education, was developed by the researchers as semi-structured, so that students can be free to express themselves candidly. The form items were prepared in relation to the scale items, submitted to the opinion of three experts in linguistics, assessment and evaluation, and inclusive education, and exposed to a pilot study (Yıldırım & Şimşek, 2008). The final form included eight open-ended items aiming to explore the awareness of inclusive education and the evaluation of its course in depth.

Data Collection and Analysis

The Inclusive Education Awareness Scale was administered face-to-face to 708 teacher candidates studying in music, preschool, guidance, and psychological counselling, primary school programs at an education faculty in the 2021-2022 academic year, following the approval of the ethics committee. First of all, the teacher candidates were notified about the purpose of the research and ensured the confidentiality of their views. Then, volunteers were approved to participate in the research and fill out the scale. At the same time, semi-structured interviews were conducted with 14 third and four-grade student teachers who received inclusive education courses in order to evaluate the inclusive education course and to examine the effect of this course on awareness of inclusive education. These interviews proceeded in a face-to-face conversation style in a comfortable environment and were recorded upon the participants' permission.

The quantitative data obtained from the Awareness Scale for inclusive Education were analyzed using descriptive statistics to examine the awareness levels of teacher candidates towards inclusive education. The mean scores of teacher candidates on the scale and sub-dimensions were calculated (Nick, 2007). In the interpretation of these scores, the formula of the width of the array/number of groups to be made was used (Tekin, 1996), and it was preferred to show the awareness of teacher candidates towards inclusive education in three categories. The awareness levels of the participants were formed as "low" between 1.00-2.33, "moderate" between 2.34-3.66, and "high" between 3.67-5.00.

Inferential statistics were employed to examine the awareness of inclusive education among teacher candidates, based on their level of education and gender. Therefore, the normal distribution of the data was tested, and the correct analyses were determined (Creswell, 2016). Since the skewness and kurtosis values were between -1.5 and +1.5, the data were normally distributed (Tabachnick & Fidell, 2013), and parametric tests were applied. Namely, the independent t-test was used, and the significance of the difference between the mean scores of two unrelated samples was examined (Büyüköztürk, 2007). Levene's Test (homogeneity of variances) was taken into account in the realization of this test, and interpretations were made accordingly (Ak, 2010).

The data from semi-structured interviews with teacher candidates were subjected to content analysis for detailed and high-level analysis. First, these interviews were recorded and transcribed. Afterwards, these data were analyzed, and key concepts were formed. The data were analyzed in depth, and both common and different views of the participants were determined. Codes and categories were created from similar views. As a result, the findings were presented in tables and exemplified with direct quotations. Meanwhile, the teacher candidates were coded as P1, …, and P14 to apply ethical rules and ensure confidentiality (Ekiz, 2015).

Validity and Reliability

First of all, a valid and reliable scale was used in the quantitative part of the study. While applying this scale, the sample was kept as large as possible in order to generalize the research results, while also ensuring that participation was voluntary (Çıngı, 1994). In addition, the data set of the scale was examined in terms of random

markings and normal distribution before the analysis. During the analysis, the homogeneity of the variances was taken into account, and the reliability coefficient value of the data set was checked (McKillup, 2012).

For the validity and reliability of the qualitative part of the research, the semi-structured interview form was prepared considering the scale. It was subjected to the opinion of three experts. The interviews were conducted in a comfortable environment and recorded (Yıldırım & Şimşek, 2008). In the analysis of the data obtained from the interviews, researcher triangulation was employed. One researcher first analyzed obtained data, then presented to the view of the other researcher. During the analysis process, the findings were compared, discussed, and finally, a consensus was reached (Fraenkel & Wallen, 2008). Finally, the findings obtained from the data were presented in accordance with the perspectives of the participants and supported by direct quotations from their conversations (Maxwell, 1992).

Ethical Procedures

Ethical approval and written permission were obtained from Trabzon University Social and Human Sciences Ethics Committee with the decision dated 13.05.2022 and numbered 2022-5/1.11. The research was carried out following ethical rules at every stage. Participation of the candidates in the research took place on a voluntary basis.

Results

In this section, the findings regarding the awareness of teacher candidates about inclusive education, how this awareness changes according to their educational status, gender, and the evaluation of the inclusive education course are presented.

Awareness Levels of Teacher Candidates for Inclusive Education

The results of the descriptive statistical analysis employed to determine the awareness levels of teacher candidates towards inclusive education are presented in Table 2.

Table 2

Awareness Levels of Teacher Candidates for Inclusive Education

Dimension	N	$\overline{X}$	Ss	Level
Aim of Inclusive Education	708	3.84	.75	High
Inclusive Education for Disadvantaged Groups	708	3.79	.85	High
Inclusive Education and Legislation	708	2.91	1.02	Moderate
Achievement in Inclusive Education	708	3.80	.82	High
History of inclusive education	708	2.77	1.17	Moderate
Total scale	708	3.51	.78	Moderate

As seen in Table 2, the teacher candidates' awareness of inclusive education is at a moderate level ($\bar{x}$=3.51). In addition, the participants' awareness of inclusive education and legislation ($\bar{x}$=2.91) and the history of inclusive education ($\bar{x}$=2.77) was at a moderate level. Their awareness of the aim of inclusive education ($\bar{x}$=3.84),

inclusive education for disadvantaged groups (x̄=3.79), and achievement in inclusive education (x̄=3.80) is high.

Examination of Teacher Candidates' Awareness Levels for Inclusive Education According to Education and Gender

The results of the independent t-test analysis performed to determine the effect of learning about inclusive education on awareness of this education are presented in Table 3.

Table 3

The Effect of Educational Status of Teacher Candidates on Awareness Levels of Inclusive Education

Dimension	Education	N	$\overline{X}$	Ss	Levene's Test		sd	t	p
					F	p			
Aim of Inclusive Education	Yes	338	4.43	.44	10.276	.001	697.679	30.467	.000
	No	370	3.31	.54					
Inclusive Education for Disadvantaged Groups	Yes	338	4.48	.50	.624	.430	706	32.996	.000
	No	370	3.16	.55					
Inclusive Education and Legislation	Yes	338	3.70	.69	.138	.710	706	29.274	.000
	No	370	2.19	.68					
Achievement in Inclusive Education	Yes	338	4.45	.50	4.363	.037	705.468	31.010	.000
	No	370	3.20	.57					
History of Inclusive Education	Yes	338	3.64	.84	.000	.988	706	27.052	.000
	No	370	1.97	.80					
Total Scale	Yes	338	4.20	.41	.002	.969	706	42.825	.000
	No	370	2.87	.42					

*$p< .05$

As seen in Table 3, the awareness of teacher candidates who have received inclusive education training in all dimensions is significantly higher than those who do not receive education ($p<0.05$).

The results of the independent t-test analysis performed to determine the effect of gender on awareness towards inclusive education are presented in Table 4.

As shown in Table 4, female teacher candidates demonstrate a significantly higher awareness of inclusive education compared to male teacher candidates ($p<0.05$). The findings are the same in terms of the aim of inclusive education, inclusive education for disadvantaged groups, and achievement in inclusive education. However, there is no significant difference in the awareness of teacher candidates by gender in terms of inclusive education and legislation and the history of inclusive education.

Table 4

The Effect of Teacher Candidates' Gender on Awareness Levels of Inclusive Education

Dimension	Gender	N	$\overline{X}$	Ss	Levene's Test		sd	t	p
					F	p			
Aim of Inclusive Education	Female	570	3.89	.74	1.140	.286	706	3.752	.000
	Male	138	3.63	.72					
Inclusive Education for Disadvantaged Groups	Female	570	3.83	.85	2.483	.116	706	2.495	.013
	Male	138	3.63	.80					
Inclusive Education and Legislation	Female	570	2.92	1.05	8.066	.005	233.900	.519	.605
	Male	138	2.88	.91					
Achievement in Inclusive Education	Female	570	3.84	.83	.957	.328	706	2.913	.004
	Male	138	3.62	.78					
History of Inclusive Education	Female	570	2.78	1.19	6.703	.010	228.453	.648	.518
	Male	138	2.72	1.06					
Total Scale	Female	570	3.54	.80	9.520	.002	228.281	2.541	.012
	Male	138	3.37	.71					

*$p < .05$

Evaluation of Teacher Candidates for the Inclusive Education Course

In this section, teacher candidates' views on the historical development of inclusive education, the students it considers, its aims, and what can be done to make this education and course more effective are given as an outcome of the inclusive education course. The views of teacher candidates on the historical development of inclusive education are presented in Table 5.

Table 5

The Views of Teacher Candidates on the Historical Development of Inclusive Education

Stages	Participants	Frequency
Dehumanization	P7, P9	2
Exclusion	P7, P9	2
Segregation	P7, P9	2
Normalization	P7, P9	2
Special education	P1, …, P14	14
Mainstreaming	P1, …, P7, P12, P13, P14	10
Integration	P1, P7, P13	3
Inclusive education	P1, …, P14	14

*The codes are ordered according to the historical development of inclusive education.

As seen in Table 5, all of the teacher candidates know that inclusive education has passed through the special education phase. The vast majority of the participants

know that there is a mainstreaming phase, and three of them know about the integration phase. In addition, two participants knew that inclusive education had stages of Dehumanization, Exclusion, Segregation, and Normalization before special education. For example, P7 expressed his views on these stages: *"Firstly, the education of children with special needs was considered. In a certain period, the society was afraid of these individuals and tried to keep them away from the society. In other words, these individuals were excluded and discriminated against. Then, there was a period of protection. During this period, these individuals began to be noticed. Special education began in the 1950s. Afterwards, the transition to inclusive education was made. In this education, children with special needs were educated in the same class with their friends, sometimes full and sometimes part-time. Thus, integration training was carried out, and inclusive education was started."*

The teacher candidates' views about the students that inclusive education takes into account are presented in Table 6.

As seen in Table 6, all of the teacher candidates know that inclusive education takes into account physically or mentally disabled students. The vast majority of the participants know that this training also includes foreign nationals and socioeconomically disadvantaged students. In addition, some participants know that this training includes students with autism spectrum disorder, Down syndrome, abused, gender discrimination, and learning difficulties. For example, P3's views on the students that inclusive education takes into account are as follows; *"It includes students with physical and mental disabilities, learning difficulties, autism, down syndrome, refugees, racially disadvantaged, gifted, low-income students, losing their parents, victims of violence, abused students, etc."*

Table 6

Views of Teacher Candidates on Students Considered by Inclusive Education

Students	Participants	Frequency
Physically or mentally disabled	P1, …, P14	14
Foreign nationality	P1, P2, P3, P4, P6, …, P14	13
Socioeconomically disadvantaged	P2, …, P10, P12, P13, P14	12
Autism spectrum disorder	P3, P4, P7, P9, P12, P13	6
Down syndrome	P3, P4, P9, P12, P13	5
Abused	P3, P4, P12, P13, P14	5
Gender discrimination	P2, P5, P8, P10, P11	5
Learning difficulty	P3, P4, P12	3
Gifted / talented	P3, P7, P12	3

Teacher candidates' views on the aims of inclusive education are presented in Table 7.

Table 7

The Views of Teacher Candidates on the Aims of Inclusive Education

Views	Participants	Frequency
Ensuring equal opportunity in education	P1, …, P14	14
Integrating all students into society	P2, P3, P9, P12, P13, P14	6
Providing quality education	P1, P6	2

As shown in Table 7, all teacher candidates believe that inclusive education aims to provide equal opportunities in education. Some participants stated that this education also aims to integrate all students into society and to provide quality education. For Example, P1 expresses his views on the aims of inclusive education as *"There certainly shouldn't be a single curriculum. For example, a text should not only be processed by reading but also should be supported with pictures or something else because maybe there are students in the class who cannot hear. In other words, more than one teaching program should be carried out for individual differences. Thus, we involve every student in the process, provide equal opportunities and receive positive feedback from students. In other words, students' success, motivation, and self-confidence increase. In addition, the motivation of the teacher increases, and his teaching becomes better."*

Teacher candidates' views on quality inclusive education are presented in Table 8.

Table 8

Suggestions of Teacher Candidates on Quality Inclusive Education

Suggestions	Participants	Frequency
Organizing seminars on inclusive education for school stakeholders	P1, P2, P4, P5, P7, …, P14	12
Considering individual differences	P1, P2, P5, P6, P11, …, P14	8
Using different methods and techniques	P2, P3, P4, P6, P11, P13	6
Creating an inclusive school culture	P3, P6, P8, P12, P13, P14	6
Arranging schools according to universal design principles	P4, P6, …, P9, P14	6
Identifying students	P8, P11, …, P14	5

As seen in Table 8, most teachers recommend organizing seminars for school stakeholders for quality inclusive education and considering the individual differences of students in schools. Some participants suggested using different methods-techniques in lessons, creating an inclusive school culture, arranging schools according to universal design principles, and identifying students. For example, P13 suggested as, *"When I become a teacher, I first try to identify students. I can identify whose parents are divorced or what problem they have. I create classroom rules with the children. I contact families and cooperate with them. In cases where I need different support, if*

there is a guidance service at the school, I contact them. I differentiate my lessons by planning to include special students and by performing different applications. As for the general school, in-service trainings need to be organized. Teachers should be provided with practical training on current issues. One of these applied trainings should be inclusive education. The outputs of these trainings should also be monitored whether they are reflected in the classroom environment."

The suggestions of the teacher candidates regarding teaching the inclusive education course are presented in Table 9.

Table 9

Suggestions of Teacher Candidates Regarding the Teaching of Inclusive Education Course

Suggestions	Participants	Frequency
Increase hands-on activities	P1, …, P14	14
Compulsory course	P4, P5, P8, P9, P11, P13	6
Increase course hours	P9, P12	2

As seen in Table 9, all teacher candidates suggest that the inclusive education course should include more hands-on activities. Some participants suggested that the course should be compulsory with increased course time. For example, P4 expressed his views as, *"First of all, let me state that I am satisfied with the course and that I am happy that I took it. This elective course may be compulsory. Also, the course should include more practice. So, we have to go to schools and see classes with such students. This allows us to understand how they feel, to see what we can do differently, to improve, and to see what students think about them. I think the grade level is appropriate. But the lesson can be extended to three hours for more practice."*

Discussion and Conclusion

In this study, teacher candidates' awareness of inclusive education was determined at a moderate level, similar to the studies in the literature (Chary & Perumal, 2022; Mumthas & Shamina, 2011). In addition, it was revealed that teacher candidates' knowledge about inclusive education (Akbulut et al., 2021; Barned et al., 2011) and differentiated instruction which provide better education opportunities was limited (Aşiroğlu, 2016; Brevik et al., 2018; Ismajli & Imami-Morina, 2018). In some studies, teachers' awareness of inclusive education was moderate (Abbas & Naz, 2016; Amjad et al., 2020; Maheshwari & Shapurkar, 2015), and they could partially describe this education (Amjad et al., 2020; Bayram, 2019; Fırat, 2021; İlçin, 2022; Ünal & Aladağ, 2020). It was also reported in the literature that teachers had limited information about inclusive education (Akalın et al., 2014; Aykırı, 2017; Ayvacı & Yamaçlı, 2022; Bai & Martin, 2015; Eren, 2019; Forlin, 2013; Hobbs & Westling, 2002; Kahriman-Pamuk & Bal, 2019; Ketenoğlu-Kayabaşı, 2020) and differentiated instruction (Adlam, 2007; Davis, 2013; Gray, 2008; Ismajli & Imami-Morina, 2018; Öztürk & Mutlu, 2017; Pürsün & Efilti, 2017; Siam & Al-Natour, 2016; Smit & Humpert, 2012). However, Alsarawi and Sukonthaman (2021) determined that teacher candidates' knowledge levels about inclusive education are high. In summary, teacher candidates' awareness

and knowledge of these approaches are generally partial, and the result of this research is similar to the literature.

In the study, teacher candidates' awareness inclusive education was significantly higher. It was revealed in the literature that learning about inclusive education increases teacher candidates' awareness of this approach (Eşici & Doğan, 2021; Pingle & Garg, 2015), knowledge (Eşici & Doğan, 2021; Ketenoğlu-Kayabaşı, 2022) and self-efficacy (Romero-Contreras et al., 2013). In addition, some studies revealed that participating in in-service training for inclusive education raises teachers' awareness (Joseph et al., 2013; Kara-Eren, 2021; Öner, 2022) and knowledge level (Kara-Eren, 2021). Some studies revealed that education has positive effects on the application of inclusive education and differentiated instruction (Aydoğan-Yenmez & Özpınar, 2017; Burkett, 2013; De Neve & Devos, 2016; Dixon et al., 2014; Gülay, 2021; Kurnaz & Arslantaş, 2018; Richards-Usher, 2013). However, Kılıç-Avan and Kalenderoğlu (2020) determined that teachers trained for inclusive education found themselves partially competent in implementing this approach. In this context, it can be stated that learning about inclusive education and differentiated education mostly has positive effects on these approaches, and the result of this research supports the literature.

In this study, female teacher candidates' awareness of inclusive education was significantly higher than male teacher 'candidates. Similar findings can be found in research studies in the fields of inclusive education and differentiated education. In many studies, female teachers' self-efficacy regarding inclusive education (Avramidis et al., 2000; Özokcu, 2018; Romi & Leyser, 2006; Vent, 2021; Yılmaz, 2021) and their perception of practice (Bayram, 2019) were higher than male teachers. In addition, some studies (Demirkaya, 2018; Gülay, 2021) determined that female primary teachers had higher perceptions of applying differentiated instruction than male teachers. However, some studies revealed that male teacher candidates (Ahsan et al., 2013; Specht, 2016) and teachers (Emmers et al., 2020) have higher self-efficacy regarding inclusive education than females. In summary, the literature suggests that female teachers and teacher candidates tend to have greater awareness, self-efficacy, and perception of practice towards these approaches compared to their male counterparts. This is likely due to the fact that women are generally more open to the idea of inclusive education (Avramidis et al., 2000), and the results of this research are consistent with those findings.

In the interviews conducted in the research, findings related to the different benefits of learning about inclusive education were obtained. For example, in the study, as the output of this learning, teacher candidates were able to explain the historical development of inclusive education from dehumanization onwards and the students it considers. In fact, in the studies in the literature (Akbulut et al., 2021; Bayram, 2019; Eşici & Doğan, 2020; Kula, 2020), the students that this education takes into account could be defined as a result of learning about inclusive education. Similarly, the interviewed participants who received inclusive education were able to express the aims of this approach and what to do for its qualified realization. It was revealed in the literature that teacher candidates were able to explain the aims of this training (Akbulut et al., 2021; Eşici & Doğan, 2020; Ketenoğlu-Kayabaşı, 2022; Kula, 2020) and what to do for its successful implementation (Eşici & Doğan, 2020; Ketenoğlu-Kayabaşı, 2022; Kula, 2020). In addition, the participants recommended that the inclusive education

course should be application-based, compulsory, and of longer duration. It was suggested in the literature that inclusive education course should be optional or compulsory (Akalın et al., 2014; Akbulut et al., 2021; Ayvacı & Yamaçlı, 2022; Cengiz-Şayan, 2020; Gülay, 2021; Ketenoğlu-Kayabaşı, 2022; Kula, 2020; Serttaş, 2020; Şimşek, 2019), application-oriented (Akbulut et al., 2021; Alsarawi & Sukonthaman, 2021; Chary & Perumal, 2022; Eşici & Doğan, 2020; Mumthas & Shamina, 2011) and the hours of existing courses related to this education should be increased (Akbulut et al., 2021; Bayram, 2019; Şimşek, 2019) in undergraduate programs of education faculties. Thus, the interview findings are similar to the literature and support the contribution of inclusive education learning to awareness of this approach.

Implications

In-service training on inclusive education provided to teachers should be improved. Applied inclusive education should be provided to teacher candidates in all education faculties. New research may be conducted in different education faculties regarding the awareness of teacher candidates towards inclusive education. In these studies, the effect of education, gender, and similar variables on this education can be examined and compared with the results of the studies in the literature.

Statement of Responsibility

Ahmet Gülay; Literature review, construction of data collection tools, data collection from the field, data analysis and reporting. Taner Altun; Contributing to literature review, construction of data collection tools, coordinating and monitoring the data collection and analysis processes, giving feedback, editing content, checking academic writing.

Conflicts of Interest

Authors declare that there is no conflict of interest.

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Appendix

1- Semi-Structured Interviews Form

1. Could you explain what you know about the history of inclusive education?

2. Could you explain, what sort of students are considered in the frame of inclusive education today?

3. Can you explain aims of inclusive education?

4. In line with these purposes, what kind of practices do you intend to implement in your school/class while carrying out your profession?

5. What kind of contributions do you think inclusive education will make to students and teachers as a result of these practices? Can you explain with examples please?

6. What would you recommend for the success of inclusive education in schools affiliated to the Ministry of National Education?

7. What would you recommend making the inclusive education course in your undergraduate education more effective? Can you explain? (What can be added to the content, the way instruction, duration, grade level, etc.)

8. Finally, what could we not mention here but that you would like to add?