



Developing and Validating the Attitudes Towards Inclusive Education Scale (AIES) Around Contemporary Paradigms of Inclusion

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Abstract A few educational models have evolved fast as inclusive education (IE), which has expanded from being a special education technique focused on integration to a comprehensive model that encompasses the education of all students. However, there is a lack of measurement tools that align with the evolving conceptualizations of IE, provide insights into its implementation in the field, and capture the perspectives of school staff. Therefore, the primary objective of this study was twofold: firstly, to develop the Attitudes towards Inclusive Education Scale (AIES) to assess the attitudes of school staff, including teachers, managers, and school counselors, towards IE; and secondly, to examine the relationships between staff attitudes, demographic factors (age, gender), work experience, educational level engaged with and prior training in IE. The AIES comprised 43 items and three distinct dimensions, demonstrating a valid factor structure and satisfactory internal consistency. The findings revealed that school staff's attitudes significantly varied

based on gender and prior training in IE. This study makes a valuable contribution to the field by developing a robust and up-to-date attitude scale to assess attitudes towards IE.

Keywords Attitudes towards Inclusive Education Scale (AIES) · Scale development · School staff · Inclusion for all · Türkiye

Introduction

Inclusive education (IE) was historically defined as an approach that advocated for the integration of students at risk of exclusion from education (Vislie, 2003). However, over time, IE has evolved into an educational model that aims to provide high-quality education to all learners, regardless of their personal differences such as disability, ethnicity, socioeconomic status, gender, or language (Polat, 2011; UNESCO, 2015, 2017). This broader understanding of IE has gained support from a global movement focused on promoting inclusion in education, implementing inclusive practices in schools, and conducting research on IE.

According to Ainscow (2020), this movement towards inclusion is justified on three main grounds. First, from an educational perspective, inclusive schools are required to develop pedagogical strategies that acknowledge and respond to the individual differences of students, ultimately enhancing the learning and development of all learners. Second, from a social standpoint, IE fosters positive attitudes towards diversity and contributes to the formation of a fair and equalitarian society by educating all children together in inclusive school environments. Finally, from an economic standpoint, establishing schools that educate all learners together is more cost-effective than maintaining a system of segregated schools that cater to specific groups of students.

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The discussion surrounding IE in various countries has primarily centered on conceptual aspects, such as defining IE, evaluating its efficacy as an approach, and distinguishing it from special education (Amor et al., 2019). While these conceptual debates hold significance, there are two fundamental areas that necessitate further exploration to foster inclusion within the education system. Firstly, the practical implementation of IE in schools requires in-depth investigation from the perspective of all school staff members, including teachers, school managers, and counselors. Understanding how IE can be effectively put into practice is crucial. Secondly, a notable gap exists in terms of robust and validated measurement tools to assess attitudes towards IE within school contexts and across different countries. Consequently, the development of the Attitude towards Inclusive Education Scale (AIES) was undertaken, specifically tailored to measure school staff's attitudes towards IE in Türkiye. Additionally, the study examined the associations between school staff's attitudes towards IE and variables such as age, gender, work experience, and prior training on IE. The AIES aligns with the most contemporary conceptualization of IE, which perceives schools as inclusive environments that provide quality education to all learners.

Theoretical Framework

Contemporary Understanding of IE

The Salamanca Statement (UNESCO, 1994) is widely recognized as a significant international milestone in the development of IE (Vislie, 2003). It called for the replacement of special education with inclusive practices, emphasizing the need to include diverse learners in mainstream classrooms rather than segregating them in separate schools or classrooms. Over the past two decades, the concept of inclusion has gradually superseded integration, which was seen as a limited and unsatisfactory approach (Ainscow, 2020). This shift can be attributed to two key factors. Firstly, concerns raised by special education experts highlighted that integration focused solely on placement in mainstream schools, often neglecting the quality of education provided (Terzi, 2010). Secondly, integration efforts often involved directly transferring special education methods to the new school environment without prioritizing the inclusion of students within general education programs (Pijl et al., 1997). While IE initially emphasized the inclusion of individuals with disabilities in mainstream schools, its scope has evolved to encompass an education model that seeks to provide quality education to all individuals (Polat, 2011; UNESCO, 2015). In recent years, many countries have embraced inclusive policies that encourage schools to provide accessible, relevant,

and high-quality IE opportunities to all students (Ainscow, 2020).

There are various conceptualizations of IE, and one prominent conceptualization is proposed by Booth and Ainscow (2002). According to their framework, IE aims to provide education for all learners by establishing inclusive school policies, cultures, and practices. Their conceptualization emphasizes four key principles: (i) adopting the principle of inclusion, (ii) removing barriers to learning and participation, (iii) mobilizing resources to meet the educational needs of all students, and (iv) organizing support for diversity. The dimensional framework developed by Booth and Ainscow (2002) served as a guiding basis for constructing the AIES.

Over the years, the conceptualization of IE as a goal of providing quality education for all individuals within inclusive environments, recognizes that inclusion goes beyond physical placement in mainstream schools and requires the creation of inclusive policies, cultures, and practices that address the diverse needs of learners (Polat, 2011; UNESCO, 2015). IE aims to remove barriers to learning and participation, mobilize resources to support all students' educational needs, and promote a sense of belonging and support for diversity within schools (Booth & Ainscow, 2002). By embracing a holistic perspective on IE, the AIES contributes to capturing the contemporary understanding of IE by assessing school staff's attitudes towards these multifaceted dimensions.

Moreover, the adoption of IE as a policy in various countries has further propelled the need for comprehensive measurement tools that align with the evolving paradigms of inclusion. The recognition of IE as a fundamental right and the commitment to equal opportunities for all students has prompted educators and researchers to assess and monitor the implementation of inclusive practices (Ainscow, 2020). The AIES addresses this need by offering a multidimensional attitude scale that reflects the contemporary understanding of IE. By encompassing dimensions such as the principle of inclusion, barrier removal, resource mobilization, and support for diversity, the AIES contributes to promoting a comprehensive and up-to-date approach to measuring attitudes towards IE.

The development of the AIES aligns with the growing recognition that attitudes play a crucial role in shaping the successful implementation of IE practices. Attitudes of school staff, including teachers, managers, and counselors, significantly influence the inclusive culture and environment within schools (Avramidis & Norwich, 2002). By capturing the nuanced dimensions of attitudes towards IE, the AIES enables researchers, policymakers, and educational practitioners to gain insights into the factors that may enhance or hinder the adoption and implementation of IE principles. The AIES contributes to the theoretical understanding of IE by offering a means to measure and analyze the attitudes of

school staff, facilitating targeted interventions and professional development programs that promote positive attitudes towards IE.

Attitudes Towards IE

To investigate attitudes towards IE, it is important to have a clear understanding of the concept of "attitude." In the social psychology literature, attitude is defined in various ways. Gall et al. (1996) define attitude as "an individual's viewpoint or disposition towards a particular 'object' (a person, a thing, an idea, etc.) (p. 273)." Furthermore, de Boer et al. (2011) and Eagly and Chaiken (1993) argue that attitudes comprise cognitive, affective, and behavioral components. In the present study, the objective was to examine the perspectives of school staff regarding IE, aiming to gain insights into their viewpoints and dispositions towards this educational approach.

de Boer et al. (2011) and Eagly and Chaiken (1993) have outlined the three dimensions of an attitude. The cognitive component pertains to an individual's beliefs regarding the attitude object. In this study, it can be exemplified by school staff's beliefs about IE, such as their belief in the need for adequate managerial support to provide quality education to all students (e.g., "I believe that school staff require sufficient managerial support to ensure quality education for all students"). The affective component involves the emotional aspect of the attitude object. This can be illustrated by school staff's emotions towards supporting all students in accessing quality education in mainstream schools (e.g., "I feel a sense of joy in contributing to the provision of quality education for every student"). The behavioral component reflects an individual's inclination to act in a particular manner towards the attitude object. This encompasses the behavior of staff towards all students in mainstream classrooms (e.g., "I collaborate with relevant stakeholders to meet the educational needs of all my students").

The attitudes of school staff towards IE play a crucial role in determining their inclusive behaviors within schools and impact the learning environment's ability to cater to all learners (MacFarlane & Woolfson, 2013; Monsen et al., 2014). Several factors, such as gender and prior knowledge and experience of IE, have been examined to gain a better understanding of attitudes towards IE. The relationship between gender and attitudes of school staff towards IE remains inconclusive, although some studies suggest more positive attitudes among female staff (Alghazo & Naggar Gaad, 2004; Avramidis & Norwich, 2002; Rakap & Kaczmarek, 2010; Saloviita, 2020).

The influence of prior training on attitudes towards IE has been well established (Rakap et al., 2017; Tait & Purdie, 2000). Understanding the evolving dynamics and trends in school staff's attitudes towards IE is crucial for motivating

practitioners and policymakers to create inclusive classroom environments (Nilholm, 2021; Yakut, 2021). Despite the increasing global emphasis on IE in policy and practice over the past few decades (UNESCO, 2015) and the growing number of children with diverse needs, there are limited validated and published measures specifically designed for this purpose (Ewing et al., 2018). Therefore, by investigating the influence of variables such as gender and prior training within the AIES, the study provides valuable insights into how gender and prior training may shape school staff's attitudes towards IE, thus informing targeted interventions and professional development initiatives that promote positive attitudes among staff members.

The AIES fills a significant gap in the available measures designed to assess school staff's attitudes towards IE. By measuring and assessing these attitudes, the AIES provides valuable insights into the potential barriers or facilitators to the successful implementation of IE policies. Identifying staff members' attitudes towards IE allows for targeted interventions, training, and professional development programs that can address any negative attitudes or misconceptions and promote positive attitudes towards inclusive practices (Booth & Ainscow, 2002; Monsen et al., 2014). Ultimately, this can contribute to creating inclusive learning environments that enhance the educational experiences of all students.

Study Context: Türkiye

Türkiye has been actively engaged in scientific and educational discussions about IE (Sari et al., 2020). Academic research on IE has seen growth, with studies conducted by various authors (Rakap et al., 2017; Sakız, 2017; Yakut, 2021), and the Ministry of National Education (MoNE) in Türkiye has also embraced the concept of IE (MoNE, 2017). However, the current educational policy in Türkiye does not fully reflect the contemporary interpretation and definition of IE, which emphasizes the provision of quality education in inclusive settings for all individuals (Ainscow, 2020; Polat, 2011; Tikly & Barrett, 2011; UNESCO, 2015, 2017). The existing legislation primarily focuses on integration and special education while mentioning inclusion (MoNE, 2017), resulting in the understanding of IE as the education of students with disabilities in mainstream schools (Kilinc, 2019). Although this perspective has led to an increase in the number of students with disabilities in mainstream schools, the narrow definition of IE poses challenges in transitioning from the concept of integration to true IE (Kesik & Beycioğlu, 2022).

The evolution of IE in Türkiye mirrors global developments in this field. Initially, inclusion was seen as a subset of special education, but recent scholarship has underscored the

importance of empowering schools to provide quality education for all learners, irrespective of their diverse characteristics and needs (Firat, 2021; Yakut, 2021). Consequently, when developing and testing the measurement tools, careful consideration was given to the existing research on transitions, definitions, and practices related to IE in Türkiye, as well as the global trends surrounding IE. This ensured that the measurement tools aligned with the current understanding and practices of IE both within Türkiye and internationally.

The AIES holds significant theoretical and practical significance within the Turkish context. While Türkiye has witnessed a growing body of research on IE at the academic level (Rakap et al., 2017; Sakız, 2017; Yakut, 2021), the conceptualization and implementation of IE within educational policies are still in need of further development to achieve a truly IE system. The AIES contributes to the theoretical landscape by providing a measurement tool that aligns with the contemporary conceptualizations of IE, thereby addressing the gap between research and policy. By assessing school staff's attitudes towards IE within the Turkish context, the scale offers insights into the readiness and perceptions of educators, managers, and counselors regarding the shift towards inclusive practices in schools.

Moreover, the AIES holds practical significance for Türkiye by serving as a valuable resource for informing evidence-based decision-making and policy formulation. As Türkiye aims to strengthen its capacity to provide quality education for all learners, irrespective of their characteristics and needs, the scale can inform targeted interventions and professional development initiatives. By identifying areas of strength and areas requiring improvement in school staff's attitudes towards IE, the scale enables policymakers to design and implement targeted strategies that promote positive attitudes and inclusive practices. Additionally, the scale's validation and utilization within the Turkish context contribute to the growing body of knowledge and best practices in IE specific to Türkiye.

Significance of the Study

The decision to develop a scale for measuring school staff's attitudes towards IE was motivated by four key reasons. Firstly, a comprehensive review of existing attitude scales (e.g., Antonak & Larrivee, 1995; de Boer et al., 2012; Forlin et al., 2011; Hastings & Oakford, 2003; Loreman et al., 2007; Mahat, 2008; Monsen et al., 2015; Ross-Hill, 2009; Sharma et al., 2015; Wilczenski, 1995) revealed a lack of measures specifically tailored to investigate school staff's attitudes towards IE in Turkish-speaking settings. Therefore, the development of an attitude scale within this study

is expected to fill this gap and serve as a pioneering tool for researching IE attitudes among school staff in Türkiye.

The second reason was the observation that existing scales often measured practices related to integration or focused primarily on specific student groups, such as those with disabilities (Ergin, 2019; Forlin et al., 2011; Wilczenski, 1992, 1995). While this focus on integration was understandable given the historical context, it does not fully align with the current understanding of IE, which extends beyond integration. In contrast, the contemporary understanding of IE emphasizes a comprehensive approach that targets the progress and inclusion of all learners in education. The existing attitude scales have not captured this contemporary understanding, highlighting the need for scales that align with the most current conceptualization of IE.

The third reason was the recognition that not all existing scales demonstrated sound reliability and validity, as highlighted by Ewing et al. (2018). Many of the reviewed scales were based on relatively small sample sizes with less than 200 participants (Hastings & Oakford, 2003; Mahat, 2008; Ross-Hill, 2009). Additionally, some scales lacked comprehensive psychometric profiles. For instance, the teacher questionnaire by de Boer et al. (2012) and the scale by Wilczenski (1995) did not report reliability statistics, while others had limited reports of validity (Hastings & Oakford, 2003) or relied on a single method of validity (de Boer et al., 2012; Monsen et al., 2015). Some scales demonstrated partial support for concurrent validity (Antonak & Larrivee, 1995) and weak to moderate construct validity (de Boer et al., 2012). Therefore, this study aimed to develop an attitude scale that addresses the limitations of previous studies and possesses excellent psychometric properties.

The fourth reason was that many existing scales focused primarily on a single professional group, often pre-service teachers who were either students or not yet actively working in schools. For instance, scales developed by Forlin et al. (2011), Loreman et al. (2007), and Sharma et al. (2015) specifically targeted pre-service teachers' attitudes towards IE. While these scales are valuable for preparing teacher candidates for IE, it is equally important to examine the attitudes of practicing school staff who are actively involved in providing services in schools. The attitudes of practicing staff directly influence their current practices and the implementation of IE. Furthermore, scales that encompass all groups of school staff, including teachers, school managers, and counselors, rather than focusing solely on one professional group, can provide a more comprehensive understanding of professional attitudes towards IE within school settings.

In line with the study's ambition to address these gaps, explore the underlying dimensions of the construct under investigation, and enhance the understanding of attitudes towards IE, a factor structure model was employed. Factor structure models serve as an essential tool in unveiling the

intricate dimensions of a construct (Hair et al., 2010), and their use is particularly widespread in the field of IE (e.g., Mahat, 2008). Prior studies have delved into the factor structure of attitude scales, seeking to gain insight into educators' perceptions and attitudes regarding IE (e.g., Forlin & Chambers, 2011). These models vividly mirror the intricate nature of IE (Slee, 2018), encompassing diverse facets such as school culture, educational policy, and school practices (Booth & Ainscow, 2003). Through the application of this model, this study offers a comprehensive view of the multifaceted dimensions of IE.

Methodology and Results

This study includes two methodological phases. The first phase involves developing the AIES. The second phase includes testing the associations between school staff's attitudes towards IE and their age, gender, work experience, and prior training on IE.

Phase 1: Developing the AIES

Participants

A total of 496 school staff participated in this phase ($N_{\text{women}} = 249$ [50.2%], $N_{\text{men}} = 247$ [49.8%]). The participants included teachers ($N = 389$ [78.4%]), school managers ($N = 58$ [11.7%]) and school counselors ($N = 49$ [9.9%]) and they aged between 22 and 65 ($M = 35.90$, $SD = 7.13$). Participants from seven regions of Türkiye were included, and most of them ($N = 472$) worked in public schools. The participants' professional experience ranged between 1 and 37 years ($M = 11.63$, $SD = 7.28$), and they worked in four different education levels ($N_{\text{high school}} = 119$ [24%], $N_{\text{secondary school}} = 183$ [36.9%], $N_{\text{primary school}} = 161$ [32.5%], and $N_{\text{preschool}} = 33$ [6.7%]). Three hundred and three (61.1%) participants stated that they did not receive any training about IE whereas 193 (38.9%) stated that they did. The training on IE that the school staff were requested to self-report, encompassed any pre-service or in-service education, encompassing theoretical knowledge and practical skills aimed at enhancing professionals' comprehension and application of IE within the school context. To qualify as having received training on IE, the staff needed to have participated in at least one dedicated formal training session or workshop explicitly designed to address IE principles and practices.

Process and Materials

The researchers designed a scale to assess attitudes towards IE with a focus on three interconnected dimensions: school culture, educational policy, and school practices. This

dimensionalization was based on the framework proposed by Booth and Ainscow (2002), which emphasized the importance of exploring inclusion across these three domains. The development of the scale involved a thorough literature review of international and national research and policy on IE. The items and dimensions of the AIES were informed by this extensive review. Table 1 provides an overview of the literature sources relevant to the items and dimensions of the AIES. The original Turkish version of the scale and its translated English version can be found online in Appendix A.

To ensure the scale's content validity and alignment with the current understanding of IE, an extensive literature review was conducted (See Table 1). This literature review encompassed a wide range of sources, including international research and policy documents, as well as national studies specific to the Turkish context. By incorporating diverse perspectives and insights from the literature, the item development phase aimed to capture the nuances and complexities of IE within the Turkish educational context.

The item development process involved careful consideration and adaptation of existing scales and items that had been previously validated in relevant research. This approach allowed for the incorporation of established measurement items and concepts while tailoring them to the specific objectives and cultural context of the study. Additionally, new items were developed to address any gaps identified during the literature review and to ensure comprehensive coverage of attitudes towards IE.

To facilitate cross-cultural understanding and accessibility, a rigorous translation process was undertaken. The original Turkish version of the scale was translated into English to enable wider dissemination and utilization of the AIES in international research and comparative studies. The translation process followed established guidelines, including forward translation, back-translation, and a review by bilingual experts to ensure linguistic equivalence and conceptual integrity across both language versions.

The AIES consisted of a total of 48 items. Nineteen items focused on staff's beliefs, feelings, and behaviors related to the necessity and advantages of inclusive school cultures, as well as the inclusiveness of their own schools' cultures. Thirteen items assessed staff's beliefs, feelings, and behaviors regarding the necessity and advantages of inclusive national and school policies, as well as their engagement in policy processes. Sixteen items explored staff's beliefs, feelings, and behaviors concerning the necessity and advantages of inclusive school practices, their schools' inclusive practices, and their opportunities to contribute to the design and implementation of inclusive practices. The following definition of IE was provided in the instructions: "This scale focuses on inclusive education as an approach aimed at delivering high-quality education to all students in mainstream classrooms, irrespective of their abilities, cultural

Table 1 Literature pertaining to the items and dimensions of AIES

Factors	Items	Guiding literature
Inclusive school culture	1. I work to ensure the learning of all students (healthy, disabled, with special needs, refugee, etc.) without distinguishing between differences in inability.	→ Booth and Ainscow (2002), Slee (2018), and UNESCO (2015)
	2. I think that all students are natural members of schools and have the right to receive quality education.	→ Booth and Ainscow (2002) and Loreman et al. (2007)
	3. I make an effort so that every student can actively participate in learning activities.	→ Terzi (2010) and UNESCO (2017)
	4. I believe that school staff (teachers, administrators, psychological counselors, etc.) should have sufficient knowledge, skills, and experience to contribute to the education of all students.	→ Göransson and Nilholm (2014)
	5. I think that in schools, staff should receive adequate and continuous support (in-service, etc.) for their professional needs to provide quality education to all children.	→ Loreman et al. (2007) and Nilholm (2021)
	6. I collaborate with relevant stakeholders to meet the educational needs of all my students.	→ Friend and Bursuck (2019)
	7. I believe that school staff require sufficient managerial support to ensure quality education for all students.	→ Carter and Abawi (2018) and Slee (2018)
	8. I welcome the parents of all my students at school.	→ Friend and Bursuck (2019)
	9. I believe that schools' environmental and physical structure should be made suitable for all students.	→ Richards and Armstrong (2015)
	10. I value every student equally.	→ Kilinc (2019)
	11. I believe that staff in schools should work collaboratively to meet the needs of all students.	→ Booth and Ainscow (2002)
	12. I communicate efficiently with all my students.	→ Mahat (2008)
	13. I strive to remove barriers to the learning of all students.	→ Booth and Ainscow (2002)
	14. I strive to minimize discrimination at school.	→ Kilinc (2019) and Mahat (2008)
	15. I strive to develop a sense of belonging to the school for all students and their families.	→ Friend and Bursuck (2019) and Slee (2018)

Table 1 (continued)

Factors	Items	Guiding literature
Inclusive education policy	16. I think schools need regular and clear policies so that all students can receive a quality education.	→ Monsen et al. (2014) and Tikly and Barrett (2011)
	17. I feel a sense of joy in contributing to the provision of quality education for every student.	→ Friend and Bursuck (2019)
	18. I want to take an active role in preparing policies and regulations for all students to receive a quality education at school.	→ Kilinc (2019) and Tikly and Barrett (2011)
	19. I believe that the school should have clear, precise, and enforceable regulations regarding the inclusion of new students and the education provided to them.	→ Sakız (2018) and Sari et al. (2020)
	20. I think that all students should be supported in a planned and coordinated way.	→ Kesik and Beycioglu (2022)
	21. I provide the necessary support to all my students to help them feel competent.	→ Ainscow (2020) and Slee (2018)
	22. I believe that school regulations should help prevent all forms of discrimination against all students.	→ MoNE (2018) and UNESCO (2017)
	23. I think school regulations should aim to remove barriers to participation for all students.	→ Kesik and Beycioglu (2022)
	24. I think school regulations should help prevent bullying behavior towards students.	→ Loreman et al. (2007)
	25. I think that school regulations should improve cooperation among the school staff.	→ Carter and Abawi (2018)
	26. I believe that the school's policies and regulations should establish cooperation and partnership with families.	→ Booth and Ainscow (2002) and Loreman et al. (2007)
	27. I think that the Ministry of National Education should develop inclusive policies for all children to receive a quality education.	→ MoNE (2017), Sakız and Woods (2015), and Tikly and Barrett (2011)

Table 1 (continued)

Factors	Items	Guiding literature
Inclusive school practices	28. I believe that education should be planned to target the learning of all students.	→ MacFarlane and Woolfson (2013)
	29. I strive to ensure that all students participate actively in their own learning processes.	→ Frykedal and Chiriac (2018)
	30. I strive to ensure that students learn collaboratively with their peers of different ability levels.	→ Loreman et al. (2007)
	31. I believe that the school should plan, teach and evaluate collaboratively with staff and families.	→ Friend and Bursuck (2019)
	32. I think that all students should take part in activities outside the classroom.	→ Booth and Ainscow (2002)
	33. I believe that homework should be structured to target the learning of all students and increase their achievement.	→ Carr (2013)
	34. I think that all students should be given the necessary support to benefit from the general education program to the maximum level.	→ Kesik and Beycioglu (2022) and Mahat (2008)
	35. I believe that services for the individual needs of all students should be well planned.	→ Booth and Ainscow (2002) and Rakap and Kaczmarek (2010)
	36. I believe that cooperation should be established with relevant official institutions (Guidance and Research Center, Provincial Immigration Administration, etc.) to develop students.	→ Göransson and Nilholm (2014) and MoNE (2017)
	37. I strive to use classroom management techniques to increase the participation of all students.	→ Ainscow (2020) and Mahat (2008)
	38. I strive to use different teaching techniques, technologies, and materials so that all students can learn.	→ Booth and Ainscow (2002) and Firat (2021)
	39. I strive to organize the classroom's physical environment in a way that is suitable for the education of all students.	→ Mahat (2008) and Yakut (2021)
	40. I believe that students should be supported individually if they need it.	→ Yakut (2021)
	41. I believe that all students should be observed individually and in groups, and their progress should be monitored.	→ Forslund Frykedal and Hammar Chiriac (2018) and Slee (2018)
	42. If necessary, I utilize different measurement and evaluation methods to assess students' achievement.	→ Bourke and Mentis (2014)
43. I apply realistic and personal criteria for student assessment.	→ Bourke and Mentis (2014)	

background, and personal characteristics.” Each statement in the scale included five forced-choice replies with strongly agree/strongly disagree anchors (“1: Strongly disagree”, “2: Disagree”, “3: Neutral”, “4: Agree”, “5: Strongly agree”).

Prior to commencing the main study, a pilot phase was conducted to evaluate the initial set of items (Lancaster et al., 2004). Sixteen school staff members were recruited to participate in this pilot phase, and their input was sought to examine various aspects of the research protocols, item quality, and recruitment strategies. The participants were

encouraged to provide comprehensive feedback and share their opinions on the scale's content, structure, and clarity. Upon analyzing the feedback received from the pilot participants, it was identified that certain items required revision to enhance their language and improve comprehension. Specifically, five items were flagged as needing further attention to ensure they accurately captured the intended constructs and were easily understandable by the respondents. These revisions aimed to address any

ambiguities or complexities that might hinder the participants' ability to provide accurate and reliable responses.

To validate the revisions made during the pilot phase, the updated version of the scale, incorporating the suggested modifications, was sent to three experts in the field of IE. These experts were carefully selected based on their extensive educational background, substantial work experiences, and familiarity with the processes involved in scale development. The first expert, a professor of IE with a distinguished academic record and numerous publications in the field, has played a pivotal role in shaping IE policies at the national level. The second expert holds a Ph.D. in Special Education and has over 15 years of experience in IE research, curriculum development, and teacher training. The third expert, with a Master's degree in Educational Psychology, has been actively engaged in designing and implementing inclusive practices in various school settings for over a decade. Their experience in designing intervention programs for students has contributed to their understanding of the nuanced aspects of IE implementation. With a record of conducting workshops and seminars for educators, all experts have played a significant role in translating research findings into practical strategies for IE. The feedback received from these experts was overwhelmingly positive, underscoring the comprehensive appropriateness and relevance of the scale. While two experts praised the scale's thoroughness and alignment with contemporary paradigms of inclusion, one expert provided insightful feedback regarding the clarity and precision of a specific item. This feedback was meticulously considered, leading to the necessary modification of the concerned item, thereby enhancing the overall quality of the scale.

Following the final round of revisions, the scale was deemed ready for implementation in the main study. Despite the pilot phase being conducted with a relatively small number of participants, the preliminary findings indicated that the revised scale demonstrated appropriate psychometric properties and was effective in capturing the targeted constructs. This validation of the scale's functionality provided confidence in its ability to yield reliable and meaningful results when administered to a larger sample in the subsequent main study.

The developed measure consists of 43 items, which were selected from the initial item pool after administering and analyzing the 48-item scale. The scale is composed of three factors: 'inclusive school culture,' 'inclusive education policy,' and 'inclusive school practices.' Each item is scored using a Likert-type scale with responses ranging from 1 (strongly disagree) to 5 (strongly agree). The raw scores of each item are summed to obtain a total score on the AIES, which can range from 43 (least favorable) to 215 (most favorable). Factor scores can also be obtained by summing the raw scores of the items within each factor. The scale does not include any reverse-scored items. A higher score on

the scale indicates more positive attitudes towards IE. The administration time for the scale is approximately 15 min, and no specific training is required for those administering it.

Results

To examine the internal structure of the 48-item AIES, an Exploratory Factor Analysis (EFA) was conducted using principal components analysis (Tabachnick & Fidell, 2007). The analysis involved visually inspecting the Eigenvalues and screen plots to determine the number of factors to extract. Varimax rotation was applied to facilitate the interpretation of the factor structure.

During the initial analysis, four factors emerged, and all items were included, accounting for a total variance of 83.31%. Each item demonstrated a common variance value above 0.5. However, upon evaluating the distribution of items across factors based on the criteria of aligning with the anticipated factor structure (culture, policy, and practice) and having a strong loading above 0.5, it was observed that five items (four from 'culture' and one from 'policy') formed a separate factor that was not anticipated. To ensure consistency with the theoretical framework and anticipated factor structure, these items were subsequently dropped. The analysis was then repeated with the remaining items.

According to the latest review, Bartlett's test of sphericity was significant, $\chi^2(903) = 36.584$, $p < 0.001$, and according to the Kaiser–Meyer–Olkin test result ($KMO = 0.988$), the sample size was sufficient (Tabachnick & Fidell, 2007). There were three factors with an eigenvalue above 1.00, and these factors explained 84.81% of the total variance (Table 2).

After refining the scale, the AIES was finalized with 43 items and three factors, demonstrating excellent internal consistency ($\alpha = 0.991$). The items within each factor exhibited conceptually meaningful, consistent, and distinct pattern loads. The first factor, 'inclusive school practices,' comprised sixteen items ($\alpha = 0.989$), the second factor, 'inclusive school culture,' consisted of fifteen items ($\alpha = 0.984$), and the third factor, 'inclusive education policy,' comprised twelve items ($\alpha = 0.991$). All three factors showed significant correlations with each other, indicating interrelatedness (see Table 3).

The item-total correlations of the AIES were examined to assess the relationship between individual items and the overall construct of attitudes towards IE. These correlations provide valuable insights into the contribution of each item to the measurement of the construct. A complete list of the item-total correlations can be found in Online Appendix B. The item-total correlations of the AIES indicate a strong association between the individual items and the overall scale. Higher item-total correlations suggest that the items

Table 2 AIES items, factor loadings and statistics

Dimensions and items numbers	Factors			Statistics			
	Practices	Culture	Policy	M	SD	Skewness	Kurtosis
Practices11	0.796	0.369	0.341	4.19	1.079	- 1.654	2.212
Practices12	0.792	0.369	0.315	4.18	1.096	- 1.633	2.122
Practices10	0.788	0.384	0.354	4.23	1.097	- 1.746	2.437
Practices15	0.774	0.375	0.337	4.15	1.092	- 1.566	1.900
Practices8	0.769	0.404	0.384	4.32	1.119	- 1.929	2.876
Practices7	0.768	0.407	0.394	4.30	1.096	- 1.857	2.714
Practices9	0.767	0.382	0.405	4.36	1.094	- 2.013	3.278
Practices13	0.767	0.412	0.394	4.31	1.069	- 1.924	3.104
Practices14	0.763	0.395	0.406	4.30	1.115	- 1.895	2.832
Practices4	0.759	0.358	0.383	4.27	1.104	- 1.830	2.661
Practices2	0.751	0.413	0.378	4.26	1.118	- 1.807	2.519
Practices6	0.750	0.311	0.320	4.15	1.141	- 1.537	1.599
Practices3	0.733	0.442	0.376	4.20	1.080	- 1.672	2.256
Practices16	0.732	0.360	0.329	4.12	1.092	- 1.500	1.693
Practices1	0.710	0.419	0.408	4.34	1.117	- 1.949	2.887
Practices5	0.693	0.370	0.355	4.13	1.158	- 1.431	1.159
Culture17	0.441	0.731	0.360	4.30	1.031	- 1.881	3.241
Culture18	0.425	0.729	0.411	4.40	1.055	- 2.146	3.981
Culture19	0.406	0.722	0.425	4.31	1.047	- 1.896	3.134
Culture12	0.417	0.714	0.407	4.30	1.058	- 1.856	2.954
Culture13	0.413	0.708	0.446	4.39	1.099	- 2.028	3.245
Culture6	0.413	0.706	0.405	4.45	1.051	- 2.221	4.184
Culture4	0.435	0.704	0.382	4.36	1.068	- 2.072	3.697
Culture8	0.420	0.699	0.368	4.21	1.044	- 1.769	2.840
Culture15	0.422	0.695	0.464	4.40	1.061	- 2.050	3.491
Culture1	0.426	0.690	0.354	4.34	1.072	- 1.967	3.252
Culture14	0.361	0.686	0.353	4.28	1.093	- 1.776	2.469
Culture2	0.406	0.680	0.415	4.42	1.107	- 2.135	3.584
Culture7	0.409	0.677	0.424	4.30	1.089	- 1.833	2.694
Culture16	0.347	0.665	0.308	4.04	1.113	- 1.289	1.034
Culture9	0.403	0.662	0.445	4.33	1.084	- 1.944	3.111
Policy11	0.417	0.415	0.760	4.36	1.097	- 2.036	3.388
Policy13	0.403	0.382	0.755	4.34	1.119	- 1.960	2.969
Policy12	0.415	0.406	0.747	4.34	1.079	- 1.930	3.033
Policy8	0.408	0.419	0.743	4.36	1.083	- 2.009	3.282
Policy10	0.414	0.433	0.742	4.38	1.091	- 2.032	3.288
Policy9	0.404	0.432	0.742	4.33	1.102	- 1.932	2.955
Policy5	0.416	0.382	0.740	4.26	1.066	- 1.741	2.506
Policy6	0.398	0.442	0.740	4.30	1.080	- 1.857	2.809
Policy7	0.420	0.434	0.724	4.27	1.087	- 1.785	2.571
Policy1	0.447	0.429	0.693	4.31	1.110	- 1.908	2.880
Policy2	0.420	0.439	0.688	4.28	1.071	- 1.831	2.806
Policy3	0.387	0.422	0.626	4.06	1.116	- 1.355	1.254
Unrotated Eigenvalues total	33.31	1.901	1.258				
% of variance accounted for the following rotation	77.465	4.422	2.926				

N = 496. Rotated loadings of EFA above 0.5 are shown in bold

Table 3 Descriptive statistics and correlations between factors and overall scores

Factors	<i>M</i>	<i>SD</i>	Culture	Practices	Policy
Culture	4.32	0.97	1		
Practices	4.30	1.02	.890**	1	
Policy	4.24	1.02	.869**	.856**	1

N=496. All correlations significant at the $p < .001$ level (2-tailed). Cronbach's alphas are shown in the diagonal

effectively capture the underlying construct and contribute to the overall measurement.

To test whether the factors' measures were consistent with the hypothesized measurement model, a Confirmatory Factor Analysis (CFA) was used. First, the item standardized regression weight revealed that all items' values were over 0.5. Second, the three-factor and 43-item model was analyzed via standard fit indices (χ^2/df , comparative fit index [CFI], standardized root means square residual [SRMR], and root mean square error of approximation [RMSEA]). Before item modification, the model was good and had acceptable fit in terms of the indices ($\chi^2 (857) = 2740.877$, $p < 0.001$, $\chi^2/df = 3.198$, CFI = 0.949, TLI = 0.946, SRMR = 0.018, RMSEA = 0.067 [0.064, 0.069]).

To improve the model, a covariance path was adopted based on modification indices. Correlating error terms is a common practice in larger models, where more than 20 modifications can be employed to improve model fitness (Collier, 2020). In this study, a limited number of error term correlations (six in total) were introduced between items within the same structure, strategically selected to enhance model fitness. The error term correlations were also selected based on theoretical considerations and modification indices, aiming to improve the goodness of fit. Attitudes towards IE encompass complex and multifaceted constructs that may not be fully captured by individual items in isolation (Monsen et al., 2014). Correlating error terms acknowledges the potential overlap in item content and the presence of common method variance, which can arise due to shared response biases or measurement artifacts. By accounting for the correlated errors, the model can better capture the unique and shared variance among the items, resulting in a more comprehensive and nuanced representation of attitudes towards IE (Collier, 2020). The inclusion of the carefully selected correlations strengthened the robustness and validity of the latent construct in the AIES. Although the initial model without modifications exhibited acceptable fitness, subsequent adjustments significantly enhanced the goodness of fit, as demonstrated by the improved model fit indices ($\chi^2 (851) = 2434.389$, $p < 0.001$, $\chi^2/df = 2.861$, CFI = 0.957, TLI = 0.954, SRMR = 0.017, RMSEA = 0.061 [0.058, 0.064]) (Fig. 1).

To analyze the scale factors' reliability, convergent validity, and discriminant validity, the Average Variance Extracted (AVE), Composite Reliability (CR), and Shared Variance were calculated. All factors' CR values were higher than 0.7 (Table 4), showing appropriate construct reliability (Fornell & Larcker, 1981). Also, all factors' AVE values were higher than 0.5, indicating construct validity. The factors' AVE values were higher than all shared variance, indicating discriminant validity between factors (Hair Jr et al., 2010). All factors' CR values were higher than the AVE values, showing convergent validity (Yaşlıoğlu, 2017).

Additionally, a higher-order CFA was conducted to examine the hierarchical structure of the AIES. The higher-order CFA results revealed a satisfactory fit for the hierarchical model, consistent with the conceptualization of IE as encompassing distinct dimensions. However, despite the viability of the higher-order model, retaining the individual subscales is preferred to capture educators' attitudes towards IE. This choice aligns with diverse theoretical frameworks, recognizing the interrelated yet distinct nature of IE's dimensions.

Phase 2: Testing the Associations Between School Staff's Attitudes and Their Age, Gender, Work Experience, Educational Level Engaged with and Prior Training on IE

The second phase of this research takes a purposeful stride forward, aiming to deepen the understanding of the complex nature of school staff's attitudes towards IE. While Phase 1 addressed the task of developing a reliable and valid tool to assess school staff's attitudes towards IE, Phase 2 delved into the deeper understanding of these attitudes by examining their relationships with age, gender, educational level engaged with, work experience, and prior training on IE. Therefore, the design of the two-phased approach not only capitalizes on the strengths of each phase but also offers a more comprehensive and well-rounded investigation into the multifaceted nature of school staff's attitudes towards IE.

The participants involved in the two phases of this study were distinct and non-overlapping. This decision was grounded in a deliberate strategy. First, by employing two different samples, the study capitalizes on the intrinsic strengths of each phase while mitigating potential biases that could arise from using the same sample for both scale development and subsequent validation (Drost, 2011). Second, the separation of participants serves to safeguard against overfitting and data-driven artifacts, thereby bolstering the credibility and generalizability of findings (Hinkin, 1998). This methodological rigor not only enhances internal validity by preventing contamination of data, but also enables robust external validity, allowing the study's conclusions to be confidently extended to a broader population of school staff (Lakens et al., 2018).

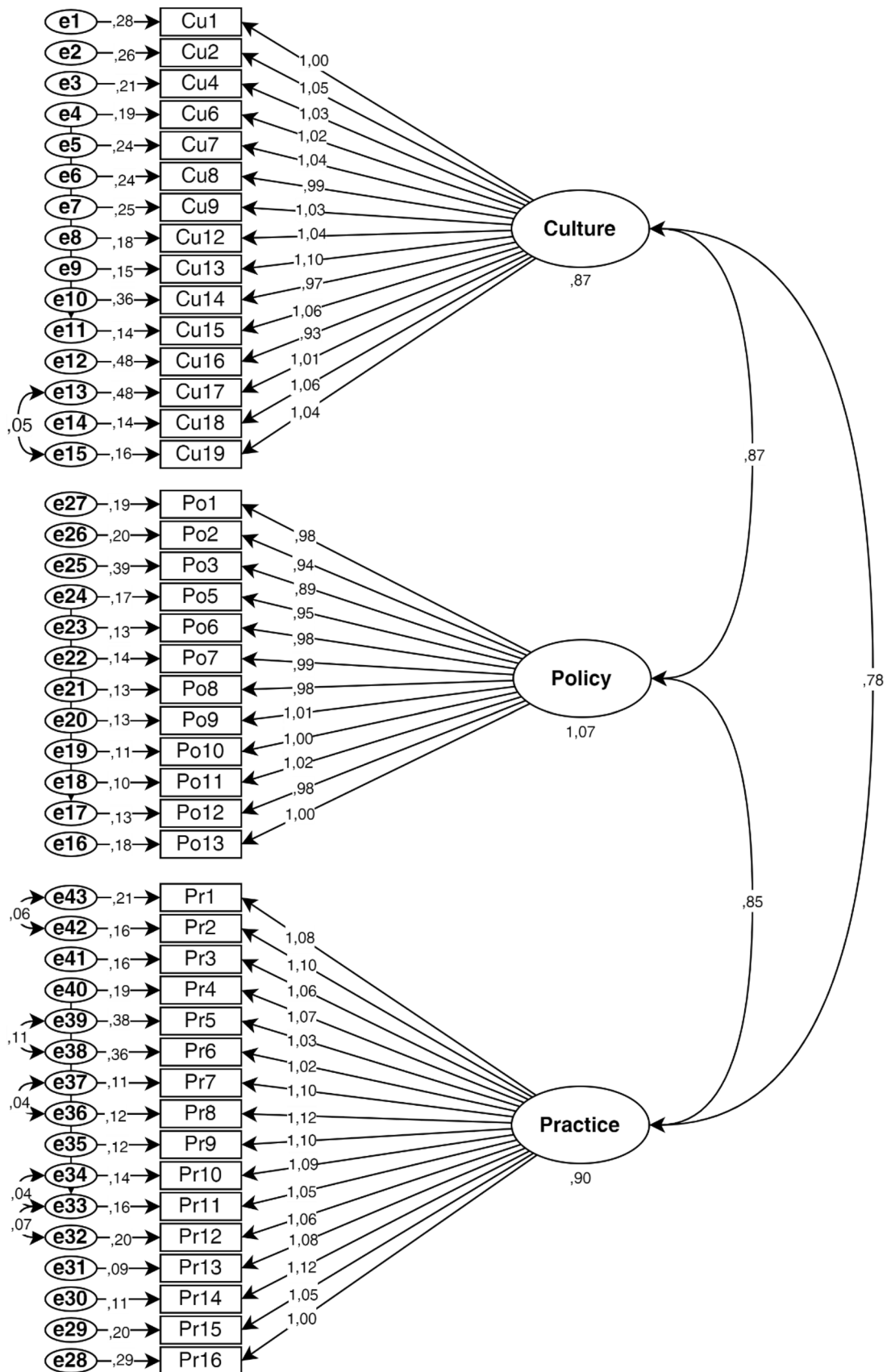


Fig. 1 Covariance paths

Table 4 AVE, CR and Shared Variance for the factors of AIES

Factors	AVE	CR	Shared variance		
			Culture	Practices	Policy
Culture	0.80	0.98	1		
Practices	0.86	0.96	0.792	1	
Policy	0.85	0.99	0.755	0.733	1

Participants

In the second phase of the study, 225 school staff ($N_{men} = 104$ [46.2%], $N_{women} = 121$ [53.8%]) participated in measurement. Participants from all seven regions of Türkiye included teachers ($N = 177$ [78.7%]), school managers ($N = 29$ [12.9%]), and school counselors ($N = 19$ [8.4%]) and aged between 22 and 59 ($M = 34.83$, $SD = 7.47$). The majority of the school staff ($N = 196$ [87.1%]) worked in public schools. The participants' professional experience ranged between 1 and 31 years ($M = 9.89$, $SD = 7.37$) and they worked in four different education levels ($N_{high\ school} = 83$ [36.9%], $N_{secondary\ school} = 44$ [19.6%], $N_{primary\ school} = 72$ [32%], and $N_{preschool} = 26$ [11.5%]). One hundred and fifty-one (67.1%) participants stated that they did not receive any training about IE whereas 74 (32.9%) stated that they did.

Process and Materials

Before testing the hypotheses, the psychometric properties of the AIES were checked. CFA analysis of the AIES was similar to the CFA results of its development (Phase 1). Without modification, the model was good and had an acceptable fit in terms of the indices ($\chi^2(857) = 1781.459$, $p < 0.001$, $\chi^2/df = 2.079$, CFI = 0.935, TLI = 0.931, SRMR = 0.0238, RMSEA = 0.069[0.065, 0.074]). Cronbach's alpha values of the scale and its factors were excellent. The original scale's internal consistency values were $\alpha = 0.99$ for 'policy', $\alpha = 0.98$ for 'practices', and $\alpha = 0.98$ for 'culture'. In the current study, each factor had excellent internal consistencies; $\alpha = 0.99$ for 'policy', $\alpha = 0.98$ for 'practices', and $\alpha = 0.98$ for 'culture'. The AVE and CR values of the AIES' factors were also great (AVE values

of the subscales were between 0.77 and 0.82; CR values of the subscales were between 0.95 and 0.98).

Three inferential statistical methods were applied to test the associations between attitudes towards IE, and some demographic variables. First, the correlations between the AIES, its subscales, age and work experience were tested via Pearson Moment Correlation. Participants' age and work experience did not correlate significantly with AIES and its dimensions (Table 5).

Secondly, to explore potential variations in school staff's attitude changes based on the educational levels they were engaged in, a one-way analysis of variance (ANOVA) was conducted. The outcomes indicated that there were not significant changes in school staff's attitudes, both concerning the total AIES score [$F(3, 221) = 1.094$, $p = 0.352$], and the dimensions of AIES culture [$F(3, 221) = 1.080$, $p = 0.359$], AIES practices [$F(3, 221) = 0.639$, $p = 0.591$], and AIES policy [$F(3, 221) = 1.668$, $p = 0.175$].

Third, whether attitudes towards IE changed according to school staff's gender and prior training on IE were tested. An independent sample *t*-test for gender and prior training on IE was used to analyze the change in attitudes according to the variables. Attitudes changed significantly according to gender and prior training on IE. First, women had significantly more positive attitudes than men on the total score of AIES and its three dimensions. Next, those who reported prior training on IE had significantly higher scores on AIES. The computation of effect sizes for the changes in attitudes based on gender and prior training, both for the total AIES score and its dimensions, yielded values ranging from 0.25 to 0.46. Cohen (2013) outlines the interpretation of Cohen's *d* as follows: ≤ 0.20 indicating a small effect, 0.50 signifying a medium effect, and ≥ 0.80 representing a large effect. In the context of this study, the effect size for the gender difference in the total AIES score was calculated at 0.30, indicating a small effect. Moreover, individuals with prior training in IE displayed higher scores on the total AIES score. For the difference based on prior training, the effect size was 0.46, indicating a medium effect. The detailed results are presented in Table 6.

Table 5 Means, standard deviations, and correlations between variables

Variables	<i>M</i>	<i>SD</i>	1	2	3	3.1	3.2	3.3
1. Age	34.83	7.47	1					
2. Work experience	9.89	7.37	.900**	1				
3. ASIE total score	173.54	44.20	-.090	-.066	1			
3.1. ASIE-culture	61.04	16.02	-.100	-.069	.968**	1		
3.2. ASIE-policy	48.46	13.11	-.098	-.079	.942**	.879**	1	
3.3. ASIE-practice	64.04	16.98	-.064	-.046	.962**	.898**	.850**	1

** $p < .01$, $N = 225$

Table 6 Summary of the change in attitudes towards IE according to gender and prior training

	Gender				<i>t</i>	<i>p</i>	<i>d</i>	Prior training on inclusive education						
	Female		Male					Not trained		Trained		<i>t</i>	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
ASIE total	179.77	38.26	166.30	49.42	2.301	.022*	.30	150.31	45.36	170.14	41.23	- 3.571	.007*	.46
ASIE-culture	63.33	13.54	58.38	18.19	2.336	.020*	.30	57.75	16.05	63.68	15.73	- 2.735	.014*	.37
ASIE-policy	50.12	11.27	46.53	14.78	2.066	.040*	.27	46.70	13.20	50.03	12.86	- 1.255	.051	.25
ASIE-practice	66.31	14.87	61.39	18.88	2.185	.030*	.28	60.87	17.47	66.43	15.79	- 2.483	.019*	.33

* $p < .05$, $df = 223$, $d = \text{Cohen's } d$

Discussion

This study had two primary objectives. The first aim was to address the necessity for a reliable scale to assess the attitudes of school staff in Türkiye towards IE. To fulfill this aim, the AIES was developed. The second objective was to examine the relationships between school staff's attitudes towards IE and their age, gender, work experience, and prior training on IE. The AIES demonstrated robust psychometric properties, indicating its reliability and validity. Furthermore, notable associations were found between school staff's attitudes towards IE, their gender, and their previous training on IE.

First, a 43-item Likert-type attitude scale was created to assess attitudes towards IE in Türkiye. The scale aimed to capture attitudes related to three key aspects of IE: school culture, educational policy, and school practices. To ensure the validity of the scale, practicing school staff, including teachers, managers, and counselors, participated in the validation process. The findings of the study confirmed the scale's excellent reliability, supporting its suitability for measuring school staff's attitudes towards IE in future research.

Attitudes towards IE encompass multiple dimensions. A crucial aspect of school staff's attitudes towards IE involves assessing the impact of student differences on learning and determining the necessary school practices, culture, and policies to meet their educational and individual needs, ensuring positive school experiences for all students (Monsen et al., 2014). Negative attitudes towards IE among school staff can result in lowered expectations for students, leading to limited learning opportunities (Rakap et al., 2017). The AIES can be utilized to evaluate the attitudes of school staff, who have the responsibility of educating all students, and to track changes in attitudes following experiences with a diverse student body in their schools. The development of IE in schools encompasses various interconnected aspects, including the progressive establishment of inclusive cultures, policies, and practices.

Throughout its evolution, IE has been defined and conceptualized in various ways. Some definitions considered it as a subset of special education (Smith, 2014), while others focused on the integration of students with special needs into mainstream schools (McCoy, 1995). However, the prevailing global understanding of IE is as a comprehensive educational approach that aims to provide high-quality education to all learners, regardless of their individual differences (Polat, 2011). This inclusive approach has been widely adopted worldwide and has played a significant role in promoting access and participation in education for diverse individuals (UNESCO, 2017). The development of the AIES aligns with this conceptualization, aiming to assess whether school staff possess the attitudes necessary to create an inclusive educational system that caters to the needs of all learners.

The present study revealed significant gender differences favoring female school staff in their attitudes towards IE. This finding is consistent with prior research conducted by Saloviita (2020) and Alghazo and Naggat Gaad (2004) in Finland and the United Arab Emirates, respectively, where female teachers demonstrated more positive attitudes towards IE compared to their male counterparts. Looking at the effect size of the differences, Saloviita (2020) reported a gender difference with an effect size of $d = 0.22$. This difference, albeit slightly smaller than the current study's values, aligns with the finding of this study and suggests a trend of more positive attitudes among female school staff. Furthermore, it is worth noting that while Alghazo and Naggat Gaad (2004) also identified significant gender differences, they did not report an effect size. Despite this, the convergent pattern of gender differences in multiple studies underscores the robustness of this finding. However, it should be noted that these findings contrast with the results of certain studies. For instance, Sharma et al. (2015) found that male teachers in Pakistan exhibited more positive attitudes towards IE than female teachers. Similarly, Avramidis and Norwich (2002), Rakap and Kaczmarek (2010), and Van Reusen et al. (2001) reported no gender differences in attitudes towards

IE in England, Türkiye, and the United States, respectively. Additionally, Forlin et al. (2007) found inconclusive results regarding gender differences in Canada, Hong Kong, Australia, and Singapore. These variations across studies are likely influenced by cultural, methodological, theoretical, and personal factors that warrant further exploration and discussion.

It was hypothesized that school staff's attitudes towards IE would be influenced by their prior training on IE, which is associated with increased knowledge and awareness. Previous studies have consistently shown that training programs aimed at preparing school staff to work with students with diverse needs in inclusive classrooms can enhance their knowledge (Rakap et al., 2017; Tait & Purdie, 2000). Turning attention to the effect sizes for the difference in attitudes, Tait and Purdie (2000) identified significant differences in attitudes towards IE based on training, albeit with minimal magnitudes of differences, as indicated by η^2 values of less than 0.02. This subtle effect aligns with the view that even slight variations in training can impact attitudes. Furthermore, a study by Rakap et al. (2017) found significant differences favoring those who received prior training in IE, with a larger magnitude of difference indicated by $\eta^2 = 0.66$. The current study's effect size values fall between these two extremes, highlighting an influence of prior training on attitudes towards IE.

In the present study, participants who had received prior training on IE exhibited significantly more positive attitudes towards IE. It is argued that as school staff acquire greater knowledge through training on IE, they are more likely to develop positive beliefs, attitudes, and behaviors towards IE, thus promoting inclusiveness in their classrooms and schools. Both training on IE and positive attitudes are crucial for achieving the goal of inclusion. The literature consistently emphasizes that cultivating positive attitudes among school staff is an essential initial step towards realizing IE (MacFarlane & Woolfson, 2013).

Limitations and Conclusion

Despite the careful execution of this study, several limitations should be acknowledged. Firstly, the sample consisted of school staff, including teachers, counselors, and managers, from various regions in Türkiye. However, caution should be exercised in generalizing the findings to all school staff in the country, as the sample may not be fully representative. Moreover, the voluntary nature of participation introduces the potential for self-selection bias, as those who volunteered may have different attitudes compared to non-participants. Secondly, while the AIES provides valuable insights into the attitudes of school staff, it does not delve into the underlying factors driving these attitudes. To

gain a more comprehensive understanding, a multi-method approach combining surveys with qualitative methods such as interviews could be employed to explore the underlying causes and contextual factors influencing attitudes. Thirdly, the study suggests that further research with larger sample sizes would be beneficial to examine the factor structure of the AIES and investigate attitudes of school staff in areas not covered by the current scale. Additionally, conducting cross-cultural comparisons and examining the generalizability of the scale items through replication studies would enhance the robustness of the findings.

When fostering the development of IE and motivating school staff towards this goal, it becomes crucial to possess a thoroughly tested, documented, and validated measure of attitudes towards IE. This study focuses on the creation of a 43-item scale designed to assess attitudes towards IE, utilizing data obtained from a substantial sample. The scale encompasses three fundamental dimensions of IE: inclusive school culture, inclusive education policy, and inclusive school practices. The AIES, as a result of this research, stands as a dependable, valid, and user-friendly instrument for evaluating attitudes towards IE.

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Data Availability Data is available with the article.

Declarations

Conflict of interest No conflict of interest is reported by the authors.

Ethical Approval Ethical approval for the research was obtained from Mardin Artuklu University.

Informed Consent All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national). Informed consent was obtained from all participants for being included in the study.

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