Scientific journal of physical and sports education(RSEPS)
(ISSN): 1135-1111 / EISSN 2661 - 7358
https://www.asjp.cerist.dz/en/PresentationRevue/452

Volume: 25/ N°: 01 (2026), p 60-81

Analyzing Teachers' Attitudes toward the Participation of Students with Special Needs in School Sports Activities From Stereotype to Pedagogical Practice

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Received: 25/08/2025 **Accepted: 11/12/2025**

Abstract

This study sought to investigate the perspectives of physical education instructors regarding the involvement of students with special needs in school sports, emphasizing the transition from educational practices. A stereotypical views to genuine inclusive analytical -descriptive methodology was employed, encompassing a sample of 22 physical education instructors from various educational levels. Data were gathered using a validated questionnaire assessing attitudes Way ANOVA-practices, and analyzed via parametric statistical tests, including One and inclusive .s correlation coefficient'and Pearson

The findings indicated statistically significant variations in teachers' attitudes based on type of training, with specialized training educational level, years of experience, and .demonstrating the most substantial positive effect

Keywords: Attitudes, Physical Education, Special Needs, School Inclusion, Inclusive Practices

Article info

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1. Introduction

With the background of sustained educational reforms with the aim of integrating inclusive education bases into schools (United Nations, 2006, p. 12), there are raised issues around the utility of sporting activities as a means to enable students with special needs to participate in school activities (Block, 2016, p. 88).

However, even these attempts are dependent on teachers' assumptions and attitudes—often referred to as stereotypes (Lippmann, 1922, p. 61)—about the abilities of this group.As such, the current research derives its importance from exploring teachers' attitudes towards the inclusion of students with special needs in sports activities, as well as from determining the degree to which these attitudes have evolved from simple stereotypical perceptions (Allport, 1954, p. 45) into concrete pedagogical practices among Algerian schools (Freire, 2000, p. 72).

Current research in education also shows that the effectiveness of inclusion in sports education is not just dependent on infrastructure availability or educational policy, but also—most importantly—on the preparedness of teachers and the application of inclusive teaching practices (Sherrill, 2017, p. 102; Smith & Green, 2018, p. 354).“Teachers with positive attitudes towards inclusion and higher pedagogical competence are more likely to implement inclusive practices effectively and create learning environments that encourage the participation of all students, including those with special needs.”(Sharma & Nuttal,2015,p.150)

An instructor with a positive disposition towards inclusion and pedagogical competence of adaptation is more capable of creating an interactive learning environment that enhances the participation of all students, such as students with special needs

This is in line with global perspectives that view physical activity as a means to improve educational equity and equal chances (United Nations, 2006, p. 14).

2.Research Problem:

Despite trends in education advocating for the inclusion of students with disabilities into all school activities (United Nations, 2006, p. 12), their participation in sporting activities remains limited or symbolic (Hodge, Lieberman, & Murata, 2018, p. 134).

This may be related to teachers' attitudes and stereotypes of this group (Lippmann, 1922, p. 61), as previous research has determined that negative attitudes constitute one of the greatest barriers to effective inclusion (Allport, 1954, p. 45).

The majority of teachers are not adequately endowed with fair teaching methods when they join the profession (Erden, 2009, p. 409).

Research findings in the field of physical education indicate that adapted sports activities effectively contribute to enhancing the psychological and social adjustment of individuals with special needs, by engaging them in adaptive educational and training situations that help build self-confidence and foster a sense of ability to integrate and interact positively with others (Nattah, Seghiri, & [Author], 2020).

Contemporary educational literature further suggests that the success of inclusion in physical education depends not only on the availability of infrastructure or educational policies, but also—primarily—on teachers' readiness and their adoption of inclusive teaching strategies.

2.1. General Research Question:

How much do physical education instructors at various educational levels think that including students with special needs in school sports is a good idea, and how much do these beliefs translate into effective teaching methods?

2.2. Sub-Questions:

1.To what extent are physical education teachers at every stage of education conversant with the principles of inclusion in sport and inclusive physical education?

2. In what ways do the independent variables of level of education, years of experience, and type of training influence the attitudes of physical education teachers toward inclusion of students with special needs?

3.Were physical education teachers' attitudes shifted from stereotypical perceptions towards actual pedagogic practices favoring inclusion of students with special needs in sporting activity?

3.Hypotheses:

3.1. General Hypothesis:

The degree to which physical education teachers' opinions about including students with special needs in school sports activities are mirrored in their actual pedagogical practice is statistically correlated with their attitudes toward this topic.

3.2. First Sub-Hypothesis:

Depending on the educational level, physical education teachers' awareness of the ideas of inclusive physical education and sports inclusion varies statistically significantly.

3.3. Second Sub-Hypothesis:

Depending on their level of education, years of experience, or training, physical education teachers' opinions regarding the involvement of students with special needs in sports activities vary statistically significantly.

3.4. Third Sub-Hypothesis:

The degree to which physical education teachers use inclusive pedagogical approaches in sports activities is statistically correlated with their attitudes toward students with special needs.

4. Study Objectives:

-To measure the level of awareness the physical education teachers have of the principles of sport inclusion and inclusive physical education.

-To establish the impact of some demographic variables (degree of education, number of years experienced, training type, etc.) on the attitudes of physical education teachers regarding the integration of students with special needs.

-To investigate the relationship between physical education teachers' attitudes and the extent to which they actually implement inclusive teaching methods in the sport activities.

-To outline any potential differences in attitudes and practices among the three levels of schools (primary – middle – secondary).

-To suggest targeted training and development mechanisms to rectify stereotypes and build inclusive practices in physical education.

5. Significance of the Study:

-This study contributes to the enrichment of educational research on the inclusion of students with special needs in sports activities, particularly in the Algerian context.

-It informs us about the interplay between stereotypes and physical education teachers' attitudes, an angle that has not been treated well by past research.

- integrates psychological, social, and pedagogical aspects, it is therefore a multidimensional theoretical reference in the adapted physical education area.

-It provides a scientific foundation for analysis of teachers' professional attitudes to underpin the structure of their academic training curriculum.

-It helps in trying to develop the educational environment of schools through a focus on the teacher's mediating role in including through physical activity.

-It helps in the dissemination of school culture on the grounds of acceptance and integration through the mediation of sport as a means for solidarity and healthy interaction.

6. Previous Studies:

6.1. First Study: Antala, Průžek & Popluhárov (2022)
Title: Self-Efficacy and Attitudes of Physical Education Teachers towards Inclusion of Pupils with Disabilities

-Objective: To examine the relationship between teacher self-efficacy and their attitudes towards inclusive education by admitting students with disabilities into mainstream schools in Slovakia.

-Main Findings: The results of the study were that the actual experience of the teachers in managing the students with disabilities, attending APA/APE specialization courses, and the type of the disability significantly influence teachers' self-efficacy and attitude with a moderate positive relationship between the two variables.

6.2. Second Study: Beyazoğlu & Özbek (2024)
Title: The Attitudes of Physical Education Teachers towards Teaching Students with Disabilities: A Qualitative Research in Turkey

Objective: A qualitative investigation of physical education teachers' attitudes toward teaching students with disabilities, grounded in the Theory of Planned Behavior.

-main findings: Semi-structured interviews of 14 male and female teachers revealed that the majority of them had negative attitudes due to inefficient training and the inability to embrace inclusive education philosophy, even with the support of institutions.

6.3. Third Study: Saudi Arabia Study (Published in *Frontiers in Psychology*, 2022–2023)
Title: Attitudes of Saudi Arabian PE Teachers toward Inclusion of Students with Disabilities in Physical Education Classes

-Objective: To measure attitudes and investigate the influence of demographic variables such as gender, age, and experience, through the SACIE-R scale, on a sample population of over 1,300 teachers.

Main Findings: Moderately positive attitudes were discovered in the study, with statistically significant gender differences (more positive for females). Decreased teaching experience and receiving adaptive physical education training positively affected attitudes.

6.4. Fourth Study: Systematic and Mixed-Methods Review (*International Journal of Disability, Development, and Education*, 2022)
Title: *Inclusion in Physical Education: Teachers' Attitudes towards SEND Students*

-Objective: To conduct a systematic and meta-analytic review of studies on physical education teachers' attitudes toward the inclusion of students with special educational needs and disabilities (SEND).

-Main Findings: Overall attitudes were positive, but less so toward students with severe or behavioral disabilities. Academic preparation was often insufficient to ensure effective inclusion.

6.5. Fifth Study: Celina Luísa Raimundo Martins (Portugal – Porto Region)
Title: Inclusive Physical Education: Teachers' Attitudes

-Objective: To describe the inclusive attitudes of 53 public-school teachers toward inclusive physical education, using a mixed-methods approach.

-Main Findings: Attitude variation was illustrated in the sense that some teachers were theoretically favorable, but practical implementation varied with the level of professional and pedagogical backing.

6.6. Sixth Study: Fatima Hassan Abdelbaset Morjan, Sharifa Al-Hashimiyya, & Miead Al-Hamdaniyya (2020)
Title: School Sports Teachers' Attitudes toward the Inclusion of Persons with Disabilities in School Physical Education Classes in the Sultanate of Oman

-Objective: To examine school sports teachers' attitudes towards integrating individuals with disabilities into physical education lessons and to identify differences in attitudes based on gender and years of experience.

-Main Findings: Using a descriptive research design and a 30-item scale to measure academic, psychological, and social constructs, 54 female and male school sport teachers were selected from the South Al Batinah Governorate, Oman. Expert judgment ensured content validity of the scale, and Cronbach's alpha was 0.88. The results showed teachers' attitudes were generally neutral, no statistically significant differences by gender but with statistically significant differences by years of experience. The study recommended there be curricula development to more effectively meet the needs and abilities of students with disabilities, and provision of instructional materials and equipment for facilitating inclusion in physical education.

7. Key Terms of the Study:

7.1. Teachers' Attitudes:

Attitudes are acquired psychological tendencies that reflect the approval or disapproval of a specific idea, conduct, or group by an individual and influence one's response to them. In this study, they are the overall positive or negative attitudes shown by physical education teachers at different levels of education .towards students with special needs taking part in school sports competitions, as reflected in their response to the measuring instrument adopted.

Psychosocial attitudes are also one of the most powerful determinants of a teacher's educational behavior. They have been described as "a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related.".

Here, the attitudes of physical education teachers toward students with special needs are a system of knowledge, position, and professional competences that are acquired in training and practice. According to research, evidence is found that positive attitudes render the inclusion process easier, whereas negative ones act as behavioral and psychological barriers, reducing the chances for this group to take part (Allport, 1945, p. 45).

Cross-sectional studies have examined the explicit and implicit pre-service and/or in-service teachers' attitudes towards weight status (Lynagh, Cliff, & Morgan, 2015), inclusive education (i.e., special needs children) (Lautenbach & Antoniewicz, 2018), and gender in science, technology, engineering, and mathematics (STEM) (de Kraker-Pauw, van Wesel, Verwijmeren, Denessen, & Krabbendam, 2016). As interest has grown in reducing implicit bias, a recent systematic review illustrated that the majority of concrete interventions tried to reduce implicit prejudice and stereotypes had little effect. Surprisingly, just one of the 47 studies included explored gender bias (male/leader vs. female/supporter) (FitzGerald, Martin, Berner, & Hurst, 2019).

7.2. Students with Special Needs:

They are individuals with special needs unlike the general public, physical, sensory, intellectual, or psychological.

It is the individuals afflicted with permanent or transient handicaps that hinder them from being active participants in society without help or remuneration.

Operational, they are pupils in Algerian schools afflicted with motor, sensory, intellectual disability, or learning disorders, whose participation in sporting activities is the interest of this study.

The phrase "students with special needs" arose as part of a movement away from the conceptualization of disability, and even more with the institutionalization of the social model of disability, an understanding of disability as not existing within the individual but in environmental and social barriers that disable their full engagement.

Such a perspective was adopted by the Convention on the Rights of Persons with Disabilities (CRPD, 2006), upholding inclusive education ideals. On that account, children with special needs are now viewed

to be capable of learning and interacting when they are provided with conducive conditions—much more in sports, which is a good means of communication and interaction (United Nations, 2006, p. 12).

7.3. School Sports Activities:

These are physical and learning practices available within the school setting as part of physical education education or after school. They include all the activities whereby students with special needs participate alongside other children.

Block (2016, p. 88) finds that physical exercise is a suitable vehicle for the integration of students with special needs by adjusting exercises and altering methods based on their ability. Hodge, Lieberman, & Murata (2018, p. 134) note that modification of physical activity assists in integration into the school environment and stimulating their social and psychological skills.

Operationally, the term refers to all physical activities organized or conducted by the physical education teacher during school hours where students with special needs are supposed to be involved alongside their non-disabled counterparts.

School sports activities are considered to be a part of comprehensive education that contributes to developing students' physical, psychological, and social abilities. Theories of physical education,motor learning provide evidence of physical education as an effective tool for adapting students with special needs by exercising flexibility and diversification of instruction techniques based on their ability.

Additionally, these activities help children build self-esteem as well as a sense of belonging to the school community.

7.4. Stereotype:

Simplifying assumptions based on incorrect generalizations that reduce people to some characteristics, either social or individual. A stereotype is "a set of ready-made perceptions or judgments that an individual or society holds toward a particular group, often based on inaccurate information or limited experiences."

Stereotypes against people with special needs are among the strongest barriers to their inclusion in school systems. Within school, stereotypes may manifest where some instructors have the belief that handicapped students do not have the ability to join physical education classes—leading to their exclusion or to being treated with a minimized viewpoint that does not equate to what they can do (Lippmann, 1922, p. 61).

Operationally, it refers to the negative or limited perceptions by certain physical education teachers of the ability of students with special needs to participate in sports activities.

-7.5. Pedagogical Practice:

This is the application of knowledge of educational principles into practice in the school environment. In

this study, it means the reality of the physical education teacher's behavior in actually facilitating students with special needs' access to sport activities and not just perceptions or.

Freire (2000, p. 72) states that pedagogic practice is more than rote teaching but is rather a liberating, critical practice that allows learners to discover themselves and become a part of the world around them.Operatively speaking, it encompasses the teacher's practices, behavior, and strategies that are used to accomplish specific learning objectives. Consistent with Freire's theory, pedagogic practice can't be reduced to the transmission of knowledge but must enable students to engage critically and meaningfully.

Thus, the shift of teachers' attitudes from merely good or bad thinking to real inclusive actions is key to the success of inclusive education initiatives—particularly in physical education, which is characterized by face-to-face interaction and active participation on the part of students.

8. Study Procedures:

8.1. Research Method:

This study adopted the descriptive-analytical method, as it is the most suitable for analyzing the attitudes of physical education teachers toward the participation of students with special needs in school sports activities, and for identifying the extent to which these attitudes have been transformed into actual pedagogical practices. This method also enables the collection of quantitative field data and their statistical analysis to derive accurate scientific conclusions.

8.2. Study Delimitations:

8.2.1. Temporal Delimitation:

The study was conducted during the 2023/2024 academic year, with data collection taking place during the first and second terms of the school year.

8.2.2. Spatial Delimitation:

The research was carried out in educational institutions located in the provinces of Algiers and Aïn Defla, covering the three educational levels:

- **Primary level:** Schools in Bab El Oued, Casbah, and Aïn Defla.
- **Middle school level:** Middle schools in Bab El Oued, Casbah, and Aïn Defla.
- **Secondary level:** High schools in El Harrach, Bab El Oued, and Aïn Defla.

8.2.3. Human Delimitation:

The study population consisted of all physical education teachers working in the aforementioned institutions during the 2023/2024 academic year. A full census was conducted, meaning the sample equaled the original population.

9. Study Population and Sample:

9.1. Original Population:

All physical education teachers across the three educational levels (primary, middle, and secondary).

9.2. Sample:

-10 teachers from the primary level: Om Habiba School (Bab El Oued), Al-Farabi School (Bab El Oued), Malek Bennabi School (Casbah), African Unity School (Bab El Oued), Souaadi School (Aïn Defla), and Al-Ibrahimi School (Aïn Defla).

-10 teachers from the middle school level: Malek Bennabi Middle School (Casbah), Assomam Middle School (Bab El Oued), Massinissa Middle School (Bab El Oued), Al-Jadida Middle School (Aïn Defla), and Massoudi Middle School (Aïn Defla).

-12 teachers from the secondary level: Ahmed El-Birouni High School (El Harrach), Said Etouani High School (Bab El Oued), Emir Abdelkader High School (Bab El Oued), and Hachama Ben Aouda High School (Aïn Defla).

The sample is equivalent to the total study population, as all members of the statistical population were surveyed.

9.1.2. Sample Characteristics:

Table (1): Distribution of the total sample according to gender, educational level, and years of experience.

Gender	Educational Level	Less than 5 Years	5–10 Years	More than 10 Years	Subtotal	Pilot Sample	Main Research Sample
Male	Primary	2	2	1	5	2	3
	Middle	2	2	1	5	2	3
	Secondary	2	2	2	6	2	4
Subtotal (Males)	—	6	6	4	16	6	10
Female	Primary	2	2	1	5	2	3
	Middle	2	2	1	5	2	3
	Secondary	2	2	2	6	2	4
Subtotal (Females)	—	6	6	4	16	4	12
Total	—	12	12	8	32	10	22

Source: Output from statistical package.

Analysis of Sample Characteristics:

The total study sample consisted of 32 participants, all of whom were physical education teachers, evenly distributed by gender (16 males and 16 females), representing various educational levels (primary, middle, secondary) and ranges of professional experience.

9.2.2.1. Pilot Sample:
The pilot sample comprised 10 participants (6 males and 4 females), representing **31.25%** of the total sample.

-Gender: Males constituted the majority (60%), while females accounted for 40%.

-Educational Level: Each educational stage (primary, middle, secondary) was represented in relatively

equal proportions to ensure coverage across all levels.

-Years of Experience: The pilot sample included teachers from all experience categories (less than 5 years, 5–10 years, more than 10 years), allowing the assessment of the clarity and applicability of the measurement tool across diverse profiles.

-Purpose: This sample was used to test the construct validity and reliability of the study instrument, as well as to verify the clarity of item wording and feasibility of administration.

9.2.2.2. Main Research Sample:
The main research sample consisted of 22 participants (10 males and 12 females), representing **68.75%** of the total sample.

-Gender: Females formed the majority (54.54%), compared to 45.45% males.

-Educational Level: All three educational levels were represented, with a slight predominance of secondary-level teachers.

-Years of Experience: Participants' professional experience varied, enabling the exploration of its influence on their attitudes and teaching practices.

-Purpose: This sample was used to address the study's comparative and correlational hypotheses.

Overall, the relatively balanced distribution by gender, educational stage, and years of experience within both the total sample and the pilot sample strengthens the comprehensiveness of the results and supports their generalizability within the limits of the study population.

10.Study Instruments:

Given the analytical quantitative nature of this study and its aim to measure attitudes, awareness, and practice, the most suitable data collection tool is:

10.1 Questionnaire:
The study instrument is a self-administered questionnaire addressed to physical education teachers across the three educational levels (primary – middle – secondary). Its purpose is to measure:
(a) Awareness of concepts related to inclusion and inclusive physical education;

(b) Teachers' attitudes toward the participation of students with special needs;
(c) The extent to which these attitudes are reflected in actual teaching practices.

Additionally, the questionnaire collects demographic variables that may explain differences in results (educational level, years of experience, type of training).
The instrument contains a total of **24 items**, distributed across three dimensions directly aligned with the partial hypotheses. The overall score is used to test the general hypothesis.

10.1.1 Instrument Description:
The questionnaire was designed specifically for physical education teachers at the three educational levels (primary – middle – secondary) to measure their attitudes toward the participation of students with special needs in school sports activities, in line with the four predefined hypotheses.

The instrument is organized into **three main dimensions**, each corresponding to one of the partial hypotheses, while the general hypothesis is addressed through the combined results of these dimensions.

10.1.1.1 Demographic Data Section:
Content: Gender, age (optional categories), educational level, years of experience (<5, 5–10, >10), type of training (general initial training/specialized training in adapted physical education/short courses/no training), workplace (school/governorate).

10.1.1.2 Dimension One: Linked to the first partial hypothesis — "Awareness of concepts of inclusion and inclusive physical education"

-Number of items: 7.

-Content & Purpose: Measures the theoretical knowledge and essential professional skills of the teacher regarding concepts of inclusion, legal framework, pedagogical adaptation strategies, and possible forms of support within physical education classes.

-Response Scale: 5-point Likert scale (1 = Strongly Disagree … 5 = Strongly Agree).

-Scoring Method: Mean score of the 7 items = awareness score for each participant.

10.1.1.3 Dimension Two: Linked to the second partial hypothesis — "Attitudes toward the inclusion of students with special needs and the effect of demographic variables"

- **Number of items:** 9.
- **Content & Purpose:** Measures teachers' attitudes (positive/negative/neutral) toward the participation of students with special needs in PE classes. Items address stereotypical perceptions, expectations of student performance, and teachers' responses to specific situations. Demographic variables (educational level, years of experience, type of training) are also collected to explain potential differences.
- **Response Scale:** 5-point Likert scale; negative items were reverse-coded before analysis.
- **Scoring Method:** Mean score of the 9 items = overall attitude score for each participant.

10.1.1.4. Dimension Three: Linked to the third partial hypothesis — *"Translation of attitudes into actual teaching practices"*

-Number of items: 8.

-Content & Purpose: Assesses teachers' actual classroom behaviors and the extent to which they adopt inclusive practices (content adaptation, student participation, collaboration with specialists, monitoring, and evaluation). This dimension turns intentions/attitudes into observable behavioral indicators — suitable for analyzing the relationship with the attitudes dimension.

-Response Scale: 5-point Likert scale (1 = Very Rarely — 5 = Always).

- **Scoring Method:** Mean score of the 8 items = actual practice score for each participant.

10.2 Questionnaire Scoring and Adopted Scale:

After collecting the questionnaires and ensuring all items were answered, responses were coded according to the 5-point Likert scale, with values assigned from (1) to (5) based on the degree of agreement or frequency, as follows:

- 5 = Strongly Agree / Always
- 4 = Agree / Often
- 3 = Neutral / Sometimes
- 2 = Disagree / Rarely
- 1 = Strongly Disagree / Never

For negative items, reverse coding was applied to ensure that higher scores consistently reflected a higher level of the measured construct.

10.3. The Mean and Standard Deviation for Each Dimension, Along with the Appropriate Statistical Tests:

- Difference Tests: One-Way ANOVA or Kruskal–Wallis were applied to examine the variance hypotheses (H1, H2).
- Correlation Tests: Pearson's *r* or Spearman's rank-order correlation were used to test the relational hypotheses (H3) and the general hypothesis**.**

11. Construct Validity of the Dimensions:

Corrected correlation coefficients were calculated between each dimension and the total score of the questionnaire (excluding the score of the respective dimension when computing the total score). The results were as follows:

Table (2). Corrected Correlation Coefficients and Reliability Coefficients (Cronbach's Alpha) for the Questionnaire Dimensions

Dimension	Corrected Correlation Coefficient with the Total Score	Sig.
Awareness of Sports Inclusion Concepts and Inclusive Physical Education	0.78	0.006
Attitudes toward the Participation of Students with Special Needs	0.81	0.004
Inclusive Educational Practices	0.84	0.003

Source: Outputs of the Statistical Package for the Social Sciences

We can observe from the construct validity table that all the corrected correlation coefficients between the three dimensions and the total questionnaire score ranged from 0.78 to 0.84. These are high values indeed and indicate a very strong correlation between the dimensions and the scale as a whole.

-Inclusive Educational Practices dimension showed the highest correlation (0.84), which means that this dimension accounts for a high percentage of the variance of the total questionnaire score and replicates the overall shape of the instrument clearly.

-The Attitudes toward the Participation of Individuals with Special Needs dimension was highest ranked in terms of correlation strength (0.81), which is indicative that attitudes are a central and influential factor for the overall scale.

-The Concepts of Sports Inclusion and Inclusive Physical Education awareness factor had a sufficient correlation (0.78), which indicated that it played a significant role in the construct validity of the instrument.

-All the values were statistically significant at the 0.01 level, thereby increasing the reliability of the findings and affirming the validity of the instrument in capturing the phenomenon in question.

Based on these findings, it can be asserted that the questionnaire possesses a high degree of construct validity, as the three dimensions are inextricably connected to the overall scale and reflect the concept structure to be measured.

12. Reliability (Cronbach's Alpha Coefficient):

Table (3) Cronbach's Alpha Reliability Coefficients for the Questionnaire Dimensions as a Whole

Dimension	Number of Items	Cronbach's Alpha
Awareness	7	0.85
Attitudes	8	0.87
Practices	9	0.89
Entire Questionnaire	24	0.93

Source: Output from the statistical software package

Cronbach's alpha reliability testing revealed that both the three dimensions of the questionnaire and the total score all recorded values well above the minimum acceptable level for educational and psychological studies (0.70), which represented a high level of internal consistency within each dimension of the items.

-The dimension Inclusive Educational Practices received the highest reliability coefficient (0.89), indicating that its items are highly homogeneous and represent the measurement of the same conceptual dimension.

-The Attitudes toward the Participation of People with Special Needs dimension ranked second (0.87) with strong inter-item correlation and consistency in measuring attitudes.

-The Awareness dimension of Sports Inclusion and Inclusive Physical Education Concepts demonstrated good reliability (0.85), which means its items are measuring the concept they are supposed to measure reliably.

-At the entire questionnaire level, the Cronbach's alpha coefficient was 0.93, a very high value indicating very good internal consistency for the instrument as a whole, which is suitable for use in the main study.

It is possible to determine from these results that the instrument has high reliability, which adds credibility to the data collected when applied to the main sample.**13.Instrument Normality Test (Shapiro–Wilk):** Suitable for Small Samples ($n \leq 50$)

Table (4) Results of the Shapiro–Wilk Test for the Normality of Attitudes toward Inclusion Scores across Educational Levels

Educational Level	Statistic (W)	Sig. (p)
Primary	0.957	0.742
Middle	0.971	0.865
Secondary	0.948	0.615

Source: Output from the statistical software package

The results of the Shapiro–Wilk test indicate that all Sig. values are greater than 0.05, which means that the distribution of attitude scores for the three levels of education approximates a normal distribution. It is thus alright to proceed with the use of parametric tests.

14.Levene's Test for Homogeneity of Variances:

Table (5). Results of Levene's Test for Homogeneity of Variances across Groups by Educational Level

Levene Statistic	df1	df2	Sig. (p)
0.841	2	19	0.446

Source: Output from the statistical package

Levene's test indicates that the value of Sig. = 0.446 is greater than the significance level (0.05) selected, indicating that variances between the groups (levels of education) are not statistically different. Therefore,

it can be concluded that the variances are homogeneous and meet one of the assumptions necessary in the use of parametric tests.

Since both the assumptions of normality and equal variances have been fulfilled, the application of parametric tests would be deemed most appropriate in this study given the variables of each hypothesis.

15. Presentation, Analysis, and Discussion of the Results

15.1. General Hypothesis:

There is a statistically significant correlation among physical education teachers of different levels of education and their attitudes towards integrating students with special needs in school sport competitions and the level to which these attitudes are implemented in educational reality.

Table (6): Pearson correlation coefficient between Physical Education teachers' attitudes toward the inclusion of students with special needs and the extent to which these attitudes are reflected in educational practices (n = 22)

Variables	Correlation Coefficient (r)	Sig. (p)	Level of Significance
Attitudes toward the inclusion of students with special needs ↔ Inclusive educational practices	**0.714**	**0.000**	**0.01**

Source: Output from the statistical package

The results of this research found a strong positive correlation between physical education teachers' attitudes towards the inclusion of students with special needs and the extent to which these attitudes are achieved in real classroom practices. This confirms that positive attitudes towards inclusion directly affect the extent of inclusive classroom practices.

This finding is consistent with the study of Antala et al. (2022), which determined that direct experience with disabled pupils and attending adaptive physical education lessons were positively associated with teachers' self-efficacy and attitudes, reflecting the quality of their practical behavior. It was also supported

by the study of Beyazoğlu and Özbek (2024), which found that positive attitudes of teachers who were duly trained were cascaded to classroom practice in spite of institutional challenges.

These results also align with a study from Saudi Arabia (2023) that demonstrated that teachers with positive attitudes were more capable of implementing inclusive activities that were suitable for all students' capacities, particularly those who had gone through specialized training courses. Furthermore, a systematic

review (2022) supported that positive attitudes toward inclusion are a strong predictor of quality educational practice, especially when dealing with students with mild and moderate disabilities.

Similarly, Martins (2021) established in Portugal that teachers with positive attitudes were more capable of adapting activities to meet learners' needs, which corroborates our research. Finally, Marjan et al.'s (2020) research indicated that Omani teachers' positive attitudes were a deciding factor in the successful application of inclusion in school physical education lessons, in the presence of material resources and facilities-based problems.

It is from this that the evidence from this study supports the literature that emphasizes the strong link between positive teacher attitudes and their ability to provide inclusion in practice, provoking a demand for investment in training programs that address attitudes and support inclusive practice.

15.2. First Sub-Hypothesis: There are statistically significant differences in the level of physical education teachers' awareness of the concepts of sports inclusion and inclusive physical education according to the educational level.

Table (7): Results of the ANOVA Test for Differences in the Level of Physical Education Teachers' Awareness of Sports Inclusion Concepts According to the Educational Level

Source	Sum of Squares	df	Mean Square	F	Sig. (p)
Between Groups	4.382	2	2.191	5.214	0.014
Within Groups	7.976	19	0.420		
Total	12.358	21			

Source: Outputs of the Statistical Package

Because Sig. = 0.014 < 0.05, there are statistical differences in the degree of awareness of physical education teachers of the notions of sports inclusion and inclusive physical education at different levels of education. Hence, the null hypothesis is rejected and the alternative hypothesis is accepted.

The results show that the level of education is an important determinant of the level of teachers' awareness of ideas about inclusion because secondary school teachers tend to display higher levels of awareness compared to their middle and primary school counterparts.

This is due to the fact that secondary school teachers are likely to receive more advanced academic training and teach more developed curricula, where they must possess a better grasp of principles of inclusion.

These findings support the study of Beyazoğlu and Özbek (2024), which revealed that the awareness of physical education teachers concerning inclusion concepts differs by level of education, with higher-level teachers being more likely to possess deeper knowledge due to exposure to more complex teaching environments. They are also supported by the results of a Saudi Arabian survey (2023), which showed that the educational level has an important role in inclusive practice, with secondary school teachers achieving a better result than others in awareness and implementation.

Moreover, the evidence aligns with the systematic review (2022), that centered on emphasizing the fact that resource accessibility and curriculum complexity in certain levels, for instance, secondary education, provide teachers with greater opportunities to apply diverse inclusion strategies. Similarly, Martins (2021)

in Portugal found that secondary school teachers were more able to adapt activities to the needs of learners compared to teachers in other levels.

Finally, the Merjan et al. (2020) research indicated that heightened responsiveness to ideas of inclusion has typically been correlated with the nature of the learning environment in that some stages require higher levels of adjustment and preparation for good implementation of inclusion—a finding corroborated by the findings of this study.

. 15.3. The Second Sub-Hypothesis:There are statistically significant differences in the attitudes of physical education teachers toward the participation of students with special needs in sports activities according to the educational stage, years of experience, and type of training.

Table (8): Results of ANOVA Test for Differences in Physical Education Teachers' Attitudes Toward the Participation of Students with Special Needs According to Educational Stage and Years of Experience

	Source of Variation	Sum of Squares (SS)	df	Mean Squares (MS)	F Value	Sig. (p)	Statistical Significance
Educational Stage	Between Groups	3.452	2	1.726	4.512	0.024	Significant at 0.05
	Within Groups	7.270	19	0.383			
	Total	10.722	21				
Years of Experience	Between Groups	4.105	2	2.052	5.326	0.014	Significant at 0.05
	Within Groups	7.321	19	0.385			
	Total	11.426	21				
Type of Training	Between Groups	5.018	2	2.509	6.882	0.006	Significant at 0.01
	Within Groups	6.919	19	0.364			
	Total	11.937	21				

Source: Outputs of the Statistical Package

The results indicate that:

1. **Educational Level:**
   - The F value reached 4.512 with a significance of $p = 0.024 < 0.05$, indicating the presence of statistically significant attitude variation by the level of education.
   - This would mean that the educational level predetermines teachers' attitudes, either positive or negative, toward including students with special needs. Based on field observations, this may be due to the nature of curricula and activities offered, since the middle school level

has less constraint in class schedules compared to the primary and secondary levels, and thus greater space for inclusion.

2. **Years of Experience:**

-The results revealed that the F value was 5.326 and $p = 0.014 < 0.05$, which established that statistically significant differences existed in attitudes by years of experience.

-Field observations note that novice teachers (less than 5 years' experience) are more receptive to inclusion, as they stand a better chance of being exposed to fresh teaching styles in training at university

than more experienced teachers who may have been conditioned by habit or not exposed to continuous professional development.

3. **Type of Training:**

-This variable recorded the largest differences, $F = 6.882$ at $p = 0.006 < 0.01$, and it indicates that teachers' attitudes are significantly affected by the type of training (specialized training in inclusive physical education, general training, or none).

-It is clear that instructors who have been specially trained for inclusive physical education or courses of professional development exhibit more favorable attitudes than their peers who are not so trained.

The outcome in the impact of educational level on the attitudes of teachers supports Martins' (2021) research that revealed that the educational stage has a key role to play in shaping the responsiveness of teachers towards the implementation of inclusive practices, with teachers working at better-resourced phases being more adaptable towards applying inclusion. Also, a systematic review (2022) highlighted that educational level is related to the ability to adapt activities in a way to meet the requirements of all learners.

In terms of years of experience, evidence from a study conducted in Saudi Arabia (2023) substantiated this trend, demonstrating that less experienced teachers have more positive attitudes towards inclusion since they benefit from recent university and training courses. Antala et al. (2022) also discovered that experience with disabled pupils enhances teachers' self-efficacy and their attitude positively.

Regarding training type, Beyazoğlu and Özbek (2024) confirmed that teachers who had taken part in specialist training in inclusive physical education had more positive attitudes and greater ability to implement inclusion than non-specialists. Marjan et al. (2020) also emphasized that providing specialist training and supportive facilities is a very crucial factor in increasing teachers' attitudes and building up inclusive methods.

In conclusion, the findings of this research agree with previous studies that established educational level, work experience, and training type as predictors of physical education teachers' attitudes towards including students with special needs.

15.4. Third Sub-Hypothesis:There is a statistically significant relationship between physical education teachers' attitudes toward students with special needs and the extent of their implementation of inclusive pedagogical practices in sports activities.

Table (9). Pearson Correlation Coefficient between Attitudes toward Individuals with Special Needs and Inclusive Educational Practices

Variables under Correlation	Correlation Coefficient (r)	Sig. (p)	Significance Level
Attitudes ↔ Practices	0.714	0.000	Significant at 0.01

Source: Outputs of the Statistical Package

The results indicated that the attitudes of physical education teachers toward students with special needs were positively associated with the level of implementation of inclusive education practices (r = 0.714) with high statistical significance at 0.01.

This means that physical educators with positive attitudes towards inclusion will adopt inclusive teaching practices in class, such as modifying activities, involving all students, and working with specialists.

This is consistent with Antala et al. (2022), which confirmed that teachers' positive attitudes towards inclusion of disabled students are positively related to the quality of their teaching practice provided adequate training exists. It is also consistent with Beyazoğlu and Özbek (2024), which revealed that teachers' positive attitudes were converted into inclusive teaching strategies activation even in the presence of institutional barriers.

Similarly, a Saudi Arabian research study (2023) identified that positive attitude teachers were more capable of modifying sporting activities to suit all the students and thereby promote the quality of

pedagogical practices. A systematic review (2022) also verified that effective field practices are a direct result of the attitudes and beliefs of teachers towards inclusion.

Moreover, Martins (2021) stated that the implementation of inclusion in physical education lessons largely depends on teachers' attitudes and inclinations towards inclusive approaches. Likewise, the study by Merjan et al. (2020) found that teachers' positive attitudes were among the determining factors of inclusion in school sports classes.

Therefore, these findings confirm the conviction that improving teachers' attitudes towards inclusion is an essential point of entry for enhancing the quality of inclusive educational practice. This underlines the

necessity to invest in training workshops focusing on positive attitudes and dismantling stereotypes about individuals with special needs.**General 17.Conclusion:**

The findings of the study revealed that the physical education teachers at different educational stages have varying degrees of awareness of the concepts of sports inclusion and inclusive physical education. The most aware were the middle school teachers, followed by primary school and then secondary school teachers.

This is an indication of the influence of the educational stage and its flexibility to include .inclusion. The results also indicated that there were significant differences in attitudes toward inclusive education of students with special needs based on the level of educational stage, teaching experience years, and type of training, with specialized training being most influential in fostering positive attitudes.

Furthermore, the results displayed a noteworthy correlation between positive attitudes toward the inclusion of students with special needs and the use of inclusive educational practices. This confirms that teachers' positive attitudes are not merely perceived concepts but are indeed reflected in their pedagogy in the classroom. Therefore, investment in raising teachers' awareness, providing specialist training, and developing caring school environments is one of the most significant inputs to render inclusion strategies in physical education effective and transform them from good intentions to concrete and effective practice.

From the results, in addition to the comparison with previous literature, it can be concluded that the attitudes of physical education teachers towards the inclusion of students with special needs into sports activities within schools are clearly influenced by several factors, most notably the type of training, experience, and stage of education. The results showed that specialized training is the most influential factor in the formation of positive attitudes, followed by experience. This corroborates the findings of Sherrill (2017) and Smith & Green (2018), which emphasized that targeted training in inclusive physical education directly affects classroom practice.

The study also noted that the strong relationship between positive attitudes and actual pedagogical practice indicates that the adoption of an inclusion philosophy does not stop at supportive attitudes but also entails enacting them in the classroom. To this end, the value of including topics of diversity and inclusion in pre-service and in-service teacher education programs becomes evident, where they are able to learn pedagogical adaptation skills and the use of required teaching strategies for students with diverse abilities.

In addition, the constancy of these results suggests that changing practice requires initially altering teachers' mental representations of the abilities of children with special needs. This implies that educational policies aimed at inclusion must pursue a comprehensive approach that incorporates practical experience, theory training, and institutional support for creating an inclusive and sustainable learning environment.

Accordingly, this research is a step towards clarifying the path the Algerian school system needs to follow in terms of effective inclusion in physical education through investment in human capital for teachers and promoting a culture of acceptance and mutual respect for all students so that physical activity becomes a genuine tool for social integration and equal opportunities.

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