

The Effectiveness of Inclusive Education for Individuals with Disabilities in Developing Motor and Cognitive Skills, Teachers' Perspectives in private Schools in Al-Jamea District

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Abstract

This study aimed to explore the effectiveness of inclusive learning in developing the abilities of individuals with disabilities from the perspective of teachers in the Al-Jam'a district. The researchers used a descriptive approach that suited the nature of the study. A specific questionnaire was designed for this purpose, consisting of three dimensions: school administration (12 items), social dimension (9 items), and teacher competence (14 items). After ensuring the validity and reliability of the instrument, data were collected from a sample of 60 teachers in private schools in the Al-Jam'a district in Amman, Jordan.

The researchers utilized statistical software for social sciences, employing various statistical methods such as Cronbach's alpha, mean, t-test, F-test, and standard deviation. The study's results revealed that the effectiveness of inclusive learning for individuals with disabilities in developing motor and cognitive skills, from the perspective of teachers in the Al-Jam'a district, was moderate. Additionally, there were no statistically significant differences in means between male and female teachers regarding the integration of students with disabilities in developing motor and cognitive skills, based on variables of experience and gender.

One of the notable conclusions reached by the researchers was that teachers in the Al-Jam'a district exhibited caution and reservation towards the concept of inclusion. This caution was evident through the moderate level of agreement. The researchers recommend facilitating transparent and easy access to information related to inclusive learning by the Ministry of Education.

Keywords: Inclusive learning, individuals with disabilities, teachers.

1. Introduction

Individuals with disabilities are an integral part of our society, and ensuring their educational rights is a shared responsibility that falls on everyone, starting from the Ministry of Education in the Kingdom. Inclusive learning for students with disabilities, alongside their non-disabled peers in schools, is one of the crucial issues facing modern education. The positive discrimination and inclusion of students with disabilities and the provision of an educational environment characterized by inclusivity and integration are essential for achieving equal educational opportunities.

Highlighting and considering their integration in schools have yielded effective results, despite the difficulties and challenges faced by all parties involved in successful inclusive learning. We believe that students with disabilities are individuals and members of society with untapped, achievable, and developable abilities. Under this philosophy, the teaching staff bears the responsibility of meeting the needs of these students by recognizing, developing, and nurturing their talents. It requires a strong partnership between the school system and the community (Hussein, 2021).

"Inclusive education" is a pressing demand for parents of students with disabilities. It aims to create an inclusive educational environment to integrate their children into government schools and provide facilitating arrangements for them. It is the right of individuals with disabilities to learn under the same conditions as non-disabled students. Education is a right for all, regardless of age, gender, nationality, social, economic, cultural, or physical status. The school is open to everyone. Based on the Jordanian Constitution, Ministry of Education Law No. 3 of 1994, and the Higher Council for the Rights of Persons with Disabilities Law No. 29 of 2017, the task of providing education is entrusted to the Ministry of Education, which deals with this matter with dedication and responsibility, prioritizing the achievements related to this valuable group of our students and providing various excellent services through the implementation of "inclusion" to offer opportunities for disabled students to engage in both regular and non-regular education systems. This serves as an affirmation of the principle of equal opportunities. In general, inclusion aims to address the specific educational needs of students in this category within the framework of regular schools, utilizing educational methods, curricula, and resources provided by specialized educational institutions in addition to the teaching staff in public schools.

Therefore, we recognize that the ministry continually emphasizes that it provides all its educational services to all students with disabilities who are capable of learning. The ministry will spare no effort in expanding inclusion programs as part of its commitment to meeting the community's needs, providing educational services, and offering equal opportunities for everyone within its plan and educational philosophy to achieve educational goals. It formulates its policies within the framework defined by the kingdom in collaboration with public and private institutions and entities.

2. Objectives

This study aimed to identify:

1. The effectiveness of inclusive education for people with disabilities in developing motor and cognitive skills from the perspective of teachers in the University District.
2. The effectiveness of inclusive education for people with disabilities in developing motor and cognitive skills based on the variables of gender and experience, as perceived by teachers.

3. Methods

Study Method:

The descriptive method was used due to its suitability for the nature of the study.

Study Population:

The study population consists of all teachers working in private schools that adopt the inclusive learning program in the Al-Jamea District, Amman, Jordan.

Study Sample:

The study sample consisted of 60 male and female teachers from private schools that adopt the inclusive learning program in the Al-Jamea District.

4. Results

Discussion Results Presentation and Discussion

5. **The aim of this research was to determine the effectiveness of integrated education for students with disabilities in developing motor and cognitive skills in the University District, from the perspective of teachers. A sample of 60 teachers from schools in the University District was selected, and SPSS software version 23 was used for data analysis and result extraction. The following is a presentation of the results according to the research questions, which are three in total.**

Results of the First Research Question Analysis

To answer the question about the effectiveness of integrated education for students with disabilities in developing motor and cognitive skills in the University District from the perspective of teachers, means and standard deviations were used.

Table (3): Means of Integrated Education Axes for Students with Disabilities in Developing Motor and Cognitive Skills in the University District from the Perspective of Teachers, ranked in descending order according to the means (N=60).

Rank	Range	Standard Deviation	Mean	Integration Axes	Number
1	Moderate	0.74	3.56	Social Axis	2
2	Moderate	0.90	3.26	Teachers' Competencies Axis	3
3	Moderate	0.81	3.24	School Administration Axis	1
	Moderate	0.72	3.36	Total for Integration Axes	

The classification of the means values (1 - 2.33: Low, 2.34 - 3.67: Moderate, 3.68 - 5.00: High) indicates that Table (3) shows the means of integrated education axes for students with disabilities in developing motor and cognitive skills in the University District from the perspective of teachers, ranked in descending order according to the means. By reviewing the total mean of the integrated axes, it is found to be 3.36, indicating a moderate range according to the classification scale

used. It is also noticed that the Social Axis achieved the highest mean value among the descriptive means, with a value of 3.56, which is classified as a moderate range. On the other hand, the School Administration Axis achieved the lowest mean value among the means, with a value of 3.24, representing a moderate range.

This is logical from the researchers' point of view, as the teacher is part of the community, and the community is a key factor that affects education and the development of skills for individuals with disabilities, whether positively or negatively. This result can be interpreted to mean that social-related elements such as communication and social interaction may play an important role in improving and developing skills for students with disabilities.

As for the Teachers' Competencies and School Administration axes, this can be explained by the presence of challenges in implementing educational practices related to the development of motor and cognitive skills for students with disabilities in the field of integrated education. There may be a need to enhance teachers' competencies and provide effective support from school administration to achieve better improvement in this field.

1. Analysis of paragraphs related to school management axis.

Table (4) descending averages of paragraphs related to school management axis according to the arithmetic means (n=60)

Rank	Range	Standard deviation	Arithmetic mean	Paragraphs related to school management axis	Number
1	Average	1.02	3.48	The school focuses on positive interaction between staff and students with disabilities.	5
2	Average	1.00	3.47	The school management adopts a clear integration policy for cases that can be accepted within the approved integration program..	1
3	Average	0.87	3.42	The inclusive school develops developmental plans that indicate the school's integration needs.	3
4	Average	0.94	3.38	The inclusive school management identifies the requirements and needs of the integration program	2
5	Average	0.99	3.35	Availability of educational support services for the success of the integration process.	4
6	Average	1.17	3.33	The school management applies the success and failure criteria specific to students with disabilities, as followed by the Ministry of Education.	11
7	Average	1.19	3.25	Students with disabilities are assessed by specialists in various fields, and the diagnostic report is kept in the student's file.	8
8	Average	1.01	3.12	The school management uses various evaluation methods to develop inclusive services.	7
8	Average	1.14	3.12	The inclusive school provides awareness programs for students related to the integration program.	10
10	Average	1.19	3.07	The school management provides the necessary medical services for people with disabilities within the school.	12
11	Average	1.13	2.98	The school is equipped with appropriate devices and tools for the type of disability.	6
12	Average	1.07	2.93	The inclusive school provides programs to prepare teachers regarding the integration program.	9
	Average	0.81	3.24	Total score for the school management axis	

Classification of arithmetic mean values (1 - 2.33: Low, 2.34 - 3.67: Average, 3.68 - 5.00: High)

6. Table (4) shows the descending averages of paragraphs related to the school management axis according to the arithmetic means. By reviewing the arithmetic mean value of the total score for the school management axis, it is evident that the arithmetic mean value reached 3.24, which falls within the average range according to the classification scale used. It is also noted that paragraph number (5) which indicates "The school focuses on positive interaction between staff and students with disabilities" achieved the highest value among the arithmetic means, with a value of 3.48. This value is classified as an average range. On the other hand, paragraph number (9) which refers to "The inclusive school provides programs to prepare teachers regarding the integration program" achieved the lowest value

among the paragraph means, with a value of 2.93. This mean represents an average range, and the arithmetic means for the remaining paragraphs fluctuated between these two values. This result reflects the awareness of schools regarding the importance of positively integrating students with disabilities and their acceptance of this group among healthy students in schools. This can be explained by the fact that focusing on positive communication and good interaction between all staff members in the school and students with disabilities can have a positive impact on their skill development. However, at the same time, it is important to enhance the number of teachers in terms of inclusive learning, consider teachers' skills, refine them in the service of individuals with disabilities through training and developing their skills in the field of inclusive learning.

2. Analysis of social axis paragraphs.

Table (5) Descending order of average social axis paragraphs according to arithmetic means (n=60)

Rank	Range	Standard deviation	Arithmetic mean	Social axis paragraphs	Number
1	High	0.95	3.77	The process of integrating students with disabilities helps prepare them for productivity in society.	5
1	High	1.00	3.76	The integration process increases the awareness of healthy students to accept students with disabilities.	8
3	High	1.04	3.72	The integration of students with disabilities helps prepare them for independence in society.	4
4	High	1.11	3.68	Placing students with disabilities in separate schools has a negative impact on their social development.	6
5	High	1.11	3.68	The integration process enhances the social acceptance of healthy students' families due to the presence of students with disabilities in their schools.	9
6	Average	1.04	3.67	The integration process fosters positive communication methods between students with disabilities and their healthy peers.	3
7	Average	1.04	3.65	The integration of students with disabilities with healthy students in regular schools will enhance their ability to form healthy social relationships with others.	1
8	Average	1.01	3.63	The integration process makes students with disabilities feel socially equal to healthy students.	2
9	Average	1.16	2.52	The integration process will increase the social gap between students with disabilities and healthy students.	7
	Average	0.74	3.56	Total grade for the social axis	

Classification of arithmetic mean values (1-2.33: Low, 2.34-3.67: Average, 3.68-5.00: High)

Table (5) shows the descending order of average social axis paragraphs according to arithmetic means, along with the arithmetic mean values for the total grade of the social axis. The arithmetic mean value for the total grade of the social axis is 3.56, which falls within the average social range based on the classification scale used. It is noteworthy that paragraph number (5) which states, "The process of integrating students with disabilities helps prepare them for productivity in society," achieved the highest value among the arithmetic means with a score of 3.773. This value is classified as an average range. On the other hand, paragraph number (7) which states, "The integration process will increase the social gap between students with disabilities and healthy students," obtained the lowest value among the paragraph averages with a score of 2.52, representing a low range. The arithmetic mean values for the remaining paragraphs in the axis varied between these two arithmetic mean values.

The logical result regarding paragraph (5) ("The process of integrating students with disabilities helps prepare them for productivity in society") is accurate, as their productivity will not increase in society, and their ability to contribute will not be discovered unless they are first integrated into schools, which are essential elements of society. As for the result of paragraph (7) ("The integration process will increase the social gap between students with disabilities and healthy students"), it is a valid and acceptable outcome, as the opposite is true. The integration process actually reduces the social gap between students with disabilities and their healthy peers, strengthens social relationships between them, provides equal opportunities and incentives for development and growth, and creates an inclusive and equitable educational environment. This perception may be the result of previous experiences of teachers.

3. Analysis of the paragraphs of the teachers' competencies axis.

Table (6) shows the average scores of the paragraphs of teachers' competencies, ranked in descending order according to the mean scores (n=60).

Rank	Range	Standard Deviation	Mean Score	Paragraphs of Teachers' Competencies	Number
1	High	1.11	3.77	The teacher varies in using teaching methods to encourage students with disabilities to participate in the educational process.	14
2	Average	1.06	3.38	The teacher discusses the strengths of students with disabilities.	3
3	Average	1.02	3.37	The teacher notices the verbal and non-verbal messages transmitted and received from students with disabilities.	12
4	Average	1.13	3.33	The teacher has positive attitudes towards inclusive education.	13
5	Average	0.98	3.32	The teacher works on enhancing cooperation between him/her and the school administration to provide an inclusive school environment.	11
6	Average	1.15	3.30	The teacher discusses the development of students with disabilities in the school.	2
7	Average	1.10	3.27	The teacher discusses the weaknesses of students with disabilities.	4
8	Average	1.05	3.23	The teacher possesses the skills and sufficient knowledge to use different teaching methods, such as differentiated instruction, in the classroom.	6
9	Average	1.03	3.22	The teacher can assist families in dealing with children with disabilities in inclusive situations at school.	10
10	Average	1.15	3.20	The teacher possesses sufficient knowledge of the characteristics of students with disabilities.	7
11	Average	1.16	3.13	The teacher has diverse skills in dealing with problems related to students with disabilities inside the classrooms.	1
12	Average	1.11	3.12	The teacher possesses sufficient knowledge to implement individual plans for students with disabilities.	5
12	Average	1.03	3.12	The teacher keeps up with everything related to students with disabilities.	9
14	Average	1.14	2.92	the teacher familiar with the laws related to individuals with disabilities	8
	Average	0.90	3.26	Total Score for Teachers' Competencies	

Classification of mean scores (1-2.33: Low, 2.34-3.67: Average, 3.68-5.00: High)

Table (6) presents the mean scores of the paragraphs of the teachers' competencies axis, ranked in descending order according to the mean scores. By reviewing the arithmetic mean values of the total score for teachers' competencies, it shows that the mean score was 3.26, which falls within the average range according to the classification scale used. It is also observed that paragraph number (14), which indicates that "The teacher varies in using teaching methods to encourage students with disabilities to participate in the educational process," achieved the highest score among the mean scores with a value of 3.77. This score is classified as an average score. On the other hand, paragraph number (8), which refers to "The teacher is familiar with the laws related to disabilities," achieved the lowest score among the mean scores, with a value of 2.92. This mean represents an average range, while the mean scores of the other paragraphs ranged between these two values.

Regarding paragraph (14) ("The teacher varies in using teaching methods to encourage students with disabilities to participate in the educational process"), this is a positive and logical level for teachers to achieve the goal of their noble teaching profession. As for paragraph (8) ("The teacher is familiar with the laws related to disabilities"), it reflects the need for teachers to attend specialized courses and

Presentation of the results of the second question:

Are there statistically significant differences in integrated education for students with disabilities in developing motor and cognitive skills in the University District, as perceived by teachers, at a significance level of 0.05 attributed to the difference in the teacher's gender?

First: Differences according to the gender variable

Table (7) presents the results of selecting T to investigate the importance of differences in the means of integrated education for students with disabilities in developing motor and cognitive skills, based on the gender of the teacher (n=60).

Significance Level	t-value	Standard Deviation	Mean	Number	Gender	Integration Axes
0.527	0.637	0.68	3.38	12	Male	School Administration Axis
		0.84	3.21	48	Female	
0.597	0.532	0.67	3.67	12	Male	Social Axis
		0.76	3.54	48	Female	
0.377	0.891	0.81	3.47	12	Male	Teacher Competencies Axis
		0.93	3.21	48	Female	
0.432	0.791	0.64	3.50	12	Male	Overall Integration Axes
		0.74	3.32	48	Female	

Table (7) presents the results of selecting T to investigate the importance of differences in the means of integrated education for students with disabilities in developing motor and cognitive skills based on the gender of the teacher. By reviewing the calculated t-value, it is evident that it reached (0.527) for the School Administration Axis, (0.597) for the Social Axis, and (0.377) for the Teacher Competencies Axis. As for the calculated significance level value for the overall degree representing the integration axes, it reached (0.432). When comparing these calculated significance level values with the value (0.05), it becomes clear that all these values are greater than (0.05), indicating no significant differences in the means between male and female teachers regarding the integration of students with disabilities in developing motor and cognitive skills in the University District.

The absence of statistically significant differences between male and female teachers suggests the objectivity of the responses regarding education as a profession with shared goals and objectives, regardless of the teacher's gender.

Second: Differences according to the experience variable

To answer this question, one-way analysis of variance (ANOVA) was used, and the following table illustrates the results of this question:

Table (8) shows the means and standard deviations of the axes of integrated education for students with disabilities in developing motor and cognitive skills, distributed according to the teacher's experience (n=60).

Standard Deviation	Mean	Count	Experience	Axes/Roles
0.68	3.53	10	Less than 5 years	School Administration Axis
0.74	3.19	20	5 – 10 years	
0.88	3.18	30	More than 10 years	
0.54	4.04	10	Less than 5 years	Social Axis
0.84	3.44	20	5 – 10 years	
0.68	3.49	30	More than 10 years	
0.86	3.68	10	Less than 5 years	Teachers' Competence Axis
0.93	3.26	20	5 – 10 years	
0.89	3.12	30	More than 10 years	
0.62	3.75	10	Less than 5 years	Overall for Integration Axes
0.71	3.30	20	5 – 10 years	
0.74	3.26	30	More than 10 years	

Table (8) shows the mean values and standard deviations for the integration education axes of students with disabilities in developing motor and mental skills, distributed according to teachers' experience. Upon examining these values, it is evident that they vary with different levels of teachers' experience in each axis. To determine the significance of the differences, one-way ANOVA analysis was conducted, and the results are presented in the following table:

Table (9) One-Way ANOVA analysis results to investigate the significance of mean differences for the integration education axes of students with disabilities in developing motor and mental skills, distributed according to teachers' experience (n=60).

Significance Level	F-value	Mean Squares	Degrees of Freedom	Sum of Squaes	Source of Variation	Axes/Roles
.463	.780	.512	2	1.023	Experience	School Administration Axis
		.656	57	37.375	Error	
			59	38.399	Total	
.075	2.707	1.390	2	2.780	Experience	Social Axis
		.514	57	29.276	Error	
			59	32.057	Total	
.247	1.433	1.154	2	2.308	Experience	Teachers' Competence Axis
		.805	57	45.892	Error	
			59	48.201	Total	
.162	1.877	.949	2	1.898	Experience	Overall for Integration Axes
		.506	57	28.821	Error	
			59	30.719	Total	

Table (9) presents the results of the one-way ANOVA analysis to investigate the significance of mean differences for the integration education axes of students with disabilities in developing motor and mental skills, based on teachers' experience. By examining the calculated significance level (F-value), it is found to be 0.463 for the School Administration Axis, 0.075 for the Social Axis, 0.247 for the Teachers' Competence Axis, and 0.162 for the Overall Integration Axes. When comparing these calculated significance levels with the value of 0.05, it is evident that all these values are greater than 0.05, indicating no significant differences in the means between the perspectives of male and female teachers regarding the integration of students with disabilities in developing motor and mental skills. This implies that there is no statistically significant difference based on the variable of experience for teachers' perspectives and the activation of sports activities among teachers with different levels of experience.

The lack of statistically significant differences based on the variable of experience can be attributed to the fact that individuals with disabilities have become the focus of attention for all teachers regardless of their years of experience. Dealing with them is not only an educational matter, but also a humane one. Teachers, regardless of their experience, are characterized by their humanity and positive interaction with all students in general, and with this group of students.

References

1. The Ten-Year Strategy for Inclusive Education, Higher Council for the Rights of Persons with Disabilities, Hashemite Kingdom of Jordan.
2. Al-Bado, Amal Mohammed Abdullah (2020), The effectiveness of using assistive educational technology in inclusive education for students with special needs from the perspective of teachers. *International Journal of Research in Educational Sciences*, Issue 1: 304-273.
3. Al-Khateeb, Jamal (2012), *Education of Students with Special Needs in Regular Schools*. 3rd edition, Amman, Jordan: Wael Publishing House.
4. Al-Dakhil, Taghreed bint Abdullah (2013), The level of adaptive behavior of students with mild mental disabilities in inclusive education: A comparative study between inclusive and non-inclusive education. *Arab Studies in Education and Psychology*, Issue 33: 330-281.
5. Al-Sahli, Nawal Falah (2014), Self-perceived competence among teachers of autistic children in the Kingdom of Saudi Arabia in light of some variables. Unpublished Master's thesis, Yarmouk University, Irbid, Jordan.

6. Al-Sisi, Areej Ahmed (2017), Proposed organizational structure for applied education schools implementing the integration system in Al-Madinah Al-Munawarah. *Educational Journal*, 125(1): 299-341.
7. Al-Mutawa, Abdullah bin Saud (2015), The contribution of the individual educational program to the educational, psychological, and social values of students with special needs in inclusion programs for individuals with mental disabilities. *Al-Hikma Journal of Educational and Psychological Studies*, Issue 32: 42-8.
8. Al-Mahdi, Faten Mohamed Fouad (2020), The role of community-based rehabilitation in activating the policy of inclusion for persons with disabilities in regular schools in Egypt. *Educational and Psychological Studies*, Issue 109: 137-79.
9. Tabbal, Soha (2019), The reality of inclusive education programs in kindergartens in the Hashemite Kingdom of Jordan. Higher Council for the Rights of Persons.
10. Qandil, Nazem Nazmi Abdel-Mo'ti (2019), The predictive ability of self-perceived competence and locus of control in the competencies of inclusive education for teachers in regular schools in Amman. The University of Jordan, Amman, Jordan.
11. Amr, M. AL-Natour, M. AL-Abdallat, B. & Alkamra, H. (2016), Primary school teachers' knowledge, attitudes, and views on barriers to inclusion in Jordan. *International Journal of Special Education*, 13(1): 67-77.
12. Bukvic, Zlatko (2014), Teachers' competency for inclusive education. *The European Journal of Social & Behavioral Sciences*, 2(1): 149-156.
13. Healey, J. & Marder, K. (2006), Opening doors? Professional self-concept of pre-service teachers' in relation to the inclusion of students with disabilities. University of Western Sydney, SELF Research Center.
14. Kuyini, Ahmed Bawa. Yebouh, Kofi Asiama. Das, Ajay Kumar. Alhassan, Awal Mohammed & Mangope, Boitumelo (2016), Ghanaian teachers: Competencies perceived as impetrator inclusive education. *International Journal of Inclusive Education*, 20(10): 1009-1023.
15. Majoko, Tawanda (2019), Teacher Key Competencies for Inclusive Education: Tapping Pragmatic Realities