

## Teachers' Competencies of Dealing with Autistic Students in Regular Classrooms in Saudi Arabia

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**Abstract:** *In this study, the researcher investigated the educational competencies of teachers of students with Autism Spectrum Disorders, including the competencies they have, the competencies they lack, and which competencies still need to be enhanced. The population of the study consisted of teachers of regular classroom in the Riyadh district. The researcher developed and distributed a questionnaire to these teachers. The sample of the study consisted of 2,402 teachers in the public education elementary, middle, and high school. The results showed that the teachers' overall evaluation of their competencies was low, with a mean of 2.57 out of 5; this indicated that the teachers in general are not satisfied with their competencies in dealing with students with autism. The results also revealed that there are statistically significant differences among the teachers' responses based on the teacher's major. Moreover, the results revealed that there are no statistically significant differences among the teachers' responses due to the teacher's gender, qualification, major, and their teaching experience. The researcher presented recommendations of carrying out in-service training for teacher based on these findings*

**Key Words:** *autism spectrum disorder, special education, inclusive education, educational competencies, in-service training*

### Introduction

Inclusive education is an imperative educational strategy to provide a well-rounded education to students with disabilities. Students have the right to receive appropriate education together with their peers, based on their interests, needs, and abilities. Teacher pedagogical and educational competencies are continual, and such competencies require a continuing process of training. This training must address interactions with co-workers, students, parents, and others (Ljubetic & Kostovic, 2008). In order to work in inclusive classrooms, teachers must be aware of the specific characteristics of disabilities including autism spectrum disorders (ASD), as well as strategies and methods of teaching, in order to create a stimulating and learning-appropriate environment (Bukvic, 2014).

Bradshaw and Mundia (2006) reported that the variables of efficiency, work experience, beliefs about students and their education, and educational environment affect the process of inclusion. Teachers in public schools who have students with autism and other disabilities must be competent in many fields, especially regarding interpersonal skills (Hen & Tam, 2006).

Teachers in general education need to master the essential competencies needed for effective teaching (Mattar, El-Sherbini, & Ganayem, 2012). The lack of competencies of how to deal with student with autism or any other learning disabilities usually results in student failure (Vaughn, Linan, & Hickman, 2003).

Students with autism and other disabilities have the right to receive Free Appropriate Public Education (FAPE). Free public education means that educational services must be provided at public expense, under public supervision and direction, and without charge to parents of students with disabilities. Such procedures allow parents to examine school records, participate in meetings, and present complaints. According to FAPE, parents have the right to be informed of any plans that change the educational placement of their child, and they are entitled to an independent educational evaluation. This means that if the child is being educated in the general education classrooms of the public education system, the school structure and situation must be designed to enable the child to achieve passing marks and advance from grade to grade (Huefner, 2008).

### **Definition of an Appropriate Education**

An appropriate education refers to an education system which is designed to meet the unique educational needs of every student, including both academic needs and functional needs. An appropriate education provides an access to the general curriculum to meet the challenging expectations established for all children (Blau, 2007). Societies expect a lot from teachers. As the leaders of change, teachers are required to rethink their self and vocation, define long-term goals, and understand how students learn, think, feel, and act. Teachers should also have skills that promote students' self-esteem (Bukvic, 2014). A competence is defined as a "complex combination of different knowledge, skills, understanding, values, attitudes and desire which lead to effective, embodied human action in the world, in a particular domain" (Deakin, 2008, p. 31).

Bradshaw and Mundia (2006) identified the variables that have the most influence on the process of inclusion. These include efficiency, work experience, beliefs about students and their education, and educational environment. Teachers in regular schools do not have the same competencies. The competencies of these teachers are not equally developed, which could be a result of the nature of the training programs they graduated from (Bukvc, 2014). Baniabdelrahman (2004) highlighted the important role of short in-service training programs in developing the teacher's knowledge, competencies, and skills. The National Joint Committee on learning Disabilities (NJCID; 1998) argued that educators should be prepared to meet the needs of all students in regular classes, including students with autism.

The NJCID identified the needs of the learners with disabilities. In order to meet those needs, teachers need to have special competencies that consists of: (a) evaluation, (b) instruction, (c) social/emotional development, (d) classroom management, and (e) relationships with families

and colleagues. The NJCID recommended that teacher training programs should meet and train teachers on these competencies.

Lindsay, Proulx, Thompson, and Scott (2013) interviewed 13 educators who have experience in teaching children with autism, and found that teachers recommend an increase of resources, training, and support to enhance the education and inclusion of children with autism. Obaidat and Al-Dawaideh (2013) sought to identify the professional competences necessary for the teachers of children with autism according to the standards of the CEC. The study consisted of 92 teachers in the Saudi Arabian city of Jeddah. The authors classified 38 items into eight dimensions that measure the teachers' attitudes towards the competencies. The researchers reported that teachers view competencies similarly, but that females favor competency higher than males. Also, there were no significant differences in the level of education. However, there was a highly significant difference between the teachers' years of experience.

Alzaraa (2012) investigated the educational competence of autistic students' teachers by administering an educational competence checklist to 60 male and female teachers. Alzaraa found that gender is not a factor in indicating educational competence. Conversely, however, years of experience and educational level predicted teachers' educational competence.

Mattar et. al. (2012) administered a questionnaire to 51 teachers with autistic students that investigated the relationship between educational competencies in both job satisfaction and psychological stress. The researchers found there is a statistically significant positive correlation between educational competencies and job satisfaction among teachers with autistic students. Furthermore, there is a statistically significant negative correlation between educational competencies and stress among teachers with autistic students.

Bouck, Maeda, and Flanagan (2012) explored the relationship between assistive technology in school and post-school outcomes. The researchers evaluated data from the National Longitudinal Transition, which showed that only 7.8% of students received assistive technology in their high school, and only 1.1% received it after school. The results showed that there is no statistically significant difference in the students' outcomes based on the presence of assistive technology.

Bataineh, Dababneh, and Baniabdelrahman (2010) investigated teachers' competencies regarding educating students of learning disabilities in regular classrooms in Jordan. The authors found that teachers lack many of the needed competencies, and need more training with regard to the competencies of social development, evaluation, and instruction. The results also showed that teachers with less years of experience had better competencies than the teachers with more years of experience, which may mean that recently graduated teachers are receiving up-to-date training. The researchers recommended the creation of more workshops and training programs for general education teachers of students with learning disabilities. Baniabdelrahman (2006) stressed the importance of exposing learners, especially those with learning problems, to authentic situations in teaching in which they practice the real life in their learning.

Jenkins, Jenkins, and Patton (1997) conducted a study to identify the state certification standards for teachers of students with learning disabilities. They collected information from

State Department and the District of Columbia teacher certification office. The researchers classified the standards under four categories: (a) certification categories (titles) and level(s), (b) teacher training requirements (i.e., courses, standards, and hours), (c) examination requirements for certification, and (d) other additional information.

Norlander, Shaw, and McGuire (1990) conducted a survey to identify the needed competencies of programs for students with learning disabilities. The researchers collected data from a sample of 299 practitioners. The results revealed that the most important competencies are assessment skills, cognitive interventions, and instructional skills, and management/leadership skills.

Hudson, Morsink, Branscum, and Boone (1987) reviewed 20 years of educational research to identify competency statements for teachers of students with learning disabilities. The authors listed 16 competency statements in five areas. These included: general and special knowledge, planning and evaluation, curriculum content, clinical teaching strategies, and behavior management.

### **Purpose and Questions of the Study**

In this study, the researcher sought to evaluate the competencies of teachers of students with ASD-- which competencies they have, which competencies they lack, and which competencies need to be enhanced. The researcher addressed the following questions:

1. What are the teachers' evaluation of their competencies of dealing with the students with autism spectrum disorders?
2. What are the competencies of the teachers of the students with autism spectrum disorders which need to be enhanced, from the teachers' point of view?
3. Do the teachers' competencies of the students with autism spectrum disorders vary with respect to the teachers' variables?

### **Population and Sample of the Study**

The population of the study consisted of teachers in public education schools in the Riyadh district. The researcher sent the questionnaire to the Ministry of Education to evaluate and approve the survey before distribution. The researcher received an official approval from the Ministry of Education, after which the researcher sent the questionnaire electronically to randomly-selected public schools in the spring and summer of 2016. Three thousand teachers received the questionnaire, and 2,402 responded to the survey. The researcher sent the questionnaire to the non-respondents three times, but otherwise did not participate in the study. Table 1 presents the distribution of the sample over the different variables of the study.

Table: 1

## Distribution of the Participants over the Variables of the Study

	Variables	Frequency	Percentage
Age	< 30	1854	77.19%
	30 – 40	258	10.74%
	> 40	290	12.07%
Major	Education	1883	78.39%
	History	229	9.54%
	Special Edu.	242	10.07%
	Others	48	2.00%
Gender	Males	1204	50.12%
	Females	1198	49.88%
Education	High school	129	5.37%
	College diploma	1178	49.04%
	Qualification / BA	989	41.17%
	MA	106	4.41%
Experience	< 5 years	1862	77.52%
	5 – 10	249	10.36%
	10 – 15	247	10.28%
	> 15	44	1.84%

Table 1 shows that 2,402 teachers participated in the study: 1,204 males and 1,198 females. Table 1 also shows that of the 2,402 participants, 1,854 were 30 years old or younger, 258 were between 30 and 40 years old, and 290 were more than 40 years old. There were 129 (5.37%) teachers holding only a high school diploma, 1,178 (49.04%) holding a 2-year community college diploma, 989 (41.17%) holding a bachelor's degree, and 106 (4.41%) teachers holding a post-graduate degree. With regard to the teachers' majors, there were 1,883 (78.39%) who were majoring in education, 229 (9.54%) majoring in history, 242 (10.07%) majoring in special education, and 48 (2.00%) majoring in other fields.

With regards to the teachers' teaching experience, Table 1 shows that there were 1,862 teachers with 5 years of experience or less; 249 with between 5 to 10 years of experience; 247 with between 10 to 15 years of experience; and 44 with more than 15 years of experience.

### Design and Instrument of the Study

In this study, the researcher used a survey design to evaluate the educational competencies of Saudi teachers in the Riyadh district. In order to achieve the objectives of the study and to answer its questions, the researcher constructed a 25-item Likert scale questionnaire

from related literature about educating students with disabilities in the regular classroom. The questionnaire consisted of two parts. Part 1 dealt with the participants' personal information. Part 2 consisted of five subscales: (a) definition (1 item), (b) rights and procedures (items 2 and 3), (c) student evaluation (items 4 – 15), (d) social/emotional development (items 16 –19), (e) classroom management (items 20 and 21), and (f) relationships with families and colleagues (items 22 – 25).

### Validity and Reliability of the Instrument

The researcher employed three professors specializing in ASD and three classroom teachers to evaluate the validity, accuracy, clarity, appropriateness, and design of the study instrument. The researcher modified the instrument according to their recommendations, such as clarifying phrasing or evaluating new variables.

In order to ensure the reliability of the instrument, the research used the test-retest procedure of the questionnaire on a pilot study, with a 4-week period between the two times. The researcher distributed the questionnaire to 30 teachers who were not included in the sample of the study. The researcher calculated the Pearson correlation coefficient of the test to be 0.9121.

The independent variables of the study were the teachers' age, gender, qualification, major, and college of education, while the dependent variable was the respondents' point of views of the competencies of the teachers of the students with autism spectrum disorders.

### Findings

The researcher analyzed the collected data using the SPSS software package. The researcher performed analysis of means and standard deviations, and ran an ANOVA test.

**Research Question 1.** The first question of the study deals with the teachers' evaluation of their competencies of dealing with the students with autism spectrum disorders. Table 2 presents the items, their means, and their standard deviations.

Table: 2

#### Teachers' Evaluation of their Competencies

No.	Item	Frequency	Mean	Standard Deviation
1	Have knowledge of current definitions and characteristics of individuals with autism spectrum disorders, and how these disabilities	2402	2.6	0.81

	affect students' development and educational performance.			
2	Have knowledge of legal rights of the students and parents, and the responsibilities of teachers and schools regarding special education and related services.	2399	2.63	0.78
3	Have knowledge of procedures for accessing and providing special education, and related services (i.e., pre-referral, referral, and implementation).	2402	2.55	0.83
4	Be familiar with commonly used instruments for assessment of students with autism spectrum disorders.	2402	2.55	0.74
5	Identify informally each child's strengths and weaknesses across developmental areas.	2402	2.47	0.83
6	Use various formal and informal assessment techniques, including observation, interviews, samples of student work, student self-assessments, and teacher-made tests.	2402	2.58	0.75
7	Evaluate student performance on an ongoing basis in order to make instructional modifications and referrals when appropriate.	2402	2.49	0.78
8	Modify/adapt assessment tools in order to meet the specific needs of students with autism spectrum disorders.	2402	2.50	0.79
9	Use grading procedures appropriate to the needs of students with autism spectrum disorders instruction.	2402	2.55	0.80
10	Develop and implement lesson plans to meet students' unique needs as identified in Individualized	2402	2.53	0.75

	Education Programs (IEPs).			
11	Demonstrate knowledge of the continuum of services and placements for students with autism spectrum disorders.	2402	2.48	0.83
12	Plan and implement instruction in collaboration with the special education teacher when indicated..	2402	2.55	0.83
13	Modify instruction given students' unique learning characteristics.	2402	2.56	078
14	Modify instruction given such external factors as size of groupings, seating, pace of instruction, and noise level.	2402	2.58	0.77
15	Adapt technology for students with autism spectrum disorders.	2402	2.63	0.73
16	Integrate students with autism into the academic and social classroom community.	2402	2.58	0.75
17	Model respect and acceptance of students with autism for meaningful and ongoing social interactions among all.	2402	2.58	0.74
18	Provide opportunities for meaningful and ongoing social interactions among all students.	2402	2.62	0.72
19	Recognize and reinforce all student successes, even the small ones, to enhance self-esteem.	2402	2.58	0.69
20	Demonstrate various classroom management techniques that assist students with autism spectrum disorders in their social interaction and self-regulation.	2402	2.55	0.67
21	Facilitate the participation of all students in large- and small-group interaction.	2402	2.52	0.72
22	Promote positive attitudes toward individuals with disabilities and	2402	2.57	0.52

	autism spectrum disorders and their families.			
23	Understand the child's culture and community.	2402	2.66	0.53
24	Develop an effective partnership with the family in the education of the child.	2402	2.66	0.60
25	Establish and maintain collegial relationships with school and community Preparation of Special Education.	2402	2.66	0.52
Whole	Items 1-25	2399	2.57	0.56
Definition	Definitions and Characteristics	2402	2.60	0.81
Rights	Rights and Procedures	2402	2.60	0.76
Evaluation	Student Evaluation	2402	2.53	0.74
Instruction	Instruction	2402	2.57	0.67
Social	Social/Emotional Development	2402	2.60	0.67
Class management	Classroom Management	2402	2.07	1.36
Relationship	Relationships with Families and Colleagues	2402	2.63	0.41
Total		2399	2.57	0.56

The results show that the teachers' overall evaluation of their competencies is low, with a mean of 2.57 out of 5 and a standard deviation of 0.56. This indicates that the teachers in general are not satisfied with their competencies in dealing with pupils with autism. The highest mean score was 2.66, from items 23, 24 and 25, which deal with the teachers' relations with the pupils' parents. Although 2.66 is considered a moderate mean score, it lies on the lowest edge of the moderate category.

The results show that the overall mean score is 2.57, which is within the range of the lowest mean score category. Furthermore, the results of the study show that the mean scores of the six subscales—definition, rights, evaluation, instruction, class management, and relations—are 2.60, 2.59, 2.53, 2.60, 2.07, and 2.63, respectively; all of these were within the low mean

score category. This means that the teachers are not satisfied with their competencies in all of the six dimensions, regardless of their gender, qualifications, majors, age, and experience.

**Research Question 2.** The second question asks which competencies the teachers of the students with Autism Spectrum Disorders believe are in need of enhancement.

Table 2 (above) shows that teachers perceive that they should improve and enhance many educational competencies. The teachers evaluated their competencies with pupils with autism as low; this requires an immediate solution. Furthermore, the teachers were not satisfied with their competencies. This is related to the fact that the educators have often not received sufficient training about autism and autistic students. It is essential that teachers receive in-service training as soon as possible on these various competencies, in order to effectively meet the educational needs of autistic students.

These results align with the findings of Bataineh, Dababneh, and Baniabdelrahman (2004) and Lindsay et al. (2013), who called for more training for teachers of students with learning disabilities. Training programs have significant effects on teachers' knowledge of the needs of students with learning disabilities (Al-Khatib, 2007). Researchers have emphasized the importance of providing teachers of general education with the knowledge and skills needed to provide education for students with learning disabilities in the regular classroom (Stainback & Mavere, 1985). The competencies in which teachers need training include the definition of autism (item 1), rights and procedures (items 2 and 3), student evaluation (items 4 – 15), social/emotional development (items 16 – 19), and classroom management (items 20 and 21). Short-term in-service training may improve the the teachers' knowledge, skills, and competencies (Baniabdelrahman, 2004).

**Research Question 3.** The third question deals with whether the teachers' competencies of dealing with the students with autism spectrum disorders vary with respect to the teachers' gender, qualification, experience, and major. Table 3 presents the means and standard deviations of the participants' responses by major, gender, qualification, and teaching experience.

Table: 3

Frequencies, Percentages, Means, and Standard Deviations of the Levels of the Variables

	Variables	Frequency	Percentage	Mean	Standard Deviation
Major	Special	229	9.53%	2.615	0.413
	Edu.	242	4.14%	2.562	0.376
	History	1883	78.39%	2.854	0.374
	Education	48	19.83%	2.743	0.334
	Other(s)				
Gender	Males	1204	50.12%	2.57	0.57
	Females	1198	49.88%	2.56	0.55

Education	College	1178	49.04%	2.59	0.56
	diploma	989	41.17%	2.54	0.56
	BA	129	5.37%	2.61	0.56
	High	106	4.41%	2.50	0.58
	School Diploma MA				
Experience	< 5 years	1494	60.32%	2.66	0.83
	5 – 10	686	28.59%	2.45	0.74
	10 – 15	201	8.37%	2.44	0.60
	> 15	21	0.87%	2.45	0.59

Table 3 shows that the mean scores of all of the variables are 2.66 or less. The mean scores of the different levels within each variable are close to each other. In order to test the significance of the differences between these variables, the researcher performed an ANOVA. Table 4 presents the results of this test.

Table: 4

## Results of ANOVA Test

Source	DF	SS	MS	F-value	Pro > F
Model	12	22.757	1.896	6.16	0.001*
Gender	1	0.002	0.002	0.01	0.224
Qualification	3	0.643	0.214	0.70	0.554
Major	5	9.054	1.811	5.88	0.001*
Experience	3	0.641	0.214	0.69	0.555
Error	2386	734.312	0.3077		
Corrected Total	1398	757.070			

\* Significant at  $\alpha \leq 0.05$

The results in Table 4 show that there are statistically significant differences among the teachers' responses due to the teacher's majors at  $\alpha \leq 0.05$ . The results revealed that there are no statistically significant differences among the teachers' responses due to the teacher's, gender, qualification, major and their teaching experience at  $\alpha \leq 0.05$ .

This result agrees with Obaidat, et.al. (2013). The teacher's gender is not a factor in determining the level of competency. However, the results disagree in relation to a teacher's

qualification, major and teaching experience. These factors affect the level of competency in dealing with pupils with autism.

To assess which major of the teachers' qualifications had better evaluation, Tukey test was used. Table 5 below presents the results.

Table: 5

Results of Tukey Test of Multiple Comparisons of the Teachers' Scores according to their Majors

Major Comparison	Difference between Means	95% confidence	
3 – 4	0.035	-0.1896	0.2610
3 – 2	0.1305	-0.0009	0.2620
3 – 1	0.2226	0.1252	0.3206**
4 – 2	0.0948	- 0.1315	0.3212
4 – 1	0.1869	-0.0215	0.3954
2 - 1	0.0921	- 0.0077	0.1919

\*\*Significant at  $\alpha \leq 0.05$

The results of the Tukey Test of Multiple Differences showed that there is one significant difference between Level 1 (teachers whose major is special education) and Level 3 (teachers whose major is education). Teachers whose major is special education are more satisfied with their competencies than the teachers who are majoring in other fields in education. Teachers of special education usually study a number of courses regarding the different needs of students with ASD and learning disabilities. They also receive up-to-date training in the field of autism and special education in general. The results of the third question indicate that all teachers in Saudi Arabia in the first three primary stage classes need training and special workshops in order to familiarize themselves with the needs of ASD students.

## Conclusion

In this study, the researcher aimed to evaluate the teachers' competencies of dealing with students with autism spectrum disorders. The results showed that the Saudi teachers lack many competencies which are needed to deal with autism. The study revealed that the regular classroom teachers are in need of competency training to be able to effectively teach students with autism disorders.

## Recommendations

As a result of these findings, the ministry of education should provide regular classroom teachers in public schools with training to improve their competencies of dealing with students with autism spectrum disorders.

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