

Evaluation of special education programs offered in inclusive schools in Saudi Arabia from teachers perspectives

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Abstract: The purpose of this study was to evaluate special education programs that are applied in inclusive schools in Saudi Arabia from teachers perspectives. This study also aimed to discover whether statistically significant differences existed in the opinions of teachers based on their position, gender, teaching experience, and educational level. 615 questionnaires consisting of 20 Likert statements were distributed to a random sample of regular and special education teachers working in inclusive settings in Saudi Arabia. Eighty-five percent (n=523) teachers completed and returned usable questionnaires. An analysis of the collected data, using descriptive statistics and analysis of variance, indicated that the teachers' evaluations for special education programs applied in their schools were generally acceptable. The results also indicated significant differences in the teachers' evaluations based on their position and educational levels, with more positive evaluations found among special education teachers with master's degrees. Furthermore, significant differences were not found in the teachers' evaluations based on gender or amount of teaching experience.

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1.Introduction

The evaluation of special education programs in public school is important because it provides decision-makers, such as program personnel, school administrators, and government-funding agencies, with valuable data regarding the effectiveness of a variety of school programs. Moreover, the evaluation of educational programs provides necessary feedback that contributes to the development of the educational process by diagnosing and reinforcing its strengths, identifying its weaknesses or deficiencies, and developing appropriate strategies for improvement.

Students with disabilities can present significant educational program planning challenges because of their complex neurodevelopmental and co-occurring disorders and impairments (Magyar, 2011). To deliver effective educational programs to children with special needs, one must carefully plan, carry out, and modify these programs according to the changing conditions and needs of the target population. Program evaluation requires the collection of information about various elements of a program that can be used to make value judgments. Such value judgments may include decisions regarding the need for the program, the appropriateness of its goals, its implementation, and its outcomes (Maher & Bennett, 1984; Spaulding, 2008). Evaluation methods must also include efficiency measures to provide a comprehensive evaluation that shows the strengths and weaknesses of the programs offered. An objective evaluation can provide reliable information regarding the effectiveness of a program

in reaching the desired goals, and with this information, appropriate decisions can be made to improve a program. An objective evaluation can be useful when we carefully choose tools while considering the changes that might be achieved.

Within the last decade, special education services have improved to help students with disabilities in Saudi Arabia obtain high-quality educational services in the least restrictive environments (LREs). Despite this effort, improvements to these services are still needed. Students with mild disabilities receive their education in regular classrooms with some support from special education services such as resource rooms. These students also fully participate in the general education curriculum with some modifications and/or accommodations. Students with mild to moderate cognitive disabilities receive their education in separate classrooms in public schools, sharing time with their typically developing peers during non-curricular activities such as lunch or recess. Schools provide a special education curriculum for these students which differs from the general curriculum. Students with mild to moderate disabilities attend elementary school from ages 6 to 13 or 14 years, followed by middle school until age 18. Unfortunately, after they complete their education in elementary and middle school, many of these students do not have opportunities for further education except at some vocational training centers (Al-Ajmi, 2006). Such centers are designed to provide these students with vocational training and employment skills that support

independent living (Ministry of Health Care of Saudi Arabia, 2010).

According to the Ministry of Education in Saudi Arabia (2008), in 2007–08, 96% of students with multiple and severe disabilities received their education in separate institutions. These students are often educated in segregated settings that do not allow for the interactions with their typically developing peers that are available in inclusive settings, through which they could improve their social, communication, and academic skills. These institutes provide housing, food, financial aid, and assistance to students with moderate, severe, or profound intellectual disabilities, multiple impairments, and autism. The students remain at school all week and return home only on the weekends. Families of the children are often unable to come to the institutes every day because of the distance between the schools and the families' homes. Additionally, students with disabilities in these institutes receive individual education programs (IEPs) that are designed by the Ministry of Education and are modified from a special education curriculum. Those (IEPs) often do not meet the students' unique and individual needs.

Studies in special education (York & Vandercook, 1990; Derridan, 1994; Brownell & Pajares, 1999; Al-mamary, 2000; Moffett, 2000; Nahhas, 2004; Al-Shlol, 2005) have indicated the importance of educational evaluation in enhancing the developmental outcomes of the educational process, and they have attempted to evaluate various aspects of programs to aid in the development of the education process. With a researcher-developed scale to measure the effectiveness of educational programs from the perspectives of teachers and managers, Derridan (1994) investigated the effectiveness of Jordanian special education institutions. Results indicated that all of the special education institutions were generally effective with regard to involvement of teachers and parents, activities in the classroom, and curriculum domains. On the other hand, management, characteristics of the institution, and educational atmosphere domains were evaluated negatively from the perspectives of teachers and managers. In Oman, Al-mamary (2000) studied the effectiveness of special education centers using a researcher-designed questionnaire covering six domains: curriculum, administration, educational atmosphere, characteristics of the center, characteristics of the teachers and staff working in these centers, and teaching methods. The results indicated that, from the perspectives of the teachers and managers, all special education centers were effective in all domains except in one domain (the characteristics of the teachers and staff working in these centers).

Nahhas (2004) conducted a direct evaluation of educational programs for the deaf in Jordan using a questionnaire and interviews with teachers and managers of deaf students. The programs were evaluated within four main areas: curriculum, educational methods, teaching aids, and classroom environment. Results indicated an acceptable evaluations of the whole four aspects of the deaf educational programs, as evaluated by teachers and managers. Moreover, the researcher pointed out number of weakness points with regard to curriculum and teaching aids aspects. In another study, Al-Shlol (2005) attempted to evaluate educational programs for students with intellectual disability in special education institutions in Jordan. The researcher analyzed the responses of teachers and managers working in these institutions regarding the effectiveness of the educational programs. The measures included four domains: program output, teaching methods, classroom environment, and services supported by the program. Results indicated negative responses of teachers and managers regarding the program outputs and services supported by the programs domains. The researcher stressed on the importance of promoting outputs and services of the applied special education programs in both segregated and included settings.

A number of studies pertaining to the evaluation of educational programs (Beloin & Peterson, 1998; Brownell & Pajares, 1999; Treder et al., 2000) have indicated that training for special and general classroom teachers is not only effective in helping them to improve their teaching strategies but also leads to the development of more positive attitudes towards exceptional children and towards the concept of inclusion. In particular, these researchers found that teachers who had completed training programs that examined the philosophy of inclusion and provided instruction in teaching skills and strategies for classroom management, time management, and assessment techniques had significantly improved attitudes toward inclusion. Several authors have also emphasized that training programs can only be successful when the topics are relevant to the needs of the teacher. If real changes are to occur, training programs should focus on areas in which teachers need improvement (Beloin & Peterson, 1998; Brownell & Pajares, 1999; Buell et al., 1999).

According to York and Vandercook (1990), support is a term that refers to the availability of various types of help. Teachers working in inclusive classrooms require four types of support: (a) resource support, which requires the provision of instructional materials (e.g., computers and books), financial resources, informational resources (e.g., professional literature), and human resources (e.g.,

paraprofessionals, consultants, teacher's aids); (b) moral support, which refers to the person-to-person interactions that recognize individual worth and includes listening and acceptance of ideas and feelings without criticism; (c) technical support, which refers to concrete strategies, methods, or ideas, which are provided to teachers by resource materials, in-service training, staff development activities, on-site collaborative consultation, and peer coaching; and (d) evaluative support, which refers to assistance in collecting information that allows the support to be monitored and adjusted. Results of Al-mamary (2000) also indicated a number of problems that limit the effectiveness of special education centers. Such problems include a lack of preparation, habilitation, and in-service training programs for special education teachers; an absence of guidance curriculum specially designed for mental retardation programs; and a lack of teacher guidelines on how to address educational supply shortages.

Paligaro (1998) attempted to evaluate methods for teaching math to deaf students with a questionnaire that was distributed to 259 teachers of deaf students. The results indicated that 90% of those teachers used different types of technological aids for math education such as computers, calculators, and writing exercises for their higher-grade students. However, for the primary grade students, the teachers used traditional methods such as writing exercises and ongoing training to resolve any mathematical issues. Nahhas (2004) also confirmed the importance of teachers using reinforcement methods within the educational programs, and provided a set of recommendations for in-service training that aimed to enhance teacher competency in sign language and specialized educational methods for deaf students.

With regard to the potential differences in the teachers' evaluations on the effectiveness of special education programs with respect to teachers' gender, position (special education or general education teacher), teaching experience, and educational level, most of the studies did not indicate any differences depending on both gender and teaching experience variables (Derdrian, 1994; Nahhas, 2004; Al-Shlol, 2005). With regard to teachers position, (Al-mamary, 2000; Nahhas, 2004; Al-Shlol, 2005) studies indicated that special education teachers had more acceptable evaluations of the special education programs applied in their schools in comparison with general education teachers. And also with regard to teachers educational level variable, Al-Shlol (2005) indicated more positive evaluation of special education programs with more advancing teachers educational level. This result also confirmed by Nahhas (2004) study that indicated teachers with a master degree had more acceptable evaluation for the deaf educational programs. But on

the other hand Al-mamary (2000) found no difference in the evaluations of special education programs depending on the educational level variable.

Statement of purpose

Students with special needs are an integral part of the educational system. Therefore, schools strive to fulfill these students' needs beginning at admission and ending with graduation. Throughout this process, students with disabilities are expected to face different types of problems related to the limitations imposed by their disabilities. Due to the diverse nature of the problems faced by students with disabilities, the need arises for comprehensive specialized educational programs that can meet these diverse needs within mainstream environments.

This study aimed to determine the opinions of Saudi teachers on the evaluation of inclusive special education programs that are applied in their schools. These teachers are primarily responsible for implementing such programs, and thus, their perspectives on the efficacy of these programs in meeting the needs of students with disabilities are important. In addition, this study attempted to find statistically significant differences in teachers' evaluations of the special education programs based on their position, gender, teaching experience, and educational level.

Specifically, this study aimed to answer the following questions:

- 1- What opinions do teachers working in inclusive settings in Saudi Arabia hold regarding the evaluation of special education programs applied in their schools?
- 2- Are there any significant differences based on position, gender, teaching experience, or educational level in teachers' evaluations of special education programs?

The evaluation of special education programs encourages the integration of special needs students into all social institutions. Therefore, this study attempted to evaluate these educational programs from the perspective of their providers (general and special education teachers) to determine the suitability of programs for the given student groups. Special education teachers are considered providers of these programs and bear the primary responsibility for applying the special education programs. Moreover, this study aimed to identify the strengths and weaknesses of these programs to encourage the re-evaluation of program goals and methods and a re-training of the staff.

2. Methods

This quantitative research design utilized a survey to determine the perspectives of regular and special education teachers regarding the special education programs applied in their schools.

Participants

Special education teachers working in inclusive schools in Riyadh, Al-Baha, Jeddah, and Al-Dammam districts which considered as a biggest cities in Saudi Arabia were invited to participate in this research study. Participating teachers were administered a standardized Likert questionnaire to determine their evaluations of the special education programs applied in their schools. The researcher contacted the appropriate school administrators in the aforementioned cities to obtain permission to conduct this study. Initially, the questionnaire was administered to 615 general and special education teachers; 538 of the questionnaires were completed and returned, 16 of which were excluded for providing incomplete information. Thus, the final sample consisted of 522 general and special education teachers from various inclusive schools within the aforementioned cities in Saudi Arabia. The teachers were randomly selected from the study population. Table (1) provides the sample distribution according to the variables of the study: gender (female or male), position (general or special education teachers), education level (bachelor's degree, higher diploma, or master's degree), and teaching experience (less than 5 years, 5–10 years, more than 10 years).

Table 1. Distribution of the Study Sample According to the Variables of the Study.

Variable		Number	Total
Position	Special education	239	522
	General education	283	
Gender	Female	198	522
	Male	324	
Education Level	Bachelor or less	289	522
	Higher diploma	82	
	Master's	151	
Teaching Experience	Less than 5 years	268	522
	5–10 years	188	
	More than 10 years	66	

Measures

A researcher-designed Likert questionnaire was used to examine teachers' evaluations for special education programs at inclusive schools. The questionnaire was constructed specifically for this study to obtain the necessary data required to meet the objectives of the study. The final form of this questionnaire consisted of 20 items divided into six domains; Educational environment (3 items), Educational means and methods (3 items), Social skills (4 items), Family participation (3 items), Entertainment (3 items), Program outputs (4 items). The face validity of the questionnaire was verified by a group of professors (eight professors) trained in the field of special education that rated the clarity and appropriateness of the questionnaire statements. Based on the group's observations and suggestions, necessary

adjustments were made; some statements were added to a number of domains, some phrases were reworded, and some statements transferred to other domains. After implementing the professors' suggestions, their percentage of agreement reached 87%. Construct validity was verified with the principal component analysis (PCA) to determine the underlying factors of study instrument. The assumptions of inter-correlation of variables suggested that the data was appropriate for the usage of PCA. Bartlett's Test of Sphericity was found to be statistically significant [$X^2(522) = 4210.880, p = 0.000$]. The measure of Kaiser - Meyer - Olkin (KMO) was 0.915 indicating adequate information about the measure of each construct. The overall measurement of sampling adequacy (MSA) fulfilled the requirement (> 0.50).

The factor loadings at > 0.30 were accepted, while the loadings of < 0.30 were suppressed. The study instrument (20) items were subjected to Varimax rotation method using PCA as a test of construct validity. After conducting the analysis the items with weak loadings < 0.30 or with negative values were deleted. The results revealed that there were six factors measured by the data with only 20 items retained for further analysis as shown in Table 2.

Factors with Eigen values greater or equal to one accounted for about (83.20%) of the total variance. The first rotated factor comprised 3 items [A2, A1, A3]. The factor loadings were from 0.555 to 0.796 which accounted for (16.4%) of variance. These items addressed "Educational environment". The second rotated factor comprised 3 items [B4, B5, B6]. The factor loadings were from 0.421 to 0.761 which accounted for (12.3%) of variance. These items addressed "Educational means and methods". The third rotated factor comprised 4 items [F20, F18, F17, F19]. The factor loadings were from 0.401 to 0.757 which accounted for (14.8%) of variance. These items addressed "Program outputs". The fourth rotated factor comprised 4 items [C7, C10, C9, C8]. The factor loadings were from 0.381 to 0.649 which accounted for (11.7%) of variance. These items addressed "Social skills".

The fifth rotated factor comprised 3 items [D12, D13, D11]. The factor loadings were from 0.402 to 0.575 which accounted for (10.5%) of variance. These items addressed "Family participation". The sixth rotated factor comprised 3 items [E16, E15, E14]. The factor loadings were from 0.397 to 0.525 which accounted for (9.7%) of variance. These items addressed "Entertainment".

In contrast, the reliability of the internal consistency of the study instrument was measured using Cronbach's Alpha, which reached a value of 0.81 as shown in Table 3.

Table 2. Rotated Component Matrix of the Final study instrument Items

	Factors					
	1	2	3	4	5	6
A3	.796					
A1	.671					
A2	.555					
B4		.761				
B5		.456				
B6		.421				
F19			.757			
F17			.716			
F18			.411			
F20			.401			
C8				.649		
C9				.649		
C10				.575		
C7				.381		
D11					.575	
D13					.535	
D12					.402	
E14						.525
E15						.513
E16						.397
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.					0.915	
Bartlett's Test of Sphericity					p=0.000	
Approx. Chi-Square					4210.880	
Total variance					(83.20%)	

Table 3. Cronbach's Alpha Coefficients for the Measure and domains

Domains	Number of Items	Alpha
Educational environment	3	0.87
Educational means and methods	3	0.84
Social skills	4	0.81
Family participation	3	0.91
Entertainment	3	0.88
Program outputs	4	0.82
Measure		0.86

Procedures

The participants were asked to rate each of the 20 statements using a 5-point Likert-type scale, with possible response choices including: (1) strongly disagree, (2) disagree, (3) undecided, (4) agree, or (5) strongly agree. The evaluations of the study sample members were calculated by extracting the means of the responses for each member of the sample. If the mean for the responses of a particular sample member were above (3.34), their evaluation of the special education programs applied in their schools was considered 'Good;' if the mean ranged from (1.67–3.34), their evaluation was considered 'Acceptable;' and if the mean were below (1.67), their evaluation of the educational programs was considered 'Weak.' Higher mean scores indicated better evaluations of the special education programs, and lower mean scores indicated weaker programs.

Data Analysis

To answer the research questions, the data were analyzed using descriptive statistics for categorical data (i.e., means, standard deviations). Data were numerically coded and transferred to the statistical package for social science (SPSS) pack 20. To measure the relationship between several independent variables (gender, position, teaching experience, and educational level) and one dependent variable (teachers' evaluations on the effectiveness of educational programs), a multivariate analysis (ANOVA) and Tukey's HSD (Honestly Significant Difference) tests were used.

3. Results

The first research question pertaining to this study aimed to define the effectiveness of educational programs for students with disabilities in regular classes at inclusion schools in Saudi Arabia from the teacher's perspective. Table 4 shows the means and standard deviations of the responses from the study sample for all six domains of the questionnaire.

Table 4 indicates that the mean value of the 'overall' domain was 2.93, which suggests that the evaluations of the teachers on the special education programs were generally 'Acceptable.' We also found that most of the domains had 'Acceptable' evaluations, and two of the domains (Family participation) and (Entertainment) had the highest

mean scores of ($m=4.28$) and ($m=3.49$), and were considered 'Good'. The (program outputs) domain clearly had the lowest mean score (1.60), indicating that the teachers had a 'weak' evaluation of this domain for the special education programs applied in their schools.

A deeper examination of the teachers' responses exhibits their most important comments regarding the efficacy of the special education programs applied in their schools. Table 4 shows the mean score and standard deviation for all items within the study instrument. Item numbers 12, 13, 11, 14, and 15, in that order, had the highest mean scores and were rated 'Good' by the teachers. Item number 12 (The educational program keeps to coordinate between the family and members of the multidisciplinary team and provide them with a consultative services) had the highest 'Good' rating with a mean score of 4.49 and a standard deviation of 0.64. In contrast, item numbers 2, 18, 19, 20, and 17, in that order, had the lowest mean scores and were 'Weak' in the teachers evaluations. Item number 17 (The educational program evaluates teachers performance and educational outcomes) had the lowest 'Weak' rating with a mean score of 1.46 and a standard deviation of 0.73, which suggests the nature of the problems from which most of the special education programs suffer.

The second aim of this research was to investigate the potential differences in the teachers' evaluations on the effectiveness of programs offered to students with disabilities in regular classes at inclusion schools with respect to teachers' gender, position, teaching experience, and educational level. To address this aim, the researcher extracted the mean and standard deviation of the teachers' responses to questions for the aforementioned variables, as shown in Table 5.

As shown in Table 5, the mean effectiveness scores differ based on the gender of the respondent. The male group had a mean of $\bar{X} = 57.5340$ and a standard deviation of $\sigma = 10.14578$; the female group had a mean of $\bar{X} = 58.0960$ and a standard deviation of $\sigma = 10.95426$. An ANOVA test between the means yielded $F(1, 520) = 0.354$ at $p = 0.552$, for $p > 0.025$. Thus, no significant differences were found in the means among the gender groups. The findings thus indicated that the responses were independent of gender.

For the second variable, differences in the mean effectiveness scores were found based on the teacher position (special education teacher or general education teacher), as shown in Table 5. The special education teachers group had a mean of $\bar{X} = 61.7866$ and a standard deviation of $\sigma = 11.94738$, whereas

the general education teachers group had a mean of $= 54.3357$ and a standard deviation of $\sigma = 7.47599$. An ANOVA test between the means yielded $F(1, 520) = 75.212$ at $p = 0.000$, for $p < 0.025$. These results indicate a statistically significant difference between the means of the special education teachers and the general education teachers groups. In addition, Tukey's HSD

(Honestly Significant Difference) tests for the comparisons indicated that the special education teachers group had a more positive evaluations of special education programs applied in their schools than general education teacher group.

Regarding the third variable, as shown in Table 5, differences in the mean effectiveness scores were found based on the education level of the respondent (bachelor's degree, higher diploma, or master's degree). The bachelor's-level group had a mean of $= 53.0727$ and a standard deviation of $\sigma = 4.74176$, the higher diploma group had a mean of $= 60.1463$ and a standard deviation of $\sigma = 10.96473$, and the master's group had a mean of $= 65.3907$ and a standard deviation of $\sigma = 12.93676$. An ANOVA test between the means yielded $F(2, 519) = 98.033$ at $p = 0.000$, for $p < 0.025$. These results indicate a statistically significant difference between the means of the different education level groups. In addition, Tukey's HSD (Honestly Significant Difference) tests for the comparisons indicated that the master's-level group had a more positive evaluations than the other groups, as shown in Table 5. The findings indicate that the respondents in the master's group have significantly more positive opinions than those in the other groups.

Table 5 shows that the mean effectiveness scores differ with respect to the experience variable (less than 5 years, 5-10 years, and more than 10 years). The 'less than 5 years' group had a mean value of $= 55.7052$ and a standard deviation of $\sigma = 9.41902$, the '5-10 years' group had a mean of $= 59.7447$ and a standard deviation of $\sigma = 11.24300$, and the 'more than 10 years' group had a mean of $= 60.3485$ and a standard deviation of $\sigma = 10.58808$. An ANOVA test between the means yielded $F(2, 519) = 2.996$ at $p = 0.089$ for $p > 0.025$. The results indicate that there are not any significant differences in the means of the different experience level groups. The findings confirm that the respondents' experience did not significantly influence their evaluations.

Table 4. The Means and Standard Deviations of the Responses From the Study Sample Members for all Items and Domains in the Questionnaire.

Domain and Items	M	SD	Evaluation
Educational environment	2.52	1.27	Acceptable
1. The educational program provides a diverse learning environment that encourage learning process	2.52	1.28	Acceptable
2. The educational environment is planned well and compatible with the goals of the educational program.	2.08	1.37	Acceptable
3. Learning environment prevails team spirit and cooperation.	2.98	1.15	Acceptable
Educational means and methods	2.70	1.05	Acceptable
4. Educational means and methods used in the educational programs focus on facilitating the learning process of students with disabilities and taking into account the individual differences among them.	2.67	1.13	Acceptable
5. Educational means and methods used in the educational programs achieve the excitement and motivation for learning process.	2.85	1.06	Acceptable
6. The educational program focuses on the modern software and technology in teaching process.	2.59	0.96	Acceptable
Social skills	2.98	0.84	Acceptable
7. The educational program provides a purposeful activities for the development of social skill of the individuals with disabilities.	2.94	0.87	Acceptable
8. The educational program enhance the idea of cooperation between family and school with regard to social skills training.	3.07	0.83	Acceptable
9. The educational program focuses on the use of behaviour modification techniques trough social skills training in adequate and permanent manner.	3.33	0.89	Acceptable
10. The educational program adopts the idea of participation in public activities in the community in purpose of developing social skills.	2.59	0.77	Acceptable
Family participation	4.28	0.74	Good
11. The educational program keens to involve families in the evaluation process of their children and the development and implement of the treatment plans.	4.05	0.81	Good
12. The educational program keens to coordinate between the family and members of the multidisciplinary team and provide them with a consultative services.	4.49	0.64	Good
13. The educational program provides workshops especially for families on regular basis.	4.29	0.75	Good
Entertainment	3.49	0.90	Good
14. The educational program confirms on the purposeful recreational aspect.	3.76	0.91	Good
15. The educational program keen on community participation for individuals with disabilities in recreational activities.	3.47	0.83	Good
16. Recreational activities provided in the educational program are a diverse well-planned activities.	3.23	0.96	Acceptable
Program outputs	1.60	0.80	Week
17. The educational program evaluates teachers performance and educational outcomes.	1.46	0.73	Week
18. In case of failure of achieving the goals, the educational program is reconsidered.	1.67	0.79	Week
19. The educational program keens to follow up with individuals with special needs after leaving school.	1.66	0.80	Week
20. The educational program outputs are considered high and does not need to be modified.	1.59	0.89	Week
Total	2.93	0.93	Acceptable

Table 5. Means, standard deviations and results of analysis of variance (ANOVA) for the teachers evaluations depending on the (Gender, position, Education level, and Experience) variables

Variable	N	Mean	Std. Deviation	ANOVA	Tukey's Summary
Gender					
Male	324	57.5340	10.14578	F(1, 520)=0.354 p=0.000	-
General Education	283	54.3357	7.47599		
Position					
Special Education	239	61.7866	11.94738	F(1, 520) = 75.212 p=0.000	Special Education Group
General Education	283	54.3357	7.47599		
Education Level					
Less than Bachelor	289	53.0727	4.74176	F(2, 519)= 98.033 p= 0.000	Masters Group
Higher Diploma	82	60.1463	10.96473		
Master	151	65.3907	12.93676		
Experience					
Less Than 5 Years	268	55.7052	9.41902	F(2, 519)=2.996 p=0.089	-
5-10	188	59.7447	11.24300		
More Than 10 Years	66	60.3485	10.58808		
*The mean difference is significant at the 0.025 level					

4. Discussion

The purpose of this study was to examine opinions do teachers working in inclusive settings in Saudi Arabia hold regarding the evaluation of special education programs applied in their schools. In addition, this study attempted to find any statistically significant differences in teachers' evaluations of the special education programs based on their position, gender, teaching experience, and educational level. The results from the first study objective indicate that the 'overall' teachers' evaluations of the special education programs were generally 'Acceptable'. This outcome confirms the detailed results of the study instrument domains: three of the domains (Educational environment, Educational means and methods, and Social skills) had 'Acceptable' evaluations, two of them (Family participation and Entertainment) had the highest mean scores and were considered 'Good', and one domain (program outputs) had the lowest mean score, indicating that the teachers had a 'weak' evaluation of this domain for the special education programs applied in their schools.

These findings may be related to certain reservations held by teachers regarding the special education programs applied in their schools. Family participation and Entertainment Activities within the special education programs may be considered vital and easily applicable to special education programs, which may explain why teachers had the highest evaluations for those aspects or domains. In contrast, the program outputs domain was viewed as a 'Weak' domain. This result that may be related to the importance of this domain for successful special education programs because a successful program output will eventually lead to a successful educational program. These findings are in agreement with Al-mamary (2000) study, which indicated that special education centers were effective in all domains (curriculum, administration, educational atmosphere, characteristics of the center, and teaching methods) except in one (characteristics of the teachers and staff working in these centers). In addition, the findings of this study were in agreement with those of the Derdrian (1994) study, claiming that teachers and managers find all special education institutions in Jordan to be generally effective in the following domains: management, involvement of teachers and parents, classroom activities, curriculum, characteristics of the institution, and the educational atmosphere. This study also draws attention to the lack of guidance curriculum, especially in mental retardation programs, and the absence of guidelines for teachers when dealing with shortages of educational supplies. Al-mamary (2000) highlights a lack of preparation for special education teachers and the need for in-service training programs for those teachers.

A detailed analysis of the study results from the questionnaire items within the given domains enables us to explore the teachers' evaluations to define the 'Good' 'Acceptable' and 'Weak' special education program elements. The teachers' evaluations of many items (such as items 11, 12, 13, 14, 15) were 'Good' with regards to the special education programs applied in their schools. The success of special education programs in providing workshops for families and involving them in the evaluation, development, and implementation of their child treatment plans may help those programs in achieving their goals. And this may be due to the interest shown by families to actively participate in the educational programs for their children. Derdrian (1994) supports this result by indicating that special education institutions in Jordan were generally effective with regard to involvement of teachers and parents in the education process.

Moreover, many items (such as 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 16) were evaluated by teachers as 'Acceptable' aspects of the special education programs applied in their schools. Encouraging learning process by providing a well-planned educational environment, proper educational means and methods, modern technology, purposeful social activities, behaviour modification techniques, and participation in recreational activities in the community will eventually ends up with a proper educational outcomes. Success in addressing those aspects of special education programs were not fully achieved, and this may be related to the limited sources of such programs in the provision of such services and providing necessary training opportunities for both general and special education teachers. This result is supported by Al-Shlol (2005) who stressed on the importance of promoting outputs and services of the applied special education programs in both segregated and included settings.

In addition, teachers' evaluations were 'Weak' for many aspects of the special education programs applied in their schools, such as items (17, 18, 19, and 20). We noticed that most of the negative responses from the special education teachers related to the educational outputs of these programs. continuous evaluation of teachers performance and educational outcomes, alongside with following up individuals with special needs after leaving the schools are considered as a most vital aspects of educational programs. Several authors have emphasized that training programs can only be successful when the training is relevant to the teachers' needs. If real changes are to occur, training programs must focus on areas in which teachers need improvement (Beloin & Peterson, 1998; Brownell & Pajares, 1999; Buell *et al.*, 1999). According to York and Vandercook (1990),

teachers working in inclusive classrooms require four types of support, including resource support, moral support, technical support, and evaluative support.

The findings of Beloin and Peterson (1998); Brownell and Pajares (1999); and Treder *et al.* (2000), support the result that the training of special and general classroom teachers is not only effective in helping them improve their teaching strategies but also leads to the development of positive attitudes towards exceptional children and the concept of inclusion. Those comments and items must be considered when preparing and applying special education programs.

Given the funding limitations and costs of instructional materials and equipment required by students with disabilities, these findings are not surprising. School systems vary in the availability of necessary resources. More effort should focus on helping teachers to develop innovative ways to produce their own instructional materials and/or adapt available materials to suit their needs. This issue can be partially addressed through in-service training, possibly in conjunction with teacher training institutions.

Results of the second study objective aimed to find significant differences in teachers' evaluations of special education programs based on teachers' position, gender, teaching experience, and educational level. These results did not indicate any significant differences in teachers' evaluations depending on teachers' gender and teaching experience; however, statistically significant differences were found in teachers' evaluations based on position (general and special education teacher) and education level (bachelor's, higher diploma, and master's), with the special education and master's-level groups exhibiting more positive evaluations. These findings are in agreement with (Al-mamary, 2000; Nahhas, 2004; Al-Shlol, 2005) studies which indicated that special education teachers had more acceptable evaluations of the special education programs applied in their schools in comparison with general education teachers. These findings are also in partial agreement with those of Al-Shlol (2005), which did not find significant differences in the evaluations of teachers and managers based on gender or experience, but did not agree with the finding of significant differences based on educational level. This disagreement may be related to the fact that the training involved in educational qualification enhances one's knowledge of beneficial teaching strategies for special educational programs and enables one to have a clearer view of the positive and negative aspects of special education programs.

In accordance with York and Vandercook (1990), in inclusive classrooms, informational resources such as professional literature and human resources including consultants are needed as a vital

enhancement of the educational process. In accordance with Beloin & Peterson (1998), Brownell and Pajares (1999), and Buell *et al.* (1999), training programs can be successful when the outcomes fostered are relevant to the teachers' needs.

As the designated teachers for students with disabilities, special educators usually attend IEP meetings. Teacher training programs may need to alter the way in which these educators are prepared. Greater emphasis should be placed on training all teachers to work with students of all abilities. General and special education departments at institutions of higher learning must work collaboratively to determine the skills or strategies that teachers should be taught if they are to successfully implement inclusive programs. Inclusion or mainstreaming of special education and other program majors may be useful at the university level to successfully prepare effective teachers (York & Vandercook, 1990; Bradley & West, 1994; Cole & Mclesky, 1997; Wigle & Wilcox, 1997; McLeskey & Henry, 1998; and Bull *et al.*, 2000).

The information discussed thus far leads to the following conclusions: Special education programs are considered to be a general director for all efforts aimed at endowing individuals with disability with an optimum level of autonomy. This goal can be accomplished through the continuous evaluation of the educational programs devoted to these individuals, especially with regards to the educational output of these programs. General and Special education teachers are considered the best evaluators of these programs, as they hold the largest responsibility for applying such programs effectively. Highly advanced special education programs are still required to meet the needs of special education students in inclusive settings, and this goal cannot be accomplished without continuous evaluations of special education programs and without highly efficient specialized personnel.

Based on the findings of this research, a number of recommendations can be made:

1. The broad scope of this study provides decision-makers, such as program personnel, school administrators, and government-funding agencies, with valuable data regarding the effectiveness of a variety of school programs, and suggests a need for additional quantitative and qualitative studies of special education programs directed towards specific disabilities, such as learning disabilities, intellectual disabilities, hearing and visual disabilities, and autism.
2. This study encourages special education programs to include efficiency measures to provide a comprehensive evaluation that shows the strengths and weaknesses of the offered programs.

3. The findings of this study compensate the lack of similar up-to-date quantitative and qualitative studies and suggests a need for further research to further research to evaluate different types of special education programs.
4. The findings of this study are limited to the spatial conditions within which this study was applied; care should be taken in generalizing these results to communities outside of Saudi Arabia.

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