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TRAINING NEEDS FOR THE TEACHERS OF VISUALLY IMPAIRED AND BLIND STUDENTS AT SPECIAL EDUCATION CENTERS IN AMMAN, JORDAN

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Abstract:
The present study aims at identifying the needs of the teachers of visually impaired students in Amman city. For this end, the researchers have developed a special tool which consists of 31 statements. The tool has been validated by a group of professionals from the University of Jordan and World Islamic University. The liability of the tool was calculated by using (Cronbach's, alpha=0.953). The sample has been collected from some governmental and no governmental schools which deliver special education services to students with visual impairment. The community research comprises (100) teachers of both sexes, from 20 schools. Sixty participants (60) have been chosen to a chief the purpose of the study. The participants had been chosen according to the following criteria; teach at least one visual impaired or blind student, have an experience at least 6 months. For the purpose of this study, the researchers have tested the assumption. Through using SPSS program (Version 21). A suitable statistical approaches (Mean, SD Percentages; t-test; Chronback alpha test). ANOVA, Ancova and post comparative have been used to analysis the data.

The results of the study revealed the need for training in braille writing and reading, communication skills for the visually impaired teachers (mean=2.07/4) which is the lowest and for all statements was (mean=2.81/4) with percentage of 70.28%. Which consider moderate according the scale? However the statement which indicated the need for early intervention has a (Mean=3.52) which was the highest of all scale items. Also the study indicates no relation between demographic variable (sex; education; experience;

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class level) and training needs (sig 0.677, 0.094, 0.434, 0.322; respectively) but there is a significant difference (*.003) due to teachers' characteristics. In addition, when Scheffe's test for post Hoc comparison (*0.76) the results indicate presence of significant differences in quality and quantity of training needs of the teachers of the visually impaired students relate to teachers' characteristics toward the sighted teachers of visually impaired students (mean=3.06). The results of Scheffe's test for Post Hoc comparison (*0.89) also indicate a presence of significant, a difference in the teachers of the visually impaired student between the blind and partially sighted teachers in favor of partially sighted teachers (mean=3.19).

Keywords: training needs, teacher, visual impairment, deaf students

1. Introduction

The exceptional students are part of the school community. This category of learners constitutes is around 2.4% of school age community in United States of America, regardless of ethnicity and the level of education (Disability statistics, American Community Survey, 2013). This category has the right to learn, live, grow physically, socially and psychologically, as well as the other non-exceptional students (CEC, 2015). So that, all societies should consider them as a collaborate partner in developing the country. Exceptional students have an actual and potential capability to share with the others their efforts and participate in the community development as the non-exceptional learners (Hallahan, et al., 2011).

As for the blind and visually impaired students in Jordan, special schools are limited to Amman. Not all provinces included, but the visual impaired and blind individuals are easily integrated go to the regular schools which are not well prepared, but resource rooms are available in some of these schools and the teachers aren't prepared and confidant to teach visually impaired and blind.

However, in Jordan only two schools for blind students, they are Abdullah Bin Um Muktoom (The blind Prophet Muhammad Friend) school which provides the basic (elementary) education from the 1st grade to the 6th grade. The second school is, the Blind High School which provides education from 7th grade to the Second Literary Secondary grade. Both schools are located on the capital (Amman) of Jordan. The two schools contain 220 blind students and hires 120 teachers (Shaman Abd Al- Mujeed Al-Majalee et.al. 2008).

For that reason, there is currently a critical need for teachers of students with visual impairment or blindness. As well, there is a worldwide shortage of professionals who work with students with visual impairments. Many countries directed to overcome this

shortage. For example, in United States many universities created two professional programs (California University, Florida University, etc.) which enable the teaching staff to work with school age exceptional students. The first is a "*Teacher of Students with Visual Impairments*", the second is the program of "*Orientation and Mobility Specialist*." The above mentioned programs are based on separate professional standards (www.teachingvisuallyimpaired.com).

One article reported on a descriptive study standards and criteria for competence in Braille literacy within teachers' preparation program and specific role played in the achievement of proficiency in Braille literacy by university teachers' preparation programs in blindness and visual impairment. The study summarized the need for such research, historical background, research methods, discussion of standards and implication for personnel preparation for special education (JVIB, 2011).

A few studies were presented to evaluate the knowledge and training needs competencies of for the teachers who teach the visually impaired and deaf students. (Derrick, et. al, 2009), in his study based on the opinions of more than 30 professionals, found out the development of a set of assistive technology competencies for teachers of students with visual impairments. The result of the study was the development of highly reliable and valid set of (111) assistive technology competencies.

According to the national survey, nearly about (6%) of teachers who work with deaf-blind students, have specialized training in the field. The few new graduate of teacher preparation programs in the field coupled with the shortage of specialized trained teachers, indicates that there is a critical need to train more teachers to meet the unique needs of these students with visual impairment and blind (JVIB, 2016).

Another study was conducted by Lizhou, et al 2011. A survey on 165 teachers of students with visual impairments from Texas examined perceptions of their knowledge of assistive technology. The result indicated that they had significant in knowledge in 55 (74.32%) of the 74 assistive technology competencies that were examined, and that 57.5% of them lacked adequate confidence about teaching assistive technology to students.

While there are some programs for preparing the teachers of visually impaired and blind students in United States and Canada, there aren't in Jordan. Some Jordanian Universities deliver general programs, Diploma and Bachelor, Master or even PHD in Special education in general which are not enough to teach specific disability such as visual impairment or hearing impairment and the other categories of exceptional students (Jordan University, Special education department, 2016). For this reason, the curriculum of special education in Jordan needs to be revised and modified to specified, certain knowledge and skills to build up programs to prepare these teachers for those students. (Jordanian Higher Council, 2016)

A study was conducted by Marie Knowlton & Karen Berger (note dated). The purpose of the study was to identify the valid competencies required for Braille teachers who teach in elementary and secondary school, the survey contains an extensive list of skills and asked the survey participants to rate those skills as to be needed.

A study conducted by (Sandra Lewis et al 2010) to determine if there is differences in the teacher roles, training needs and perception of supervisors competencies. The results revealed that the para-educators in local schools reported more training, the provision of less direct service, and greater supervision by more competent teachers of students with visual impairments than did their residential school counterparts.

D.W. Rapp & Rapp A. J. (1992) performed a survey on 72 secondary teachers of students with visual impairments. The researchers found that the teachers encounter continuing difficulties in providing materials and equipment for mathematics instruction and that few students with visual impairment are participating in advanced mathematics.

2. The importance of the study

The important of the study came from the following points:

1. The study improves the theoretical knowledge and skills among the teachers of visually impaired and blind learners.
2. The study explores the issues and problems facing the teachers of the visually handicapped students.
3. The study takes into consideration the teachers points of view toward the problems they complain during teaching- learning process.
4. The study results used in improving and developing in-service and preparing rehabilitation programs for the teachers of visually impaired students.

3. Research questions

For the purpose of this study the following question were mentioned:

1. What are the teachers' knowledge and training skills needed for teaching visually handicapped students in Amman Province area?
2. Is there a significant differences in evaluating the teachers Knowledge and training skills congruent of the study variables?
3. Do the knowledge and training skills differ in the quantity and quality according to the characteristics of the teacher?

4. Study variables

Independent variables: sex, educational level, experience, characteristic of the teacher.
Dependent variable: the knowledge and training skills of the teachers of visually impaired students.

5. Study terminology

Training needs: A group of changes that is needed to be occurred in the knowledge, skills, attitudes and behaviors of the teacher who works with the visually impaired students as it measured by the tool of the research.
Teacher: The teachers from the schools where the questionnaire were applied participate in the study whether he/she is sighted, poorly sight, or blind.
Visually impaired student: Any student who is visually impaired or blind and registered in the school where the tool was applied.

6. Study limitations

- The results of the study are limited by the subjectivity of the participants.
- The results of the study resemble the teachers of visually impaired students at the governmental and none-governmental schools in Amman province area during the school year 20.15/2016.
- The study is limited to some determinants (Sex, educational level, experience, School level, and teacher's characteristics).

7. Methodology

7.1 Study sample

The study sample consists of 60 participants of the teachers who work for governmental and non- governmental schools in Amman Province area.

Table 1: Sample characteristics

Variable	Group	Frequencies	Percentages
Sex	M	19	31.67
	F	41	68.33
	T	60	100.00
Educational level	Diploma	14	23.33
	Bachelor	37	61.67

	Graduate	9	15.00
	total	60	100.00
Experience	1-3 years	15	25.00
	4-6 years	16	26.67
	More than 6 years	29	48.33
	Total	60	100.00
School level	Primary	41	68.33
	Secondary	19	31.67
	Total	60	100.00
Teacher Characteristics	Sightedness	30	50.00
	Visual impaired	9	15.00
	Blind	21	35.00
	Total	60	100.00

7.2 Research tool

To answer the research questions, the researcher developed a questionnaire consists of 31 statements. To identify the teacher's needs. The researcher followed the next steps:

1. Reviewing the literatures and articles related to the subject (Penny R. Cox et.al, 2001)
2. Taking the opinions of some e experts in this field from public and private sectors of special education and other related fields.
3. The researcher suggested 40 statements related to teacher's needs.
4. A draft of the suggested statements were sent by e-mail to 10 experts in the field of special education and other related fields (i.e psychology, curriculum, medicine) in Jordan universities .

The statements which have been approved by 80% of experts were considered and the ones which weren't approved were cancelled. By this method, nine statements were cancelled. The final number of statements was 31 statements and general information (sex, experience class level, educational level). For the purposes of data collection and analysis the researcher used the Likert scale with four levels (highly need, moderately need, little need, no need) coded 4, 3, 2, 1, 0, respectively.

The tool was validated by a group of experts from Jordanian universities and some experts in the field. For the purpose of validation, the internal consistency of the statements was calculated by Cronbach Alpha (0.93).

7.3 Data collection

After constructing the tool, the schools were assigned as the research purposes and objectives. An informed consent was signed by the participants. 70 copies of the research tool were handed to the teachers within 10 successive days. After 10 days, the copies were

returned. 10 copies of the returned questionnaires were excluded because of incomplete information.

7.4 Data analysis

The researcher used SPSS program (version 21) to analyze the participant's responses (Mean, SD, Sig, T-test., Schiffe's test, Anova, Ancova)

8. Results

As the data were treated, the researcher used the following scale to calculate the means for the questionnaire statements: (2.33 or less) "Little need" (Ln), (2.34-3.66) "Moderate need" Mn, (3.67 or more "Highly need" Hn).

Table 2: Results

Statement no.	Mean	SD	Percentages	Catogory	Rank
Q7	3.52	1.37	87.92	Mn	1
Q29	3.47	1.26	86.67	Mn	2
Q24	3.33	1.47	83.33	Mn	3
Q26	3.17	1.33	79.17	Mn	4
Q23	3.15	1.52	78.75	Mn	5
Q5	3.13	1.52	78.33	Mn	6
Q22	3.12	1.28	77.92	Mn	7
Q30	3.12	1.26	77.92	Mn	8
Q31	3.07	1.23	76.67	Mn	9
Q27	3.00	1.21	75.00	Mn	10
Q3	2.98	1.36	74..58	Mn	11
Q28	2.97	1.21	74.17	Mn	12
Q20	2.95	1.24	73.75	Mn	13
Q1	2.88	1.38	72.08	Mn	14
Q21	2.88	1.35	72.08	Mn	15
Q25	2.88	1.61	72.08	Mn	16
Q4	2.85	1.38	71.25	Mn	17
Q6	2.82	1.37	70.42	Mn	18
Q8	2.77	1.45	69.17	Mn	19
Q9	2.75	1.41	68.75	Mn	20
Q2	2.62	1.53	65.42	Mn	21
Q18	2.55	1.58	63.75	Mn	22
Q14	2.53	1.50	63.33	Mn	23
Q16	2.45	1.32	61.25	Mn	24

Q13	2.42	1.23	60..42	Mn	25
Q19	2.40	1.56	60.00	Mn	26
Q12	2.38	1.44	59.58	Mn	27
Q17	2.35	1.40	58.75	Mn	28
Q11	2.32	1.46	57.92	Mn	29
Q15	2.27	1.34	57.67	Mn	30
Q10	2.07	1.41	51.67	Mn	31
Total	2.81	0.90	70.28	Mn	

As it appears in (Table 2), the statement No (Q7): "**the need for the early intervention programs such as (A VISI**)" occupied the first priority between the statements (i.e Mean =3.52 and the percentage = 87.92%, while the statement no. (Q10) which stated "**the need for training reading and writing with Braille system",** has the lowest rank (i.e Mean=2.81) with percentage of 70.28%. These values indicate the moderate need according to the scale value. Also the total mean in general was (M= 2,81) and the percentage was 70.28.

Table 3

Variable	Test	Value	Sig
Sex	T-Test	0.43	0.673
Educational level	ANOVA	2.46	0.094
experience	ANOVA	0.85	0.434
School level	T-test	0.99	0.322
Characteristics of the teacher	ANOVA	6.37	*0.003

Table (3) shows the differences in training needs among the teachers according the sex, educational level, experience and school level and the characteristics of the teacher. The t-values for needs according to sex, educational level, experience, school level were not significant because the significance value is greater than (0.05), while the F -value for the competencies according to the variable characteristics of the teacher (F=6.37) at the significantly level (0.003) and this value is significant because it is less than 0.05. To differentiate the competencies according to the characteristics of the teacher, Post Hoc Comparison Scheffe's test was used, (Table 4).

Table 4: Post Hoc Comparison Scheffe's test

Mean	Teacher characteristics	Visually impaired	Blind
3.06	Sightedness	-0.13	*0.76
3.19	Visually impaired		0.89
2.30	Blind		

As a result of Post Hoc comparison Scheffe's test for comparing the dimensional to identify the source of differences in needs for the teachers related to their characteristics. The differences were between the blind and the sightedness and it's on the favor of sightedness teacher (Mean = 3.06) and between the blind and partially sight and it is on the favor of partially sightedness (mean= 3.19).

In more details the following tables explain the means, SD and T-values for training needs of the teachers of the visually handicapped learners according to the independent variables (sex, experience, level of education teachers characteristics and school level (Tables 5- 9).

Table 5

Variable	Sex	No	Mean	SD	t-value	*58*sig
total	M	19	2,74	0.54	0.43	0.673
	F	41	2.85	1.03		

As the values of Means, SD and t-value were calculated for the teachers needs and the significance compare with the normal sig. value (0.05) with teachers needs and compare the calculated sig. value (0.673) which is greater than (0,05), so that there is no significant differences related to sex so the sex doesn't affect.

Table 6: The results of Ancova for teachers needs related to educational level

Variable	Source of variance	Total square	Degree of freedom	Mean Square	F-value	Sig
Total	Inter-categories	3.77	2	1.89	2.426	0.094
	Intra-categories	43.70	57	0.77		
	Total	47.48	59			

As we compare the results of Ancova analysis for teachers needs related to educational level ,the significant value attendant the F-value is (0.094) which is greater than (0.05). This means there is no significant differences in teachers needs related to difference in the level of education.

Table 7: The results of ANCOVA analysis for teachers needs related to experience

Variable	Source of variance	Sum square	Degree of freedom	Mean Squares	F-value	Sig
Total	Inter-categories	1.37	2	0.69	0.85	0.434
	Intra-categories	46.11	57	0		
	Total	47.48	59	.81		

The result of ANCOVA analysis for teachers' needs according to the experience and comparing the sig. value attendant to the value F (0.85) which is (0.434). That is greater

than (0.05) which indicated no significant difference in teachers needs related to experience. (Table 7)

Table 8: ANCOVA analysis for teachers' needs according to school level

Variables	School Level	No	Mean	Sd	t-value	sig
Total	Primary	41	2.73	0.91	0.99	0.322
	Secondary	19	2.98	0.88		

As the values of means and SDs, t-values for teachers' needs related to school level were calculated and compared the value of significant attendant t-value (0.99) which is(0.322), that is greater than (0.05). This means there no significant differences related to the school level.

Table 9: Ancova analysis for teachers' needs according the teachers characteristics

Source of variance	Sum of squares	Degree of freedom	Mean square	F- value	Sig.
Inter-categories	8.68	2	4.34	6.37	*0.003
Intra-categories	38.80	57	0.68		
Total	47.48	59			

Table 9 shows the results of ANCOVA analysis for the teachers needs according to the characteristics of the teachers and comparing significant value(0.003) attending the f-value(6.37) with (0.05). This means that there are significant differences in teachers' needs related to the teacher characteristics.

9. Discussion

Concerning the first question which involved the identification the teacher's needs "*What are the needs for the teachers of visual impaired and blind students*?" the study revealed that all the questionnaire statements were answered by **moderat**e, so that, the total mean is (M= 2.81) and the total percentage for the statements were (M = 72.28) and (SD = 0.90). This result give a clear evidence that all the teachers need training and knowledge related to visual impaired and blind, however the statement no. Q7 which states "**I need to know early intervention programs**" has the highest percentage among all the questionnaire statement (87.92%) while the statement (Q10) which states **"I need to know how to read and write by Braille system**" has the lowest percentage (51.6). This result reveals the actual needs for the teachers. This result is applicable with result of (Grooser, 2005) which stated that the workers need knowledge and skills in early intervention, assessment and evaluation of developmental growth for children below thirteen.

As for the second question: "**Is there significance differences in evaluating the teachers' need in related to the study variables?",** the study reveals that there is no significant difference in teachers evaluation for their needs related to sex, educational level, experience and school level. However there is significant differences in teacher responses related to the teachers' characteristics (partially blind, sightedness, blind). The result of the current study is congruent with the study by Al Hadideen (1990) which stated that the age and experience does not play an important role in specifying the teacher's knowledge and training skills.

The researcher predicts the present of statistical significance related to teacher characteristics might be due to the absent of knowledge and training skills as it for the blind and partially sighted teachers who are the target category and some what they own their students characteristics. In other word, they don't need training on Braille system and Tailor or to know the cause of visual impairment. The opposite is said about the sighted teachers who form a different category. They have characteristics dissimilar with the target group, so that they need knowledge and skills more than their counterparts. In other word, the teacher doesn't know who to use Braille system for reading and writing, or the art of orienting and transportation.

Concerning the third question: **"Do the need differ in quantity and quality according to the characteristics of the teachers whether he or she is blind, partially sighted, or sightedness?"** the study results revealed that the differences between the blind and the sightedness and the difference were on flavor of the sightedness. That is the mean was 3.06. As for the blind and partially sighted the significance was on flavor of partially sighted, the mean was the higher (M=3.190).

The researcher give the rational for the results concerning this question, even though both blind and partially sighted represent the visual handicap, the teachers' needs are dissimilar in quality and quantity because the partially sighted teacher has more functional residual vision and he/she used it better than the blind teacher.

10. Recommendations

According to the study results, the researcher recommended the following point to improve the teachers' training needs:

1. Develop special educational system though criteria, standards, and competencies for the teachers of visually impairment students.
2. Correlate between knowledge and practice in preparing special education teachers specialized visual impairments and blind.
3. Develop continuing educational training programs during their work.

4. Follow up the programs objectives in the practicum.
5. The mangers and the Principals of the special education institutions and schools should actually be involved in in-service special education the programs.

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