

Competency Based Teacher Education (CBTE): A Training Module for Improving Knowledge Competencies for Resource Room Teachers in Jordan

Hairul Nizam Ismail

School of Educational Studies, Universiti Sains Malaysia 11800

Penang, Malaysia

E-mail: Hairul@usm.my

Suhail Mahmoud Al-Zoubi

Najran University, K.S.A

E-mail: suhailalzoubi@yahoo.com

Majdoleen Bani Abdel Rahman

Najran University, K.S.A

Ahmad Mohammad Al-Shabatat

School of Educational Studies, Universiti Sains Malaysia

E-mail: shabatat@gmail.com

Abstract

The purpose of this study was to measure the effect of a training module in improving knowledge competencies for resource room teachers in Jordan. The training module consisted of 10 training sessions, covered three domains, namely, planning, instruction and classroom management, and evaluation competencies. The sample of the study consisted of 50 teachers. The participants of the sample were distributed into two equal groups, with 25 teachers in each group. The teachers in the experimental group were attached with the training module for five weeks; whereas the teachers in the control group were exposed for the same period to the conventional training adopted by the Ministry of Education in Jordan. The results of (ANCOVA) revealed that there were statistically significant differences between the means of the two groups' means on the post-achievement test, favoring to the experimental group. Furthermore, results of the experimental group on the achievement test revealed no statistically significant differences across the demographic variables, namely, gender, specialization, qualification, and experience.

Keywords: Competency Based Teacher Education (CBTE), Social Cognitive Learning Theory, Training Module, Knowledge Competencies, Special Education.

1. Introduction

The roots of competency based teacher education (CBTE) were established in behavioral psychology and learning theories (McDonald, 1974; Morgan, 1984). Chesholim and Donald (1985) demonstrate that CBTE in behavioral psychology has two dimensions; (i) the behavioral dimensions which are based on planning of instructional curricula through determining the behavioral objectives that can be shaped and modeling behavior. (ii) The performance dimension which has to do with determining and measuring performance, inclusive of all skills and experience necessary for the achievement of

teachers' professional and behavior duties. The concepts of CBTE have their roots partially in the aspect of social cognitive learning theory that are concerned with modeling and imitative behavior, which are part of behavioral psychology (McDonald, 1974). All competency based programs share four characteristics, according to McDonald, which are: (i) the organization of what is to be learned into independent components; (ii) the precise specification of what is to be learned; (iii) the provision of feedback during learning sequence; and (iv) the insertion of models of the performance to be learned into the learning sequence (in programs applying what has been learned about modeling and imitative behavior). This process is known as operant conditioning and it aims at mastering the desired competencies. CBTE according to leading theories refers to a type of training that focuses on a teacher's acquisition of specific competencies. Among these CBTE features mentioned in the literature are Knowledge, skills, attitudes and values expected of prospective teachers are specified in advance as set of learning objectives (Fraser, 2001).

According to Seng et al., (2003), the social cognitive learning is divided into two types: (i) observational learning which emphasizes learning by watching others; also called modeling; and (ii) cognitive behavior modification (CBM) which utilizes both modeling and self-instructional verbalization. CBM, as a strategy, wears 'two hats': it can be a neobehaviorist strategy, emphasizing social learning; and it can be a metacognitive strategy, emphasizing self-regulation. Modeling behavior may be described as one person's observation of another's behavior and acquiring of that behavior in representational form, without simultaneously performing the responses. Bandura (1977, 1986, 1997) identifies a number of component processes that will determine that outcome of observed behavior involving factors, other than reinforcement. Bandura suggests that there are four sub-processes in the social cognitive learning theory view of observational learning. These component processes are: (1) attention; (2) retention; (3) motor reproduction; and (4) reinforcement and motivation.

Novice teachers often lack the ability to apply practical and reflective decision making to the context of their actual teaching (Babion & Shea, 2005). Special education teachers are required to be generally competent in many areas. Especially important are competencies in interpersonal skills, including counselling and conducting teaching services for students with special needs (Branch, 1990). Special educators encounter many of the same challenges as beginning general education teachers (Boyer & Lee, 2001). Moreover, a good special educator must acquire knowledge and skills needed to help every member of an increasingly diverse students' population achieving higher academic standards (Heng & Tam, 2006). They need for strong teachers preparation programs to provide training in the knowledge, performance and skills necessary for working with students with special needs (Brownell et al., 2005; Jenkins, Pateman, & Black, 2002). Teacher training programs are commonly categorized into two types: pre-service and in-service. Carroll, Jobling and Forline (2003) report that pre-service training program is more academic in nature, provided by formal education institutions and based on specific curricula. Yet, because the in-service training program is a form of training and education of teachers who are already serving the school system, it can offer the training and education needed to under-trained teachers. Different courses offered can be either credit or non-credit, and can be provided through workshops, seminar, conferences, short courses, and long courses (Bagwandeem & Louw, 1993).

According to Fallon and Hammons (1998), most pre-service training programs indicate that special education teachers are not required to take training courses in either counselling nor interpersonal skills. Pre-service training program also lacks modern educational strategies such as the use of modern educational aids and instructional design (Collins & White, 2001). Inadequate field-based experience in pre-service training program fail to equip teachers with the practical skills necessary for effective teaching these students (Carroll, Jobling & Forline, 2003). Furthermore, Bouck (2005) mentions that many pre-service programs were prepared teachers to only teach particular age group, particular disabilities, and particular content areas.

Jones and Black (1995) suggest that universities should offer more practicum courses that prepare teachers to work with students with special needs. Thus, special education teacher preparation

programs depend on field training, which offers an extra opportunity for the trainees to acquire various skills. They need pre-service training strategies that depend on continuity in light of the new roles for teachers (Cavkaytar, 2006). The need for skilled and qualified staff originates from the fact that special education teachers are seen as among the most important elements in the teaching and learning process (Frieman, 2001; Russel et al., 1992). It is apparently very important that these teachers should possess the competencies, abilities, knowledge, and skills necessary to carry out the teaching process in an effective and efficient way (Rosenberg, Sindela & Hardman, 2004). In this case, in-service training programs are necessary in order to improve skills, knowledge, and performance competencies of teachers (Fitch & Kopp, 1990; Renitta et al., 2004).

On the other hand, Houston (cited in Saeed & Mahmood, 2002) and Clark (2000) identify and categorize Competency-Based Teacher Education (CBTE) into five stages: (i) cognitive competencies, which relate to knowledge and intellectual skills and abilities that are expected of the learners; (ii) performance competencies, wherein the learner demonstrates that he or she can do something; (iii) consequence competencies, to bring change to others; (iv) affective competencies, which are expected attitude and values that tend to resist the specificity and are more difficult to assess than the first three stages; and (v) exploratory competencies, which include activities that provide opportunities for teachers to learn about teaching.

Furthermore, Lerner (2003) argues that the teachers in the resource room are in need of two kinds of competencies: (i) competencies in knowledge and skills, which include the professional knowledge base that learning disabilities educators want, and (ii) competencies in human relationship abilities, such as cooperation, which require teachers to be helpful, deferential, empathic, and open. Norlander, Shaw, and McGuire (1990) designed a survey to identify the needed competencies of both administrative and direct service personnel in directing and implementing post-secondary support programs for students with learning disabilities. The competency areas perceived as most desired by learning specialists were assessment skills, cognitive intervention, and instructional skills, while administrative personnel rated leadership skills as most desired (Boritz & Carnaghan, 2003). However, the National Joint Committee on Learning Disabilities (NJCLD, 1998) suggests standard based on competencies were required for all teachers and that comprehensive transdisciplinary preparation programs were needed to most effectively meet the needs of students with and without disabilities and to help teachers to work with students with learning disabilities.

Generally speaking, special educators fill a wide range of very important roles in special education programs. As a result, if they are going to be effective in their roles, special educators need to have an array of some very important skills (Wigle & Wilcox, 2002). The issue of improving strategies used for teaching children with special needs has not received the attention it deserves (Duchnowski et al., 2006). However, special education programs in Jordan have largely developed during the past few years. This development was obvious in establishing special schools and special education centers that provide special services to children with special needs, in addition to the development that accompanied teacher-training programs for special education. Nevertheless, the development that the special education field in Jordan has witnessed was quantitative more than qualitative (Al Nabteety & Jaber, 1996). The special education training programs in Jordan is an over-emphasis on cognitive acquisition and theoretical issues. Although this has been indicated as a limitation in Western universities as well it is more pronounced in Jordan (Al-Khatib, 2007). On the other hand, Al-Weher and Abu-Jaber (2007) recommend continuing in pre-service teachers training programs in Jordan, but with some modifications of its components to include a greater percentage of academic and practicum courses. However, there are no indications of any in-service training programs being designed based on teachers' training needs for special education resource room teachers in Jordan (Al-Khatib, 2004).

2. Previous Research

Hadidi (1993) examined the effectiveness of an in-service training program in Jordan. The results indicated that the most element necessary for effective in-service training program are not taken into account. Al- Ajloni (2006) conducted a study that was aimed at constructing a training program for developing vocational competencies for trainers of vocational Training Corporation. The results revealed that the training program was high 4.62 out of 5, and it could be adopted according to the specialist's perspectives as a training program for vocational trainers in Jordan. Al-Sayyed (2005) constructed a training program based on educational competencies for prevocational education teachers (PET) in the basic education cycle, and an assessment of its effectiveness in improving these competencies. The results of the three- way ANOVA and T-test analysis revealed that there were significant statistical differences in the degree of knowledge and performance competencies for PET in the basic education cycle due to the training program.

Hoogveld et al., (2005) conducted a study to determine the differential effects on the design of learning tasks for Competency-Based Teacher Education (CBTE) of a teacher training with a classical approach. The result shows that the classic condition performed significantly better than the alternative condition. Patel and Khamis (2005) presented an augmentative and alternative communication (AAC). The training program was given to 20 special education teachers in a Palestinian Arab society in Israel. The training program contained of educational workshops interleaved with on-site supervision. Instructional aims integrated creating awareness, imparting knowledge, and assisting teachers to increase and use AAC within their classrooms. Teachers' responses revealed that training program helped them to address barriers to AAC intervention.

Al Khatib (2007) evaluated the impact of a training program on Jordanian classroom teachers' knowledge of the characteristics and needs of students with learning disabilities. The study also investigated whether such training influenced teachers' acceptance of including these students into their classroom. 60 teachers were divided into two equal groups with 30 teachers in each. One group was randomly chosen to be experimental and the other as the control group. Two instruments were developed to assess teachers' knowledge of learning disabilities and a survey of teacher acceptance of inclusion of students with learning disabilities. These instruments were applied to the two groups as pretest and posttest. The researcher constructed a training program based on increasing teachers' knowledge of the characteristics and needs of students with learning disabilities. This program consisted of five training units. The experimental group was enrolled into the training program for 6-weeks. The results revealed that the training program had significant effects on both teachers' knowledge of the characteristics and needs of students with learning disabilities and their acceptance of including these students into their classroom.

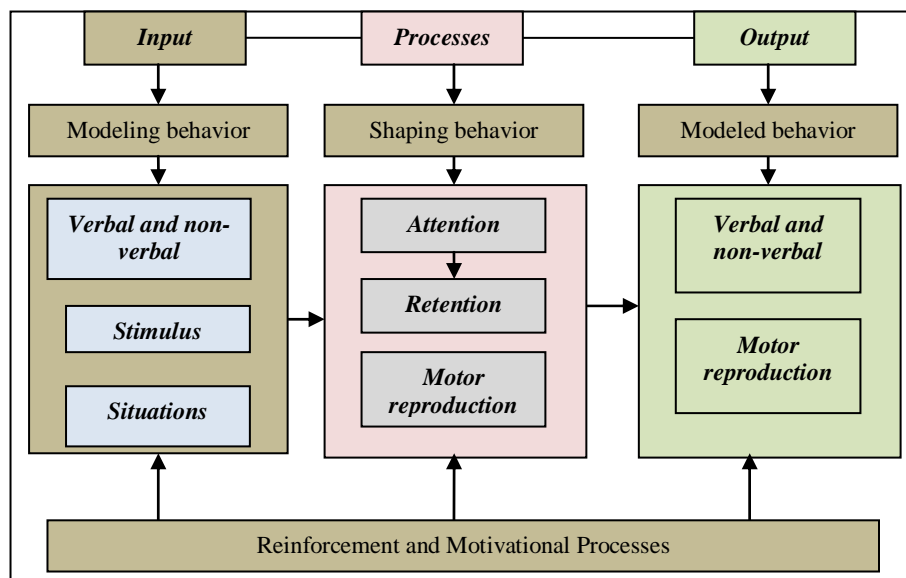
3. Present Study

The lack of a deep qualitative training module drove this research to design, implement, and evaluate a training module using Cognitive behavior modification (CBM) which is consistent with the competency based teacher education (CBTE). This technique was extracted from Bandura's Social Cognitive Learning Theory. The theoretical base for this study comes from Bandura's theory (1977, 1986, 1997). According to Bandura's theory, the process whereby the information we glean from observing others influence our behavior. According to Bandura (cited in Hartjen, 1974), the observational learning theory proposes that discriminative observation is a skill which is prerequisite to acquiring matching behavior of an observed model.

Figure (1) shows the sub-processes involved in the observational learning theory: attention, retention, reproduction, and reinforcement and motivational processes. The first, attention, requires the individual to extract relevant information from the model. What is obtained from the observed demonstration depends upon observer characteristics (e.g., cognitive capabilities, arousal level, expectations) and on the characteristics of the modeled event (e.g., complexity, saliency, affective

valence). The second sub-process, retention, includes the observer’s ability to encode and retain what has been observed. Encoding refers to the transformation of modeled information into visual or verbal abstract representations. A reminder of the coded information may be accomplished via cognitive rehearsals (Bandura, 1997). Motor rehearsal could also be used to refine the cognitive representations (Carroll & Bandura, 1985). The third sub-process, ability, allows the symbolic/cognitive (i.e., visual or verbal) representations to be translated into actions or behaviors. The final sub-process refers to motivational processes. These may involve external, vicarious, and self-reinforcements and motivational. Individuals are more likely to execute a modeled behavior if they are adequately motivated and the motivation is goal directed.

Figure 1: Bandura’s Social Cognitive Learning Theory



Even though Bandura’s (1986, 1997) theory was originally developed to explain the acquisition of social behaviors; research has shown the sub-process of attention via the manipulation of the model and motor demonstration characteristics to be important. Indeed, model skill level, coping and mastery models, model status, model similarity, self-modeling, practice variables, and feedback have been shown to influence attention and, therefore, motor behaviors. The present study represents a systematic effort to apply the theory of observational learning to training of resource room teachers in order that may learn to be discriminating in their observation teacher models. Thus, this study aims at constructing and measuring the effects of a training module based on instructional competencies for resource room teachers.

4. Research Hypotheses

For examining the effects of the training module in improving resource room teachers’ competencies, we test the following hypotheses:

- H1:** There are statistically significant differences in mean scores of knowledge competencies for the control and experimental groups that can be attributed to the training module.
- H2:** There are statistically significant differences in mean scores of knowledge competencies for the control and experimental groups that can be attributed to gender, qualification, specialization and teaching experience?

5. Research Method

For the purpose of examining the research hypotheses, data were collected around the study sample (N=50), coded, and analyzed using Statistical Package for Social Science (SPSS) version 16.0. Since this research used an instrument two times as pre-test and post-test, an analysis of covariance (ANCOVA) was used to control the effects of the pre-test on the post-test. According to Wicherts (2005), ANCOVA is used to adjust the dependent variable for pre-existing group differences.

5.1. Research Design

The nonequivalent (pretest and posttest) control-group design, which is a popular approach to the quasi-experimental research, is used in this study. This design is used to measure the effects of the independent variables on the dependent variables.

5.2. Sample

The population of the study consisted of all female and male teachers working in the resource rooms in Irbid governorate in Jordan. They were distributed within seven Educational Directorates. The sample of the study consisted of fifty (N= 50) male and female teachers working in the resource rooms in Irbid governorate. All fifty teachers were chosen according to the stratified random sampling. Therefore, the sample in this study was divided into two equal groups with 25 teachers in each group. After these procedures, one group was randomly chosen to be the experimental and the second as the control group. The resource room teachers in the experimental group were meant to be attached to the training module for five weeks; while the teachers in the control group were meant to be exposed to the conventional training program which adopted by Jordanian Ministry of Education.

5.3. Measurement

An achievement test was constructed to measure the level of knowledge competencies among resource room teachers in terms of knowledge competencies. The researcher has distributed the achievement test in its primary form to a group of experts working in the field of special education; several educational supervisors and some of resource room teachers in order to revise the tests' content, language (the clarity of the items), and the appropriateness of the alternatives. Therefore, the number of achievement test consists of (50) multiple-choice questions and they are distributed three domains: planning, instruction and classroom management, and evaluation competencies. One mark was given to every correct answer on the achievement test and a zero mark for any wrong answer. For measuring the test reliability using test-retest technique, it was implemented on 10 teachers. Then, the test was implemented again after two weeks on the same individuals. The Person coefficient correlation between the two implementations was (0.82). This value is considered as a good pointer for the test reliability. In this study, internal reliability is also calculated using KR-20 formula. This formula measures the consistency coefficient between the items of the achievement test, where the reliability factor for the planning was (0.80), instruction and classroom management which was (0.76), and for the evaluation, which was (0.78). This is an acceptable pointer for the reliability of the test and is enough for the purpose of the study. The achievement test was applied to the control and experimental groups as pretest and posttest.

5.4. The Training Module

The training module was developed in order to upgrade skills, knowledge, and understanding and enhance the instructional competencies of resource room teacher in the field of planning, instruction and classroom management, and evaluation competencies. This will be positively reflected on the students with learning disabilities in the resource room. In order to prepare the training program module, the researcher reviewed the previous literature related to instructional competencies and the

resources related to training. In addition, studies related to the instructional competencies and the preparation of training programs were also reviewed. The researchers also reviewed the plans and the programs of the training department put forward by the Jordanian Ministry of Education in order to prepare and train new in-service teachers on the competencies and skills in all educational fields. The training program was conducted with the participants of the study for five (5) weeks of the period between July 5 and August 13, 2006. The training was conducted for two days a week, for a period of three hours a day with a half hour break in between.

This training program module consists of three domains: (1) the planning for instruction competency. This domain consists of three training units: instructional planning, Instructional objectives, and the individualized educational program; (2) the instructional and classroom management competency. This domain consists of five training units which are classroom management; Instructional aids used with students with learning disabilities, Instructional strategies in special education, cooperative learning and motivation; and (3) the evaluation competency. This domain consists of two training units: evaluation in special education and formal and informal evaluation in special education. In order to establish the validity of the training program as a mean of developing the instructional competencies for classroom teachers, the module was presented in its complete form to a group of Jordan Universities Professors who are specialized in per-services teachers' education programs. The module was also being presented to a group of Educational Supervisors who are specialized in in-services teachers' education programs. The referees were requested to determine the comprehensiveness of the training program in the terms of the unification of all its elements and the sufficiency for each lesson and its time. In order for the training module to achieve its objectives, teachers (trainees) were asked to observe the following activities before each session:

1. Reading the title of each session.
2. Reading the general and the specific objectives of the session.
3. Answering the pretest questions prior to reading the instructional material of the session.
4. Answering the posttest questions after reading the instructional material of the session, they were the same as the pretest questions.
5. Self correcting the posttest with the help of the answer key, which was available at the end of each session.
6. Restudying the instructional materials at home in case the answer to the questions was less than 80% correct.

5.5. Research Procedures

The following steps and procedures would be followed throughout this study:

1. Preparing an achievement test contained of 50 questions of multiple choices to measure the knowledge competencies for resource room teachers in the area of planning, instruction and classroom management, and evaluation.
2. Verifying the validity and reliability of the instrument.
3. Taking the approval from the Jordanian Ministry of Education to conduct this study.
4. Taking the approval of Educational Directorates in Irbid Governorates to implement the instrument on the resource room teachers.
5. Implementing the pre-achievement test on the study's participants (experimental and control groups).
6. Constructing a training module based on instructional competencies.
7. Establishing the face validity of the training module through presenting it to a number of referees and experts in field of teachers' education.
8. Implementing the training module on the experimental group for five weeks (two days a week, for a period of three hours a day).

9. Implementing the conventional training program which adopted by The Jordanian Ministry of Education on the control group for five weeks (two days a week, for a period of three hours a day).
10. Implementing the post-achievement test on the participants (experimental and control groups).

6. Results

Table (1) presents overall means, standard deviations, and adjusted means of the pre and post-achievement test for the control and the experimental groups. This shows that there is a difference in the means of the two groups between the pretest and posttest on the achievement test.

Table 1: Descriptive Statistics of the control and experimental groups

Groups	N	Pretest		Posttest		Adj. Means
		M	SD	M	SD	
Control Group	25	30.68	3.388	33.24	3.41	33.15 ^a
Experimental Group	25	27.76	4.639	42.16	2.32	42.24 ^a

Note: a: Covariates appearing in the model are evaluated at the following values: pre-AT= 29.22.

For the control group an adjusted mean of (M= 33.15) with standard deviation of (SD= 3.41) while the experimental group an adjusted mean of (M= 42.24) with standard deviation of (SD= 2.32). In order to examine any significant differences at $p < .05$ between the control and the experimental groups on the posttest, the analysis of covariance (ANCOVA) is conducted. Table (2) illustrates the results of analysis of covariance (ANCOVA) technique between the adjusted mean scores on the posttest.

Table 2: Results summary of analysis of covariance (ANCOVA)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Pre-achievement test	2.77	49	2.77	.322	.573
Post-achievement test	910.91	1	910.91	105.67	.000*

For testing the hypothesis H1, an analysis of covariance (ANCOVA) was carried out to investigate the differences between the two groups on the achievement test as shown in Table (2). For the pre-achievement test, $F(1, 49) = 0.322$, at $p = 0.573$ ($p > 0.05$). The result showed that there were no statistically significant differences between the adjusted means of the control and the adjusted means of the experimental groups on the pre-achievement test; this indicates that the groups were equivalent according to the adjusted means. For the post achievement test, the result shows that there were statistically significant differences between the adjusted mean scores of the control and the experimental groups on the post-achievement test in favor of the experimental group attributed to the training module (the treatment) as indicated by $F(1, 49) = 105.67$, at $p = 0.000$ ($p < 0.05$). Thus, the Hypothesis H1 was accepted.

Furthermore, Table (3) shows the means of the respondents for the post achievement test according to their demographics. For the females group reported a mean of (M = 42.33) with standard deviation (SD= 2.386), the males group reported a mean of (M= 42.00) with standard deviation (SD=2.345), the others specializations group reported a mean of (M= 42.33) with standard deviation (SD=2.225), the specialization of special education group reported a mean of (M= 41.90)

Table 3: Means and standard deviations of the experimental group on the post-AT according to the sample demographics

Demographic Variables	Levels	N	Mean	SD
Gender	Male	13	42.00	2.345
	Female	12	42.33	2.386
	Total	25	42.16	2.321
Specialization	Special Education	10	41.90	2.558
	Others	15	42.33	2.225
	Total	25	42.16	2.321
Qualification	Bachelor	12	42.33	2.839
	High Diploma & more	13	42.00	1.825
	Total	25	42.16	2.321
Experience	Less than 5 years	13	42.84	2.303
	More than 5 years	12	41.41	2.193
	Total	25	42.16	2.321

with standard deviation (SD= 2.558), the bachelor group reported a mean of (M= 42.33) with standard deviation (SD=2.839), the high diploma and more group reported a mean of (M= 42.00) with standard deviation (SD=1.825), the less than 5 years of experience group reported a mean of (M= 42.84) with standard deviation (SD=2.303), and the more than 5 years of experience group reported a mean of (M= 41.41) with standard deviation (SD=2.193).

For testing the hypothesis H2, four-way analysis of variance (ANOVA) was carried out to investigate the differences among the respondents of the experimental group that can be attributed to the demographic variables (gender, specialization, qualification, and experience).

Table 4: Summary of four-way (ANOVA) results by the post-AT of the experimental group according to the demographic variables

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Gender	4.276	1	4.276	.765	.392
Specialization	.891	1	.891	.159	.694
Qualification	1.877	1	1.877	.336	.569
Experience	14.675	1	14.675	2.624	.121
Error	111.845	20	5.592		
Corrected Total	133.555	24			

For the gender variable, an ANOVA between the means gave $F(1, 24) = 0.765$ at $p = 0.392$, the specialization variable $F(1, 24) = 0.159$ at $p = 0.694$ ($p > 0.05$), the qualification variable $F(1, 24) = 0.336$, at $p = 0.569$ ($p > 0.05$), the experience variable $F(1, 24) = 2.624$ at $p = 0.121$ ($p > 0.05$). The results indicated that there were no statistically significant differences ($p > 0.05$) across the demographic variables on the post achievement test as shown in Table (4). Based on these results, the hypothesis H2 was rejected.

7. Discussion

The analysis of the data in Table (2) showed that there are statistically significant differences at $p < .05$ between the adjusted means for the control and the experimental groups in the level of knowledge of the instructional competencies on the post- achievement test. The differences are in favor of the teachers in the experimental group who were attached to the training module. These differences are attributed to the effect of the training module.

The results can also be attributed to the fact that the training module had included activities and experiences that were related to competency based teacher education (CBTE), which provided the

teachers with the appropriate opportunities to develop their level of knowledge. In addition, the training module's content and structure were designed and developed in a progressive way and up to certain standards employing Cognitive Social Learning Theory' techniques such as the Cognitive Behavioural Modification (CBM). Furthermore, the discussions and debates between the teachers (trainees) and the researchers (trainer) have increased the level of interactions between the trainees and the trainer and thus have helped the teachers increase their knowledge and develop their instructional competencies. The superiority for the training module over the conventional training methods used by the Ministry of Education was due to the clear and appropriate objectives, content and activities of the training module which were according to the needs and attitudes of the trainees. The training module has provided many opportunities for cooperation between the teachers themselves, gave freedom of movement during training, and gave selection activity to choose from. In addition, the researchers' roles during the training program were apparent in delivering the instructions, asking probing and leading questions, and reinforcing the content using other related scientific resources such as digital programs and videotapes.

The fact that there are no statistically significant differences at $p < .05$ in the means of the teachers knowledge competencies according to their gender, specialization, qualification, and experience might be attributed to the fact that all teachers were influenced by the same variables. They were all asked to adhere to planning for instruction by preparing an individualized educational program for each learner with learning disabilities in the resource room. Also, they all were asked to adhere to using the instructional strategies, methodologies, and evaluation tool appropriate for learners with learning disabilities. It is also attributed to the fact that all special education teachers were subjected to the same pre-service and in-service training programs regardless of the variables of gender, specialization, qualification or experience. It is also attributed to the teachers' adherence to the plans of the Ministry of Education regarding the resource rooms and attending training courses designed for them regardless of the demographic variables. It can be attributed to the similarity between the teachers willing to acquire the knowledge competencies and the teachers with various teaching experiences. Further, all the teachers, regardless of their demographic background, have attended the same preparation programs and the training courses on the basic instructional skills provided by the Jordanian Ministry of Education. All these factors help providing the same educational programs to all teachers regardless of their gender, specialization, qualification, and teaching experience. The results of the study are consistent with Hadidi (1993) who found no significant difference across the demographic variables on the training modules.

8. Summary and Concluding Remarks

The main purposes of this study were to construct and measure the effects of a training module in improving knowledge competencies, namely, planning, instruction and classroom management, and evaluation competencies for the resource room teachers in Jordan. This study found that the training module had improved the knowledge competencies of resource room teachers. The training module had great effects in developing these competencies due to numerous, techniques, aids, and live instructional models included in the training program. It is inferred that observational learning or modeling process has played a vital role in helping the resource room teacher acquire these instructional competencies in addition to the transferring of what the trainees have learned; thus giving us the indication that modeling or observational learning concept is very important in the pre-service and in-service training programs. This claim was also mentioned in Bahn (2001), and Hars and Calmels (2007). Based on these findings, it can also be argued that in-service training programs play an important role in developing instructional competencies. The Cognitive Behavioural Modification (CBM) according to competency based teacher education (CBTE) would be an effective tool in developing and enhancing new instructional techniques and strategies for special education teachers. The teachers transfer what they have learned to the resource room context in order to help students

with learning disabilities acquire new learning strategies. These strategies help improving the skills of reading, writing and arithmetic. Consequently, attention must be paid to the in-service training programs since they benefit both the teachers and the learners.

Finally, it can be concluded that the training module the researchers have designed could be used by the Jordanian Ministry of Education to train special education teachers. The MOE can also plan training programs taking into consideration the training needs of in-service teachers. For example, in the USA, the legislations regarding students with learning disabilities, (P.L.94-142) require each state to put forward a comprehensive and organized plan to train teachers of students with learning disabilities, whether in private or public schools. In addition each of the Offices of Special Education and the National Advisory Committee of the Handicapped consider in-service training programs as a national need with priority (Hadidi, 1990).

Acknowledgement

We would like to thank the administration officers at the Jordanian Ministry of Education for giving us facilities to conduct this research and to thank Universiti Sains Malaysia for funding this research. We also thank Jordanian resource room teachers in Irbid directorate.

References

- [1] Al Khatib, J. (2007). The impact of training on general education teachers' knowledge and acceptance of inclusion of students with learning disabilities in Jordan. *Insights on Learning Disabilities*, 4, 13-21.
- [2] Al Nabteety, K., & Jaber, F. (1996). Ministry of Education services for students with learning disabilities, *Journal of Teacher's Message*, 37, 179.
- [3] Al-Ajlani, A. (2006). Constructing a training program for developing vocational competencies for the trainers of vocational training corporation in Jordan in relation to the trainers acquisition of these competencies and its applicable important from the specialists perspectives. *Unpublished doctoral dissertation*, Amman Arab University for graduate studies. Amman. (In Arabic)
- [4] Al-Sayyed, M. (2005). Constructing a training program based on competencies for vocational educational teachers in the basic education cycle. *Unpublished doctoral dissertation*. Amman: Amman Arab University for Graduate studies. (In Arabic)
- [5] Al-Weher, M., & Abu-Jaber. A. (2007). *The effectiveness of teachers preparation programs in Jordan*. In Tony. R and Richard. B (Eds). Hand book of teacher education. Netherlands: Springer.
- [6] Babione, C & Shea, C. (2005). Special education mentoring within the context of rural schools, *Aural Special Education Quarterly*, 24, 3-10.
- [7] Bagwandeem, D., & Louw, W. (1993). *Theory and practice of in-service education and training for teachers in South Africa*. Pretoria: Schaik Publishers.
- [8] Bahn, D. (2001). *Social learning theory: its application in the context of nurse education*. Nurse education Today, 21, 110-117.
- [9] Bandura, A. (1977). *Social Learning Theory*. Englewood Cliffs: Prentice-Hall Inc.
- [10] Bandura, A. (1986). *Social foundations of thought and action. A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall Inc.
- [11] Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman and Company.
- [12] Boritz, J., & Carnaghan, C. (2003). *Competency-based education and assessment for the accounting profession*. Canadian Accounting Perspectives, 2, 7-42.
- [13] Bouck, E. (2005). Secondary special educators: perspectives of preservice preparation and satisfaction. *Teacher Education and Special Education*, 28, 125-139.

- [14] Boyer, L., & Lee, C. (2001). Converting challenge to success: Supporting a new teacher of students with autism. *Journal of Special Education*, 35, 75-83.
- [15] Branch, R. (1990). Some thoughts on improving instruction. *Instructional Development*, 1, 2-7.
- [16] Brownell, M., Ross, D., Colon, E., & McCallum, C. (2005). Critical features of special education teacher preparation. *The Journal of Special Education*, 38, 242-252.
- [17] Carroll, A., & Jobling, A. (2003). The impact of teacher training in special education on attitudes of Australian pre-service general educators towards people with disabilities. *Teacher Education Quarterly*, 30, 65-79.
- [18] Cavkaytar, A. (2006). Teacher training in special education in Turkey. *The Turkish Online Journal of Educational Technology*, 5, 41-45.
- [19] Chesholim, M., & Donald, E. (1985). *Media personal in education: A competency approach*. Englewood Cliffs: Prentice-Hall.
- [20] Clark, R. (2000). Building expertise: Cognitive methods for training program. *Performance Improvement Journal*, 39, 43-44.
- [21] Collins, L., & White, G. (2001). Leading inclusive program for all special education students: a pre-service training program for principals. *ERIC Document Reproduction Services No.: ED 456604*.
- [22] Duchnowski, A., Kutash, K., Sheffield, S., & Vaughn, B. (2006). Increasing the use of evidence-based strategies by special education teachers: A collaborative approach. *Teaching and Teacher Education*, 22, 838-847.
- [23] Fallon, M., & Hammons, J. (1998). Training rural special educators to transition to the workplace: Lessons for small teacher education programs. *ERIC Document Reproduction Services No.: ED417152*.
- [24] Fitich, M., & Kopp, O (1990). *Staff development for the practitioner: planning, procedures, practice, and assessment*. Springfield: Charles Thomas.
- [25] Fraser, W. (2001). Let's revisit competence based teacher education. *Educare: Journal of the Faculty of Education*, 30, 50-72.
- [26] Frieman, B. (2001). *What teachers need to know about children at risk?* New York: McGraw-Hill Companies.
- [27] Hadidi, M. (1993). Effectiveness of in-service training programs provided for special education teachers in Jordan. *Dirasat*, 20, 170-194. (in Arabic)
- [28] Hars, M., & Calmels, C. (2007). Observation of elite gymnastic performance: Processes and perceived function of observation. *Psychology of Sport and Exercise*, 8, 337-354.
- [29] Heng, M., & Tam, K. (2006). Special education in general teacher education programs in Singapore. *Teacher Education and Special Education*, 29, 149-156.
- [30] Hoogveld, A., Pass, F., & Jochems, W. (2005). Training education teachers for instructional designs of competency-based education: Product-oriented versus process-oriented worked examples. *Teaching and Teacher Education*, 21, 287-297.
- [31] Jenkins, A., Pateman, B., & Black, R. (2002). Partnerships for dual preparation in elementary, secondary, and special education programs. *Remedial and special Education*, 23, 359-371.
- [32] Jones, K., & Black, R. (1995). Teacher preparation for diversity: A national study of certification requirements. *Journal of Vocational and Technical Education*, 12, 42-52.
- [33] Lerner, J. (2003). *Learning disabilities theories, diagnosis, and teaching strategies*. (9th Ed.) Boston: Houghton Mifflin.
- [34] McDonald, F. (1974). The Rational for Competency Based program. In W. Houston (Eds). *Exploring Competency- Based Education*. Berkeley: McCutchan.
- [35] Morgan, S. (1984). "A Nation at risk!" Performance-based teacher education did not work. *College Student Journal*, 18,198-203.

- [36] National Joint Committee on Learning Disabilities. (1998). Learning disabilities: Pre-service preparation of general and special education teachers. *Learning Disabilities Quarterly*, 21, 248-251.
- [37] Norlander, K., Shaw, S., & McGuire, J. (1990). Competencies of postsecondary education personal serving students with learning disabilities. *Journal of Learning Disabilities*, 23, 426-432.
- [38] Patel, R., & Khamis, R. (2005). An AAC training program for special education teachers: A case study of Palestinian Arab teachers in Israel. *Augmentative and Alternative communication*, 21, 205-217.
- [39] Renitta, G., Jerry, A., & Anne, W. (2004). A training program for minority educators in special education and educational leadership. *College Student Journal*, 38, 1-15.
- [40] Rosenberg, M., Sindelar, P., & Hardman, M. (2004). Preparing highly qualified teachers for students with emotional or behavioral disorders. *Behavioral Disorders*, 29, 266.
- [41] Russel, S., Williams, E., & Gold, V. (1992). Rural America Institute for Special Educators: A collaborative preservice teachers training programs for rural special Education. *ERIC Document Reproduction Services No.: ED356586*.
- [42] Saeed, M., & Mhamood, K. (2002). Assessing competency of Pakistan primary school teachers in mathematics, science and pedagogy. *The international Journal of Educational Management*, 16, 190-195.
- [43] Seng, T., Parsons, R., Hinson, S., & Sardo-Brown, D. (2003). Educational psychological: a practitioner researcher approach (An Asian Edition). Australia: Thomson.
- [44] Wicherts, J. M. (2005). Stereotype threat research and the assumptions underlying analysis of covariance. *American Psychologist*, 60, 267-269.
- [45] Wigle, S., & Wilcox, D. (2002). Special education directors and their competencies on CEC-identify skills. *Education*, 123, 276-288.