



UNIVERSITI SAINS MALAYSIA

UNIVERSITY OF SCIENCE MALAYSIA

**THE EFFECTS OF A TRAINING PROGRAM IN IMPROVING
INSTRUCTIONAL COMPETENCIES FOR RESOURCE
ROOM TEACHERS IN JORDAN**

by

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degree of Doctor of Philosophy in Special Education**

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Dedication

I dedicate this humble work to the springs of loyalty, affection and virtue, my father and mother; to my dear brothers and my sister, who spared no effort in helping me during my school years; to my loyal companion, my wife, Majdoleen, who has always been there for me; to my dear daughters Rahiq, Dunia, and Ru'a.

Suhail Mahmoud Al-Zoubi

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LIST OF ABBREVIATIONS

CBTE	Competency-Based Teacher Education
PBTE	Performance- Based Teacher Educational
UNRWA	United Nations Relief and work Agency for Refugees
UNESCO	United Nation Education, Scientific and Culture Organization
UNICEF	United Nations Children's Fund
GUVA	General Union of Voluntary Associations
LD	Learning Disabilities
PSTP	Pre-service training program
ISTP	in-service training program
E/BD	emotional and behavioral disorders
DLD	Division for Learning Disabilities
CEC	Council for Exceptional Children
CBM	Cognitive behavior modification
IEP	Individualized Educational Program
IIP	Individualized Instructional Plan
NJCLD	National Joint Committee on Learning Disabilities
VTC	vocational training corporation
PET	prevocational education teachers
AAC	Augmentative and Alternative Communication
MHER	Ministry of Higher Education and Research
KR-20	The Kuder-Richardson Formula 20
NECGD	nonequivalent control group design
pre-AT	pre-achievement test
pre-OS	pre-observation scale
post-AT	post- achievement test
post-OS	post- observation scale
MOE	Ministry of Education

**THE EFFECTS OF A TRAINING PROGRAM IN IMPROVING INSTRUCTIONAL
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ABSTRACT

The purposes of this study were to construct a training program based on instructional competencies and to measure its effects in improving these competencies for special education resource room teachers in Jordan. The researcher constructed the training program module. The module, which consisted of eleven training units, covered four domains: planning, instruction and classroom management, evaluation, and personal and professional competencies. Three instruments were developed to measure the instructional competencies, namely, an achievement test, a classroom observation scale, and interviews protocol. These instruments were applied to the sample of the study as both pretest and posttest.

The population of the study consisted of 87 resource room teachers working in seven educational directorates within Irbid governorate, Jordan. The sample of the study consisted of 50 male and female teachers chosen according to the stratified random sampling procedures. The participants of the sample were distributed into two equal groups, with 25 teachers in each group. After that, one group was randomly chosen to be the experimental group, and the other one to be the control group. The teachers in the experimental group were attached with the training program module for five weeks; whereas the teachers in the control group were exposed for the same period to the conventional training program adopted

and conducted by the Jordanian Ministry of Education. The nonequivalent (pretest and posttest) control group design, which is a popular approach to the quasi-experimental statistical research, was used in the study.

This study used both quantitative and qualitative methods. The quantitative analyses were carried out using analysis of covariance (ANCOVA) to measure the effects of the training program in improving knowledge and performance competencies. The results revealed that there were statistically significant differences at the level $p < .05$ between the means of the two groups' performance on the post-achievement test and the post-observation scale, favoring to the experimental group. The 4-way analysis of variance (ANOVA) showed no statistically significant differences at the level $p < .05$ between the means of the two groups' performance on post-achievement test and post-observation scale attributed to gender, specialization, qualification, and teaching experience.

On the other hand, the results of qualitative data analysis, that utilized classroom observation and interview methods held with the two groups, also showed significantly better performances of the experimental group teachers than of the control group in improving the measured instructional competencies.

Keywords: in-service training program, resource rooms, instructional competencies, learning disabilities, and special education teachers.

الملخص

أثر برنامج تدريبي في تحسين الكفايات التعليمية لمعلمي غرفة المصادر في الأردن

سهيل محمود أحمد الزعبي

قدمت هذه الأطروحة استكمالاً لمتطلبات الحصول على درجة الدكتوراه في الفلسفة في تخصص التربية الخاصة من جامعة العلوم الماليزية (٢٠٠٧م)

هدفت الدراسة الحالية إلى بناء برنامج تدريبي قائم على الكفايات التعليمية لمعلمي غرف مصادر صعوبات التعلم في الأردن، وكذلك قياس أثره في تحسين هذه الكفايات. ولتحقيق أهداف الدراسة قام الباحث ببناء برنامج تدريبي تكون من (١١) وحدة تدريبية وزع على أربعة مجالات هي: كفايات التخطيط، والتعليم وإدارة الصف، والتقويم، والكفايات الشخصية والمهنية. ولقياس أثر البرنامج التدريبي في تحسين الكفايات التعليمية قام الباحث بتطوير ثلاثة أدوات هي: اختبار تحصيلي من نوع اختيار من متعدد، ومقياس الملاحظة الصفي، ودليل المقابلة، تم تطبيق هذه الأدوات على أفراد عينة الدراسة كاختبارات قبلية وبعديّة.

تكونت عينة الدراسة من (٥٠) معلماً ومعلمة يدرسون في غرف المصادر موزعين على سبعة مديريات للتربية والتعليم تتبع محافظة اربد تم اختيار أفراد عينة الدراسة بالطريقة العشوائية التطبيقية. تم تقسيم عينة الدراسة إلى مجموعتين بحيث اشتملت كل مجموعة على ٢٥ معلم ومعلمة. بعد ذلك تم اختيار إحدى المجموعتين لتكون مجموعة ضابطة والثانية لتكون مجموعة تجريبية وذلك بطريقة عشوائية. تم إلحاق أفراد المجموعة التجريبية بالبرنامج التدريبي المقترح لمدة خمسة أسابيع بينما التحق أفراد المجموعة الضابطة بالبرنامج التدريبي الذي تتبناه وزارة التربية والتعليم الأردنية في تدريب المعلمين بنفس المدة. اشتملت هذه الدراسة على بيانات كمية ونوعية، وتحليل البيانات الكمية فقد تم استخدام تحليل التباين المشترك (ANCOVA) وذلك بهدف قياس أثر البرنامج التدريبي في تحسين الكفايات المعرفية والأدائية وقد أظهرت النتائج إلى وجود فروق ذات دلالة إحصائية عند مستوى الدلالة ($\alpha \geq 0,05$) بين المتوسطات الحسابية المعدلة لأداء أفراد المجموعتين الضابطة والتجريبية على مقياس الملاحظة الصفي البعدي والاختبار التحصيلي البعدي ولصالح أفراد المجموعة التجريبية الذين التحقوا بالبرنامج التدريبي المقترح. وفي مقابل ذلك لم تشر نتائج تحليل التباين الرباعي (ANOVA) إلى وجود فروق ذات دلالة إحصائية بين المتوسطات الحسابية لأفراد المجموعتين تعزى لمتغيرات الجنس، والتخصص الأكاديمي، والمؤهل العلمي، والخبرة التدريسية.

من جهة أخرى ولتقويم الكفايات الشخصية والمهنية لأفراد عينة الدراسة، فقد تم ذلك من خلال إجراء المقابلات الشخصية واستخدام أسلوب الملاحظة الصفي مع أفراد المجموعتين الضابطة والتجريبية. وقد أظهرت نتائج تحليل البيانات النوعية وجود فروق في أدائهم داخل غرفة المصادر وكذلك وجود فروق في إجاباتهم عن أسئلة المقابلة والبعديّة وقد كانت هذه الفروق لصالح أفراد المجموعة التجريبية.

الكلمات المفتاحية: برامج التدريب أثناء الخدمة، معلم غرفة المصادر، الكفايات التعليمية، صعوبات التعلم.

Chapter One

Introduction

1.1 Introduction

This study aims at constructing and measuring the effects of a training program based on instructional competencies for special education resource room teachers in Jordan. This chapter discusses the background of the study, specifies the statement of the problem, the conceptual framework, the research objectives, the research questions, the research hypotheses, the research framework, as well as the significance and the limitations of the study. Finally, the chapter presents the operational definitions adopted by the researcher.

1.2 Background of the study

One of the most important factors that influence a country's abilities to be economically competitive is the quality of its human resources, and therefore, of its education and training system, which is central to the development of its human resources.

In every educational system, the availability of abundant, qualified and dedicated teachers constitutes a significant resource to which educational planners and administrators devote considerable efforts. The concern for teacher supply in the right quality and quantity is largely due to the well-accepted maxim that teachers are the kingpins of the educational program, for it is they who determine the

direction of the system and ensure its success. Hence, a competent and effective teacher is one of the key elements in the success of the teaching and learning process (Aromolaran, 2005). Thus, it is essential to continuously evaluate the process that leads to teacher preparation in order to prepare teachers who are able to conduct the duties dependent on them towards handling the challenges imposed by the present era (Voorhees, 2001).

The educational system at all levels seeks to employ teachers with high skills and competencies, especially with regard to the teaching and learning process in the classroom. As a result, teacher preparation is carried out during the pre-service and in-service stages in accordance with fundamentals specified by the educational philosophy prevailing in the society. The purpose of this educational philosophy is to develop teachers with skills, attitudes, and values that qualify them to carry out the requirements of the teaching process such as to teach students in accordance with specific educational plans that take into consideration various educational stages, students' characteristics, abilities, attitudes, needs, and the nature of the educational materials. In addition, during the professional preparation process, teachers are exposed and trained with appropriate methodologies to use in their own classrooms (Hadidi, 1993; Tileston, 2004a).

Educational systems also seek to include children with special needs side by side with their normal peers by providing educational services that help them to invest their skills and abilities to achieve the healthy development that leads to self-achievement (Al-Khateeb, 2004; Tileston, 2004b). The teacher should,

consequently, help each student to reach conformity and adaptation with the surrounding environment. The teacher should, therefore, use the educational methodologies in a successful educational way. Teaching at special education centers must be individualized, and must also move away from traditional methods (Al-Zuhairy, 1998).

Teachers' training programs are necessary in order to upgrade their skills, knowledge and performance, to enable them to be more effective. According to Davis and Davis (1998), a teacher-training program is a process through which skills are developed, information is provided, and attitudes are nurtured, in order to help teachers to be more become efficient in their work. Thus, training comes in as a solution to the lack of performance of the teachers or when there is need to effect change in the way things have been done (Mathekga, 2004).

Gravett (2001) argues that training program can be perceived as a systematic development of certain necessary skill patterns in order to reach a certain level of competency in their execution of day-to-day tasks. Therefore, training is about identifying, assuring and helping planned learning in the key areas that enable teachers to perform current or future jobs. It is aimed at both improving performance and capacity (Burse, 1997). Thus, training programs have to equip teachers with valuable skills acquired through training that they deem necessary at their various schools (Kennedy, 1991).

Furthermore, training programs play a pivotal role, as it is through training that teacher's skills and attitudes can be changed for their own betterment. Therefore, training programs are of vital importance to teachers and to governments to pass on the latest innovations in teaching methods/strategies and new curricula (David, 2001).

There are two programs for teacher training: pre-service and in-service. In pre-service training program (PSTP), teachers often have to attend compulsory courses according to rules established by curricular to obtain a diploma or first degree. Such training is provided by formal education institutes, which prepare future professional for job (Carroll & Jobline, 2003).

In-service training programs (ISTP) are any vocational training acquired during employment, and undertaking to engage in such training is usually part of appointment agreement between trainer and trainee. Traditionally, teacher development was confined to in-service courses, however, a range of activities relating to both the formal and informal school process should be included in teacher development. Moreover, much of conventional ISTP was unsuccessful. This led to the recognition that development should begin with teachers' evaluation of their own practice and the identification of their training needs (Schofield, 1994). Malone, Straka, & Logan (2000) are of the opinion that ISTP is a necessary extension of PSTP with the aim of enhancing awareness, knowledge, skills and competencies.

ISTP programs help teachers expand their current knowledge of a subject/phase, gain new knowledge, and engage with colleagues at their school and other schools. ISTP programs are necessary to re-orientate teachers to new goals and values, to train them in new teaching and learning methods, to prepare them to cope with curriculum change, and to provide them with the knowledge and skills to teach new learning areas (Conco, 2004). ISTP programs also help teachers develop their own work thoroughly. They become more conscious of strategies for curriculum change and development, as many teachers enter the teaching profession without having received sufficient ISTP, though they may acquire basic skills in research and decision-making at various levels (Carl, 1995). A study conducted by Rojewski and Schell (1995), concerned with the adequate practical educational experience with which future teachers would be provided, find that teacher preparation courses must go beyond basic skills and knowledge, that teachers need more courses with practical experience, not just lecture classes.

Hayes (2000) argues that ISTP is a mechanism through which innovation in education continues to be introduced. Thus, ISTP is essential to update teachers about recent instructional development and curriculum innovation. This is also in line with the general purpose of ISTP, which is to be introducing new ideas and approaches to schools. Consequently, ISTP should be multifaceted in order to cater for the diverse needs of teachers. Indeed, stage theories of teacher development suggest that teachers at different stages of their career may have different in-service training needs (Moyer & Husman, 2000). Dilts (2002) holds that ISTP programs help teachers: (i) to be better able to handle difficult students, to

develop a great understanding of different learning styles; (ii) to enhance learners' self-esteem and therefore their desire for positive reinforcement; and (ii) to become more creative, imaginative and stimulating in their presentation.

ISTP programs are specifically essential in preparing special education teachers. In a study examining the training needs for special education teachers, Westat and Rockville (2002) indicate that the needs of teachers include teaching diverse students and using technology in instruction. It is for this reason that many countries run special education programs to develop comprehensive plans for training teachers who are working in the field of special education.

Indeed, the importance of teacher preparation has generally emerged because it prepares teachers and provides them with the competencies necessary for achieving success in their work; and this led to the emergence of the concept of Competency-Based Teacher Education (CBTE) in the field of Special Education. This movement has had an enormous effect in preparing teachers for teaching children with special needs (Al-Khateeb, 2004; Wendel, 1982). CBTE is aimed at providing teachers with the knowledge, skills, and attitudes to enable them to recognize and solve complex problems in their domain of study or future work (Hoogveld, Pass, & Jochems, 2005).

The CBTE movement came as a response to traditional educational methodologies used in teacher education. This movement arose as a result of criticism directed towards traditional teacher educational methodologies where outputs depended on

the amount of knowledge and the ability to retrieve it (Huizen, Oers & Wubbels, 2005). Consequently, the program of enhancing teacher competency level has become the key issue for teacher preparation during in-service training. The (CBTE) depends on analyzing the learning/teaching process into a group of competencies that every teacher must acquire in order to increase his/her chances of successful achievement of objectives. (King, King, & Rothwell, 2001).

1.3 Statement of the Problem

Special education teachers are required to be generally competent in many areas. Especially important are competencies in interpersonal skills, including counselling and presenting teaching services for students with special needs (Branch, 1990). 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. PSTP also lacks modern educational strategies such as the use of modern educational aids and instructional design (Collins & White, 2001). This has also negatively reflected on the students and their performances.

One of the factors that show the need for this study is that PSTP does not necessarily guarantee success in the teaching profession. There is an enormous gap between theory and practice. 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 (Norman & James, 1992). They need pre-service training strategies that depend on continuity in light of the new roles for teachers.

ISTP is still considered an important factor in preparing special education teachers since it is gaining more attention due to several factors, such as the increase in the number of the handicapped. However, the teachers find themselves having to deal with the variety of missions and roles the teachers must perform, the continuous changes that the educational technology has brought about, and the great gap between pre-service training and practicum in the field of special education (Cooper & Hunt, 1979; Renitta et al., 2004). However, ISTP must be based on models of adult learning and designed to encourage transfer of training from the in-service to the classroom by "helping the learner learn how-to-learn rather than merely transmitting content" (O'Brien, 1992, p.422).

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). 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 (Khuzai, 2001; Rosenberg, Sindela & Hardman, 2004). In this case, ISTPs are necessary in order to improve skills, knowledge, and performance competencies of teachers (Fitch & Kopp, 1992; Renitta et al., 2004a).

Generally speaking, 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 present researcher has always been of the opinion that the need to enhance quality special education could be achieved by the training of teachers through ISTP, to help them sharpen their skills of teaching students with special needs and to keep them posted on curriculum changes and the implementation of such curricular change. It was against this background of the study that the researcher has realized the need to conduct this study. Indeed, the problem of this study was personally witnessed by the researcher during his teaching experience (for more than 10 years) with students who suffered from diverse learning disabilities. The problem was confirmed further during the many short-term workshops for resource room teachers in Jordan in which the researcher participated (and, in his capacity as a member of the Jordanian Association for Learning Disabilities, he presented many lectures in the field of special education). As mentioned above, the researcher has observed the educational reality of resource room teachers and has practically depended on personal interviews with teachers.

Jordan and other developing countries lack research dealing with the in-service preparation and training of special education teachers, which usually undergo conventional training programs during pre-service. The theoretical side of these programs is still more prominent than the practical side. Besides, lecturing is still the prevailing method in these conventional training programs. There are no indications of any in-service training programs being designed based on teachers' training needs for special education resource room teachers (Al-Khateeb, 2004).

Indeed, the field of special education in Jordan is still short of well-trained educational staff that possesses the necessary teaching skills and competencies. The majority of teachers working with children with special needs in Jordan have indeed never received the appropriate training in special education during their pre-service training programs (Hadidi, 1990; 1993). Yet, there is a great need for skilled and qualified staff to help children with learning disabilities, and to keep up with the fast pace of development in the field of special education, especially with the increasing numbers of children joining the various special education centers, and the increasing demand on special education services for students of learning disabilities, using the resource room as an educational alternative. The Department of Special Education in the Ministry of Education in Jordan mentioned that the number of students with learning disabilities is 53,000 students (Ministry of Education, 2007).

In one study carried out in 1984 by the Queen Alia Fund for Social and Voluntary Work, it was found that 80% of special education teachers in Jordan had never

received any type of pre-service training in instructional planning and student evaluation in relation to teaching children with special needs. Furthermore, several studies in Jordan mentioned that special education graduates and those working in the schools of special education expressed their unhappiness with the content of the pre-service training programs (Al-Khateeb, 2004). On the other hand, Al-Weher and Abu-Jaber (2007) recommended 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.

Hadidi's studies (1990 and 1993) show that the field of special education in Jordan is short of teachers with experience and appropriate professional training. Consequently, Hadidi recommends in-service training programs to enhance and develop the skills and the competencies of teachers. However, Khuzai (2001) mentions the differences in the level of resource room teachers' mastery of effective teaching skills such as planning, instruction, classroom management, behavior modification, and evaluation.

Al-Zuhairy (1998) shows that teachers' practice of some instructional competencies was low. This inept practice of instructional competencies consequently negatively affects students' achievement in the resource room. This can be related to the fact that the PSTP of special education teachers are limited to the general educational preparation and not depends on the academic and professional preparations.

Most special education teachers in Jordan never received appropriate pre-service training which focused on practicum side (Hadidi, 1993, 1990). Besides, all in-service training programs adopted and conducted by the Jordanian Ministry of Education are designed for teachers in general, whether they teach students with special needs or normal students. Accordingly, it is found that there is dire need for designing in-service training programs for resource room teachers in Jordan. Hence, the problem of this study comes from this serious need for an in-service training program specifically designed for Jordanian special education resource room teachers. This study therefore has a number of important purposes: (i) to develop the list of instructional competencies necessary for resource room teachers, (ii) to construct a training program based on instructional competencies and to implement it, and (iii) to measure the effects of the training program in improving instructional competencies.

1.4 Conceptual Framework

Teacher training programs are commonly categorized into two types: pre-service and in-service. Carroll and Jobling (2003) report that PSTP is more academic in nature, provided by formal education institutions (responsibility of individual universities) and based on specific curricula. Yet, because the in-service training program (ISTP) 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). ISTP develops critical competencies

and skills to respond to the task and job responsibilities. Malone (1984) defines the ISTP as a program designed to strengthen the competencies of teachers while they are in the job. Orlich (1989) defines ISTP to include any specific and planning program to improve teacher's knowledge, skills, understanding, and performance in their present role and it is designed with the main goal of developing skills and competencies of teachers in order to enable them to fulfill immediate educational pressures.

Joyce and Showes (cited in Tzong, 1998) point out two purposes for in-service training program: (i) improving the teaching, which can be focused on tuning our present skills or learning better ways of teaching; and (ii) mastering new teaching strategies, to put alternative curriculum in place. Fitch and Kopp (1990) also show that in-service consists of programs designed to upgrade skills and knowledge understanding of teachers to enable them to be more effective. Consistent with this definition, it can be seen that almost all in-service training programs are specifically designed to develop personal and professional growth for the individual in-service teachers within a respectful, supportive, and positive organizational climate.

Lourdusamy and Kim (1992) categorize the ISTP for teachers into three kinds: (i) enrichment programs, for raising and updating the level of expertise and knowledge of teachers, (ii) familiarization programs, for orienting and updating teachers' knowledge and competencies related to the implementation of new curricula or new roles and practice, and (iii) specialization programs, for training

teachers in guidance and counselling, health and physical education, educational technology, and other special education program.

Elam (cited in Abdulhamied, 1982) had identified some essential elements for a teacher education program that is competency-based. Among the elements are: (i) competencies (inclusive of knowledge, skills and behavior) demonstrated by students and derived from the explicit conception of the teacher's role; (ii) assessment of the student's competency, done in the evaluation of the student as the primary source of evidence; (iii) student rate of progress, which is demonstrated via competency rather than by time or course completion, and (iv) the instructional program, which is intended to facilitate the development and evaluation of the student achievement.

Borich (1977) and Cooper et al. (1973) categorize teacher training programs based on CBTE into three types: (i) knowledge competencies (where a knowledge competency means a cognitive understanding derived from the instruction process or subject-matter content that the teacher is expected to demonstrate); (ii) performance competencies (which are the behaviors the teachers demonstrate in the classroom, especially, according to Borich, ongoing teaching behaviors); and (iii) consequence competencies (which are the outcome of the teaching and learning process between the teacher and his students).

On the other hand, Houston (cited in Saeed & Mahmood, 2002) and Clark (2000) identify and categorize 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 includes activities that provide opportunities for teachers to learn about teaching.

Furthermore, for Lerner (2003), 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. The first, scientific job requires competencies in assessment and diagnosis, curriculum, teaching practices, managing student behaviors, planning the teaching and learning environment, as well as monitoring and evaluation. Learning disability teachers must also know theories of learning and must possess strategies for teaching oral language, reading, writing language, mathematics, behavior management, social and emotional skills, and pre-vocational and vocational skills. As for competencies in human relationships, teachers must be able to institute good relationship with others, remembering to display appropriate responses to another's phase of professional improvement. A positive and eager attitude, combined with a readiness to learn from others, is necessary. As they work with others, learning

disabilities teachers must be able to manage personal stress, stay calm in time of crisis, and respect divergent points of view.

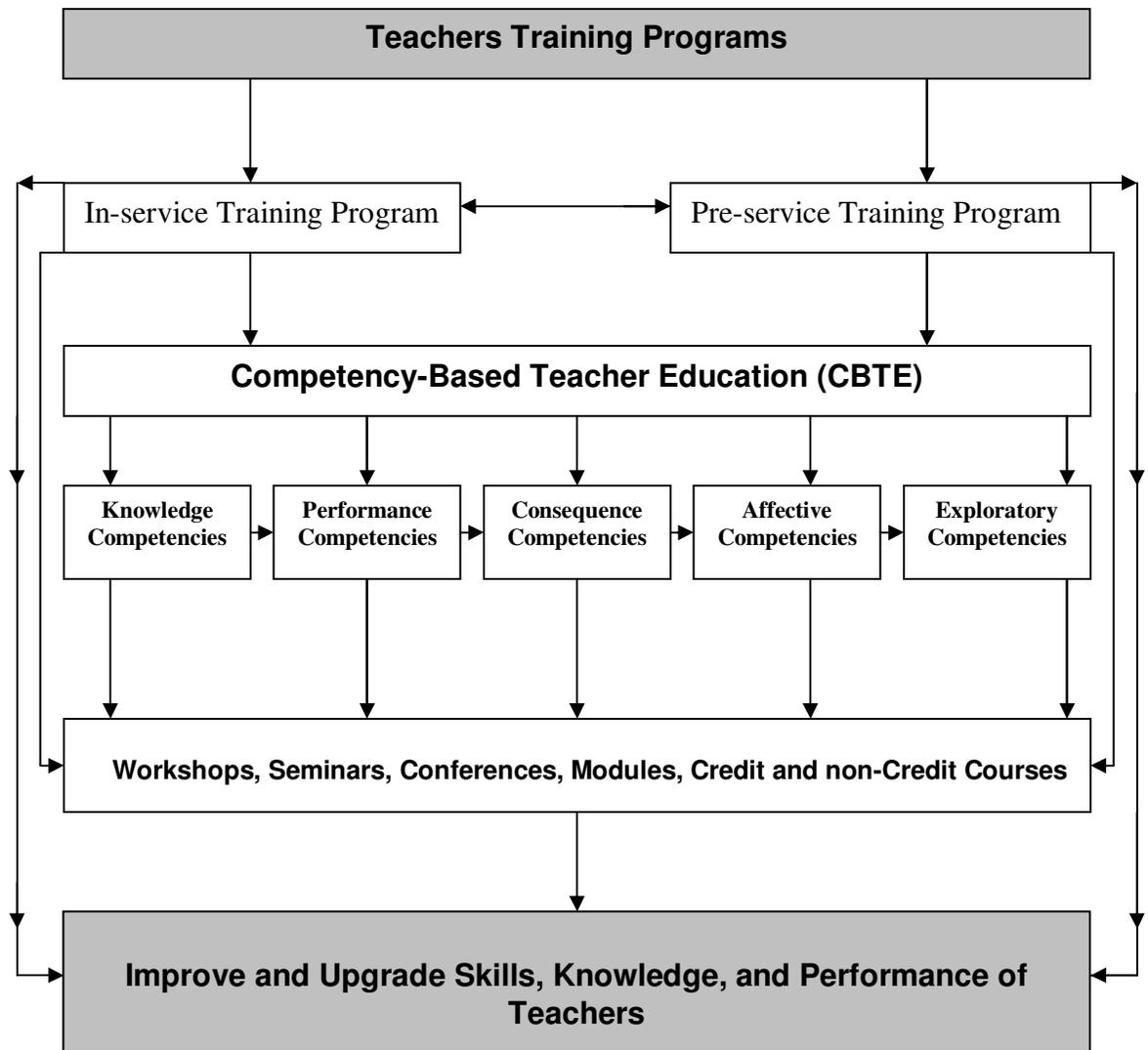


Figure 1.1 Conceptual Framework

Figure 1.1 above shows how teacher-training programs are divided into two types: pre- and in-service training programs. The PSTP aims to prepare the teachers academically through the formal educational institutions, whereas the ISTP aims to improve the teaching and learning process in the classroom. Both the PSTP and the ISTP can be designed through Competency-Based Teacher Education (CBTE). The CBTE deals with five types of educational competencies, which are knowledge, performance, consequence, affective, and exploratory competencies. Teachers can be fed with these educational competencies through workshops, seminars, conferences, modules, and credit and non-credit courses. Their acquisition of these educational competencies can enable them to achieve planning, teaching, classroom management, evaluation, and human relationship skills. The final output of both the PSTP and the ISTP based on CBTE, the figure shows, is to improve and upgrade the skills, knowledge, and performance of teachers, and to develop the teaching and learning process in the classroom.

1.5 Research Objectives

The following are the main objectives of the study:

- (i) To determine the instructional competencies necessary for resource room teachers in Jordan.
- (ii) To construct a training program based on instructional competencies for resource room teachers.
- (iii) To measure the effects of the training program module in improving the knowledge and performance competencies for resource room teachers.

- (iv) To evaluate the effects of the training program module in improving the personal and professional competencies for resource room teachers.
- (v) To examine the differences in knowledge and performance competencies according to gender, qualification, specialization, and teaching experience.

1.6 Research Questions

This study aims at answering the following research questions:

- (i) Does the training program have any effect in improving knowledge competencies of resource room teachers?
- (ii) Does the training program have any effect in improving performance competencies of resource room teachers?
- (iii) Are there any significant differences between the means of experimental and control groups in the post-achievement test according to gender, qualification, specialization and teaching experience?
- (iv) Are there any significant differences between the means of experimental and control groups on the post-observation scale according to gender, qualification, specialization and teaching experience?

1.7 Research Hypotheses

In order to answer the questions of the study, the following hypotheses were put forward:

- (i) There are no statistically significant differences at $p < .05$ between the experimental and the control groups in the post- achievement test.
- (ii) There are no statistically significant differences at $p < .05$ between the experimental and the control groups in the post- observation scale.
- (iii) There are no statistically significant differences at $p < .05$ between the means of experimental and control groups in the post-achievement test according to gender, qualification, specialization and teaching experience.
- (iv) There are no statistically significant differences at $p < .05$ between the means of experimental and control groups in the post-observation scale according to gender, qualification, specialization and teaching experience.

1.8 Research Framework

The research framework below describes the special education teacher-training programs in Jordan.

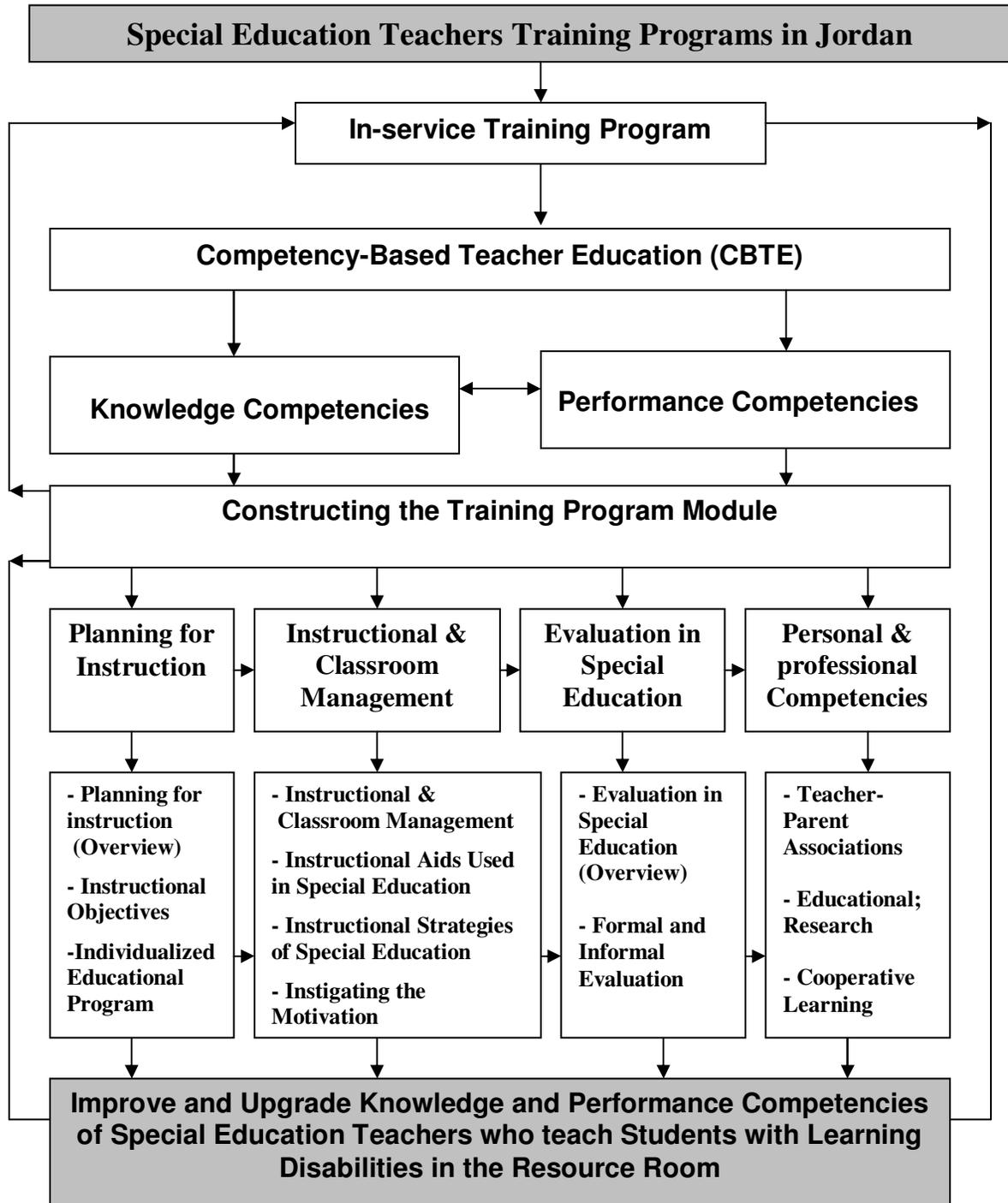


Figure 1.2 Research Framework

Figure 1.2 above describes the special education teachers training programs in Jordan, where there are two programs for training special education teachers, which are PSTP and ISTP. The research framework focuses on the ISTP for its significance in the preparation of special education teachers, as illustrated in the conceptual framework. The research focuses on two types of educational competencies, which are: (i) knowledge competencies: specifying knowledge and intellectual abilities or skills demonstrated by the teacher; and (ii) performance competencies: specifying objectives required by the teacher to demonstrate ability and to perform actions. The researcher has constructed a training program module based on these two instructional competencies (knowledge and performance competencies). The module has four dimensions (planning, instruction and classroom management, evaluation, and professional and personal competencies). Each domain includes a group of training units (see Appendices 5 and 6). The four dimensions of the module are evaluated with three instruments: an achievement test, a classroom observation scale, and interviews protocol in order to measure the level of teacher's knowledge and performance for these competencies. The output of the research framework is to determine if the ISTP which is based on CBTE, modules, and workshops can effectively improve and upgrade knowledge and performance competencies of special education teachers.

1.9 Significance of the study

The present study is significant for the following reasons:

- (i) It defines the instructional competencies necessary for resource room teachers in Jordan by reviewing the related educational literature as well as by investigating teachers' opinions in the resource room.
- (ii) It develops a training program based on instructional competencies in order to develop teachers' instructional competencies.
- (iii) It supplies professionals at private and public universities and colleges, and at the Ministry of Education, with information necessary for designing training programs for in-service teachers.
- (iv) It helps researchers conducting similar research on teachers in the resource room in other governorates in Jordan, other than Irbid.
- (v) The training program is expected to contribute to developing instructional competencies and to the practice of these competencies, which will positively affect the educational process.

1.10 Limitations of the Study

This study is limited to teachers specialized in resource room.

- (i) This study is limited to a restricted number of resource room teachers in the Educational Directorates in Irbid governorate.
- (ii) This study is limited to a number of instructional competencies, only those related to planning, instruction and classroom management, evaluation, and professional and personal competencies.
- (iii) This study is limited to knowledge and performance competencies for resource room teachers.
- (iv) This study is limited by the time of the implementation of the achievement test, the classroom observation scale, the interviews, and the training program, between June and September of 2006.

1.11 Operational Definitions

1. **Instructional Competencies:** These describe the ability to perform the duties assigned to the teacher at a particular mastery competency level that guarantees the achievement of desired objectives and makes the desired change in learners' behavior. These competencies are included in a list prepared by the researcher. They include planning, instruction and classroom management, evaluation, and professional and personal competencies.
2. **The training program module:** A program developed by the researcher to improve the instructional competencies of resource room

teachers. This program is based on the demonstration method and on instruction/training assignment through modules. This program includes a group of objectives, knowledge content, and the evaluation designed for this study.

3. **The conventional training program:** An in-service training program for teachers in Jordan adopted by the Ministry of Education. This training program is based on the lecture method and on the use of worksheets.
4. **The resource room:** A room attached to the regular school, equipped with appropriate furniture in addition to suitable tools and instruments, where the students with learning disabilities come to receive individual instruction. Work in the resource room is done only part of the day, and students spend the rest of the day in the regular classes with their teacher and with normal students.
5. **Students with learning disabilities:** A group of students who have disabilities in academic skills such as the Arabic language and Mathematics. They hence need individualized educational and an instructional plan to treat the deficiencies in the basic academic skills in reading, writing and math, in order to help them reach a level of education close to that of their peers in the regular classroom.
6. **The resource room teacher:** A teacher specialized in the field of special education, well trained to perform the teaching process in the resource room. The teacher also is expected to possess vast knowledge about behavior modification.

7. **Teaching planning:** The ability of resource room teachers for preparing, planning and analyzing teaching activities ahead of the teaching process in order to present the contents of the lesson to students in a suitable way.
8. **Instruction and classroom management:** A group of procedures required to carry out the instructional process inside the resource room, in order to achieve the educational objectives. These procedures include the methodology, the interaction between teacher and students, as well as practicing the educational activities under circumstances of discipline and control.
9. **Evaluation:** A group of procedures laid down by the resource room teacher to measure the achievement of the educational and instructional objectives which the teacher has prepared for every student to identify the effectiveness of the methods and activities that have been used in the instructional process.
10. **Knowledge competencies:** Information, knowledge, intellectual abilities and skills that can be measured by an achievement test composed of 50 multiple-choice questions relevant to the first three dimensions of the training program module: namely, planning, instruction and classroom management, and evaluation.
11. **Performance competencies:** Teaching practices performed by resource room teachers in the classroom, measurable by means of a classroom observation scale that consists of 40 items relevant to the first

three dimensions of the training program module: namely, planning, instruction and classroom management, and evaluation.

12. Professional and personal competencies: Competencies connected to the personality of the teacher, his strong and weak points, and his relationship with his colleagues, family and school which are shown in the interview protocol, which consists of 10 questions aimed at evaluating the forth domain of the training program module, i.e. the personal and professional competencies.

1.12 Summary

In this chapter, the researcher has introduced the background of the study, the statement of the problem, as well as the main purposes of this study. The chapter has also explained the conceptual framework, the research objectives, questions and hypotheses, the significance of the study and its limitation. Furthermore, has been designed a special framework for this study is based on the conceptual framework; finally, it has been clarified many of operational definitions which are related to this study.

1.13 Overall Structure of the Study

The figure below portrays the overall structure of the study:

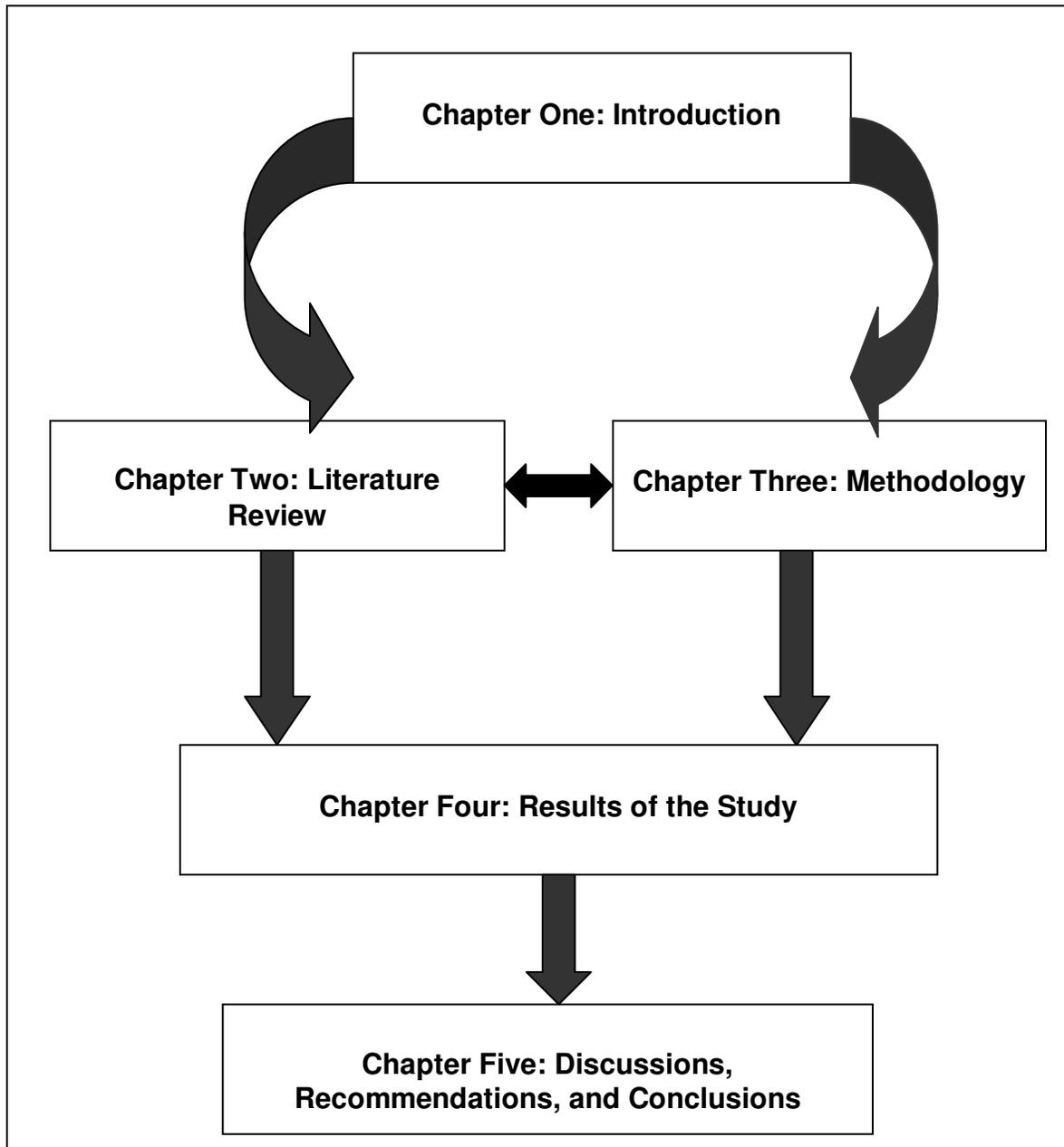


Figure 1.3 Structure of the Study

Chapter Two

Literature Review

Probably nothing within a school has more impact on students in terms of skills development, self-confidence, or classroom behavior than personal and professional growth of their teachers (Barth, 1990, p.49).

2.1 Introduction

This chapter presents a review of the literature. For the purpose of this study, this chapter has divided into seven main sections. The first section presents a review of the education and special education practices and development in Jordan. The second section is concerned with special education teacher training programs. The remaining three sections deal with the Competency Based Educational Teacher (CBTE). The fourth section shows the theoretical framework, the fifth reviews instructional competencies of the training program module. Section sixth talks about resource room program, and the final section reviews related studies conducted in the Arab and Western countries.

2.2 Education in Jordan

Jordan is a comparatively small Arab country with a population of about 5,500 million and an area of 93,000 square kilometers. The population year growth rate in 2004 was estimated at 2.8%, but the rate of actual increase was 2.4% a year. Roughly 38% of the population is less than 15 years of age, the population age 15-65 years is about 58.5% and the population age over 65 age is approximately 3.5% (Department of Statistics, 2004).

The development of Jordan's educational system is dramatic that this system almost started from the early 1920s. Jordan has forged a comprehensive, high-quality system to develop the human capital of its citizens. Today there are 3182 government schools, 2138 private schools, 14 schools associated the United Nations Relief and work Agency for Refugees (UNRWA) (Ministry of Education, 2004), Furthermore; there are 43 community colleges and 23 universities (Ministry of Higher Education and Scientific Research, 2006). In Jordan, access to basic education has been emphasized in all of the development plans of the country. The government has, as a matter of policy, provided every village and community that has 10 or more children, above 6 years old, with a school. This fast increase of facilities enabled citizens in poor and distant areas to gain entrance to education (Ministry of Education, 2006).

2.3 Special Education in Jordan

Similar to other countries in the Middle East, Jordan has suffered greatly from regional instability and struggles. For the past 60 years, Jordan was worried about its economic development, educational restructuring, primary health care improvement, and social development. As a result, problems and needs of people with special needs did not represent priority concerns. However, special education and rehabilitation services have witnessed development. the Main pointer of this development are: increased realization of the extent of special needs conditions, better understanding of the needs and capabilities of persons with special needs, establishment of special education teacher training programs, legislation of laws

and systems pertinent to education and preparation of children with special needs; and change in public attitudes, among many other changes (Hadidi, 1998).

The first national survey of persons with disabilities in Jordan was conducted in 1979. Results indicated that 18,829 persons with special needs were identified, amounting to a prevalence rate of one percent (Queen Alia Fund, 1979). In 1996, the population census identified 54,747 persons with special needs, amounting to a prevalence rate of 1.2% (see Table 2.1).

Table 2. 1 Number of persons with special needs identified in the population census (1996)

Category	Persons with special needs	% of Target population	% of General population*
Hearing impairment	8,759	16	0.19
Visual impairment	6,570	12	0.15
Physical disability	26,826	49	0.60
Mental retardation	6570	12	0.15
Not stated	6,022	11	0.13

**The population in 1996 was (4,500,000) breath approximately, (Department of Statistics, 2004).*

Special Education in Jordan has witnessed a massive development especially after the United Nations declared 1981 a universal year for people with special needs. This declaration led to significant recommendations which contributed to elevating the grade of people with special needs. Jordan has become one of the leading Arab countries in this regard due to the care it displayed in emphasizing that retardation is one of the problems that the community needs to find a solution in

addition to drawing up the activities and the policies to suit the presentation of the best educational, training, counselling services, and the institutional care for all people with special needs according to their abilities and aptitudes (Alazah, 2001).

Special education in Jordan achieved this by taking into consideration the available potentials to assimilate everyone possible and enable him or her to become active and productive members in their communities. Despite the lack of resources and the great burden the Jordanian government is handling regarding special education departments and the extremely high cost of working with people with special needs, the Jordanian government worked through governmental and voluntary institutions to give people with special needs maximum attention and care (Obaid, 2000).

One began to see schools, centers and institutions providing services for various sectors of people with special needs whether mental retardation, deaf, blind or physical disabilities. These institutions were both governmental and voluntary. Development was qualitative with regard to the programs and the excellence services provided during the 1990s. This development was accompanied with quantitative expansion in the number of centers and schools, which reached until 1994 about 112 institutions; governmental, voluntary and social services in addition to the United Nations Relief and Works Agency (UNRWA) (Obaid, 2000).

2.3.1 The Ministry of Education (MOE)

Providing special educational and therapeutic services for people with special needs started in 1984 through the Department of Educational Counselling in the Students Affair Department of the MOE. Providing services was in the form of educational programs in some schools. Coordination was also established with Queen Alia Fund for Voluntary and Social work (now called The Jordanian Hashemite Fund for Human Development), to begin modification of the classes of special education established in 1987 in the southern parts of Jordan. These classes were intended to become resource room instead of being classes for special education (Al Nabteety & Jaber, 1996).

Because of the increasing demand and the increasing number of students with special needs in the government schools of the MOE, a new law was established in 1993 for people with special needs. This law gave the MOE the total responsibility for caring of children with special needs. The MOE also issued a new law with the same concern in 1994. Both laws emphasized the necessity of providing special education services and widen the range of the services to include special education programs and gifted and talented students. A new administrative unit, named the Department of Special Education, was established in the MOE to deliver services to this category of students. Furthermore, due to the increasing demand for these kinds of services, the department was enlarged to become a directorate with three departments: Department of Educational Counselling, Department of Therapeutic Education, and Department of Gifted and Talented Students (Al Nabteety & Jaber, 1996). The MOE established a Special Education

Department with the primary purpose of promoting mainstreaming of children with special needs into regular schools. To achieve this, a five-year plan has been developed in collaboration with United Nation Education, Scientific and Culture Organization (UNESCO) and local organizations. More than 40 resource room and special classes have been established. In 1993, the National Council for the Handicapped in Jordan was formed to coordinate and promote policies and programs of governmental and non-governmental organizations relevant to special education and rehabilitation (Ministry of Education, 2006).

The United Nations Children's Fund (UNICEF) in cooperation with the Ministry of Health in Jordan conducted a national prevention campaign in 1995. UNICEF also supported local organizations' labors aimed at early discovery of handicapped conditions. In this respect, it should be mentioned that important roles in prevention and early detection of disabilities are played by the General Union of Voluntary Associations (GUVA) and the Child Care and Development Institute affiliated with Nour AL-Hussein Foundation (Hadidi, 1998).

The establishment of the Special Education Directorate reflected the beginning of the government's organized interest with the provision of special education and rehabilitation service. The directorate has been given the responsibility of increasing, regulating, and evaluating services provided to persons with special needs by different sectors in people. The Jordan Sports Federation for the Handicapped that was established in 1981 has also played a significant job in the lives of many people with disabilities. The main goals of the federation are to help

opportunities for people with disabilities to share in society life during sporty, social, cultural, and fun programs (Hadidi, 1998).

The government of Jordan is maintaining, providing and developing special education programs for all categories concerned. These programs include schools, special day schools and residential schools, resource room in government schools and comprehensive centers for vocational rehabilitation. Worried authorities commenced to issue new laws and legislations to give respectable life for special needs persons who were enabled to get their valid privileges sheltered by law (12), 1993 (Ministry of Education, 2006).

2.3.2 The Educational Services for Students with Learning Disabilities

Education is considered a social necessity in Jordan since everyone is entitled to the right of education. Thus, everyone is entitled to the right of education that is compatible with his/her capabilities and aptitudes. The philosophy of education in Jordan calls for the comprehensiveness of education to include learners with special needs, gifted and talented students, and disabled children as well (the Ministry of Education, 2006). Jordan is witnessing a new direction concerning special education based on providing educational services within the educational system for children with special needs. The program of providing children with special need with services in an institutional way based on the case of the children in institutions outside the school system. This way was suitable for several cases with that cannot benefit from the school structure. However, these schools included numerous cases that must not be separated from the society because their

problem was not so severe and can be helped within the normal school system. Providing special educational services advanced to include the school system. New pioneering experiments in helping children with special needs appeared in Jordan and started by one of the private sector schools in 1983, through opening a special education class for children with special needs. After that, many other schools followed suit, but on a limited scale. One of the pioneering experiments in this field was what was done by Queen Alia Fund for social voluntary work starting 1987. The first special education class was started in Karak governorate, south of Jordan (The Ministry of Education, 2006). The Education Department at the UNRWA established two other centers as resource room attached to UNRWA schools in 1989. After that, other schools opened other resource room in the regular school system (Al Smadi, 1996).

Resource room is the best educational alternatives that provide educational services for children with learning disabilities in Jordan (Al Ma'aitha, 1999). Providing special educational services for children with special needs started by opening special classes in 1987 in cooperation with Queen Ali Fund for Social Voluntary Work, which had the most important role in establishing and equipping these rooms with the necessary equipment and educational needs. The Ministry of Education adopted the model of resource room, which is considered one of the most advanced educational alternatives adopted after the Educational Development Conference in 1987. This conference recommended the necessity of expanding and varying the forms of services for all kinds of students including children with special needs in order to achieve the suitable educational objectives

and enable the students to get the proper education as their peers from the regular classes each according to his/her own capabilities and aptitudes (The Ministry of Education, 2006; Al Waqfi, 1998).

2.3.3 Learning Disabilities (LD)

Student with LD are appearing in alarming numbers in the educational setting; almost half of the more than six million students who receive special educational services each year are identified as a LD. The working with this population requires a basic understanding in the learning process. When a students learners something new, physical and chemical changes happen in the cell of the brain. These changes help to establish efficient neural networks that allow different areas of the brain to work together. Such network becomes stronger over time and with repeated use. Thus, a student with LD can store information in his or her memory and access it as needed (David, 2001).

According to l'Etoile (2005) the neural networks may not function efficiently, resulting in difficulty storing and retrieving information from long-term memory. This memory deficit many impair a student's abilities to use many typical learning strategies, such as grouping similar items, recognizing symbols, following sequences, and linking sounds with visual images (i.e., letters and words). Essentially, student with LD has difficulty perceiving sensory patterns that are critical for connecting separates pieces of information.

Students with LD have normal intelligence but do poorly in their schoolwork. A learning disabled child is not mentally retarded but has learning disabilities because of emotional or social problems. LD according to the National Joint Committee on Learning Disabilities Definition (1994) as

A general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities. These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction. Even though a learning disability may occur concomitantly with other handicapping conditions (e.g., sensory impairment, mental retardation, social and emotional disturbance) or environmental influence (e.g., cultural differences insufficient- inappropriate instruction, psychogenic factors), it is not direct result of those condition or influences (Lewis & Doorlag, 2003, p.220).

Furthermore, the Federal government of USA (1977) defines learning disabilities as;

A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term dose not include children who have learning disabilities which are primarily the result of visual, hearing, or motor handicaps, or mental retardation, or emotional disturbance, or of environmental, cultural, or economic disadvantage (Kaplan,1996, p.166).

More importantly, the National Center for Learning Disabilities in Princess Sarvath College/ Al-Balqa Applied University in Jordan (1998) adopted the following definition for learning disabilities;

It is a set of variables of disorders inside the individual which is as a result of dysfunction in the central nervous system and tack a form of difficulty in acquiring the verbal and non verbal skills appeared in the individual life and related to problems in social interaction or mental retardation (Alwaqfi, 1998, p.28).

2.3.4 Types of Learning Disabilities

Learning disabilities are characterized by their heterogeneity more than by any other factors. The difficulties these students' experiences take many forms, and no two students are alike (Raymond, 2000). Perhaps the easiest way to conceptualize the different types of problems the students may exhibit is to use the framework suggested by Lerner (2000); and Smith (2004) which proposed that learning disabilities could be divided into two categories which are:

(i) Developmental learning disabilities / neuropsychological

Inherent in the term learning disabilities is the understanding that the disorder or disorders exists in the person, not the environment. Hence, the first hypotheses proposed that these individuals suffered from brain damage, brain dysfunction, or brain difference resulting in disordered thinking skills, poor memory, poor attentive skills, and challenging behaviors (for example, lack of motivation, passive aggression). The neuropsychological model assumes that learning disabilities are due to the following:

- A. Something wrong with or different in the child's brain or perceptual systems
- B. Some type of neurological dysfunction
- C. Disturbances in perceptual-motor function.

(ii) Academic achievement learning disabilities

The second category is defined as academic achievement learning disabilities which include deficits in school subjects such as reading, writing, spelling, mathematics, social disabilities, and language and reading disorders. According to l'Etoile (2005), academically, the student with LD fall significantly below what is expected for their age, education, and level of intelligence. They are likely to show deficits in fundamental academic areas, such as reading, writing, or math, and they may have difficulty reading social cues.

2.4 Special Education Teachers Training Programs

Special education teacher training programs urgently need development since the field of special education still suffers from a lack of qualified educational staff with professional competencies (Renitta, Jerry & Ann, 2004). The majority of teachers of students with special needs in Jordan never received a suitable pre-service training in special education (Hadidi, 1990). There are two programs for training special education teachers:

2.4.1 Pre-service training program (PSTP)

Pre-service training programs (PSTP) include studying several courses in special education. Some educators believe that pre-service training does not guarantee teachers' professional performance in the future. They believe that there is a wide gap between theory and practice; consequently, special education programs depend mainly on practicum training that represents an opportunity for the teacher to acquire various skills (Al-Kateeb, 2004; Babione & Shea, 2005). Several studies

mentioned that special education graduates and those working in the schools of special education expressed their dissatisfaction with the content of the pre-service training programs (Yarger & Merlens, 1980). Collins & White (2001) describes a model program for training pre-service elementary and secondary school principals in educationally sound and legally defensible inclusion programs extending to students with emotional and behavioral disorders (E/BD). The program has three major objectives: (1) to train pre-service school administrators (principals and assistant principals); (2) to train school administrators in system-change strategies related to the implementation of an effective school-based special education program for students with behavioral disorder; and (3) to disseminate the outcomes of the training project on a implementation and includes customized courses in special education law and curriculum, instruction and program design, leadership institutes on specially selected topics, a year-long practicum, and individual profiles for demonstration and evaluation of the applied competencies.

In Jordan, there are three types of pre-service degree programs for special education teachers: (i) Diploma degree level, which is mostly offered by Colleges for a period of two years beyond high school; (ii) Undergraduate degree (Bachelor), which is usually offered for four years by universities; and (iii) Post graduate degree, which offered for one-two years for Master and 2-4 years for PhD (Ministry of Higher Education in Jordan, 2006).

According to Graves et al. (1992) the Division for Learning Disabilities (DLD) of the Council for Exceptional Children (CEC) has develop a list of competencies

designed to guide the preparation of teachers of students with learning disabilities. It is based upon a conceptual model known as “ the cube” which divided into 10 broad area: (1) nature and needs of students with learning disabilities; (2) academic support areas: study skills, and vocational skills; (3) curriculum for support areas and modification of school core curriculum; (4) assessment methods, use, and interpretation; (5) classroom assessment, management, and motivation; (6) collaboration and consultation skills; (7) specialized instructional strategies, technologies, and materials; (8) historical and legal aspects; (9) nontraditional practices and procedures; and (10) clinical and field experience.

Some of the criticisms directed towards special education teacher training programs were reasonable, since the teacher burnout phenomenon took a major part in the special education literature. This teacher burnout phenomenon refers to the teacher’s feeling of being exhausted and the desire to quit teaching children with special needs because they feel helpless trying to improve the work environment. This feeling happens because of several factors that might be related to the teachers themselves or to the educational status (Al-Khateeb & Hadidi, 1994; Sayer & Jones, 1985).

Some signs indicate that one of the major factors causing the teachers’ feeling is the ineffectiveness of the PSTP (Weiskopf, 1980). However, the PSTP might be related to several problems. Prehm, (1984) classified these problems into three categories as follows:

(i) Problems related to trainees

Trainees lack pre-service training with children with special needs. They also lack the basic knowledge in education research, behavior modification, and statistics. It is possible to overcome this problem by defining the specific factors for choosing students to join the special education field. In addition, there are personal characteristics related to teacher success in dealing with children with special needs. Some of these characteristics are: the teacher's knowledge of his/her strengths and weaknesses, activity and effectiveness, physical endurance, accepting individual differences, patience, creativity, and consideration for others' feeling. Furthermore, one of the problems related to trainees is that they do not mostly work in the field of special education after they graduate due to the lack of work opportunities or the lack of desire to work with limited incentives and low financial rewards.

(ii) Problems related to the training program

The effective training program is the program that adopts a clear philosophy, makes it possible to achieve clear objectives, and uses objective evaluation to detect problem areas in preparing trainers.

(iii) Problems related to trainers

The training program will not be as beneficial as we expect unless qualified trainers with professional expertise conduct the training process; consequently, opportunities for professional growth must be made available for trainers. Besides, the training mission is not the responsibility of the teachers alone, but also the responsibility of the other specializations, since the profession of special education includes teamwork and cooperation from other specialization.

However, a number of researchers have expressed a lot of dissatisfactions with PSTP, it has been that it can only give the teacher knowledge and skills to start the career but cannot equip the teacher for life. Also, it has been that teacher education dose not relate to theory and practice and in so doing fails the teachers (Korthagen et al, 2001). According to Russell, Williams, & Gold (1992) the project RAISE (Rural America Institutes for Special Educators) was a pre-service teacher training program specifically setting. The project goals included: (1) train teachers to meet the academic, social, vocational, and ancillary service needs of rural special education students; (2) improve the quality of training to rural special education pre-service trainees; and (3) assist in the recruitments and retention of teaching personnel specifically trained for rural special education.

2.4.2 In-Service Training Program (ISTP)

As a result of the continuous change the special education field is witnessing, in-service training received great attention because this kind of training is an important means for developing and enhancing teachers' educational skills to keep them informed about the educational developments. Therefore, we find that in-service training is considered an indispensable factor in teaching special education teachers, which leads many countries running special education programs to develop comprehensive plans for training all those working in the field. Moreover, most special education teachers in Jordan never received pre-service training; therefore, ISTP is necessary (Queen Alia Fund, 1984).

ISTP aims at changing the behavior, skills, and the capabilities of the teachers after they start work at schools. According to Nielson (1979) the ISTP have been used to repeatedly to educate teachers about exceptional students. The main objective of this training program is to enhance the teachers' performance and help them acquire new knowledge and skills. This training usually takes different forms, such as training workshops, courses offered by the educational institutions or local agencies where the teachers work, or even courses offered by the institutions of higher education, such as college course work (Monjan & Gassner, 1979; Killoran et al., 2001).

Henderson (1978) categorized the in-service training program as third cycle of teacher education. The first cycle being personal education of the teacher, the second pre-service training together with induction, and the third being the whole range of activities by which teachers can extend their personal education, develop their professional competencies, and improve their understanding of educational principles and techniques.

According to Jones and Lowe (1990) the effective ISTP should have at least two potential outcomes: (i) change of teachers' classroom practice, and (ii) change in teachers' belief and attitudes. According to Salleh (1995), ISTP is widely used to keep teachers up-to-date on various educational areas. These programs development activities are commonly used as means to enforce responsible self-renewal for teachers and schools. Furthermore, ISTP include workshops, curriculum development sessions, peer observation, independent study, and self-

assessment. At the school level, it might include specific training and educational of courses on counselling. These techniques are typical short-term strategies used for changing individual teachers and other staff members.

Gemo (2004) categorized ISTP into five sections: (i) induction or orientation training: this type of training supplements whatever per-service training the new personal might have had, and is given immediately after employment to introduce the new extension staff members to their positions. It begins on the first day the new employee is on the job; (ii) Foundation training: provide newly recruited people with professions knowledge about official rules and regulations; (iii) Refresher training: is aimed at updating knowledge of various categories of staff members. This training deal with new technical information in method's courses; (iv) on-the-job training: is the routine scheduled training included as part of day-to-day staff activities; and (iiv) career training: is designed to upgrade knowledge and skills through out the career of staffs members.

2.4.3 Current attitudes toward preparing special education teachers

There are three main current attitudes in the preparation of teachers in special education:

(i) First: The attitude towards mainstreaming of special education and general education

One of the important attitudes in special education teacher training is to train them to perform new, more varied and different roles. These roles were different from

ones the education programs were based on in the past. Old education programs were based on training teachers to work in special educational situations such as teaching in private schools (Farrell & Ainscow, 2002).

Now, however, education programs are based on providing teachers with skills and capabilities necessary for work in varied educational situations in accordance with the principle known as the "least restricted environment. The educational field witnessed human and social changes with respect to children with learning disabilities asking for normalization as an educational principle aiming to provide the children with learning disabilities with education and life environment as close as possible to normal life style regardless of the disability the children have (Al-Khateeb & Hadidi, 1994; Lerner 2000). Consequently, the general education initiative appeared. This initiative aims at making general education responsible for teaching children with learning disabilities (Lewis & Doorlag, 2003).

(ii) Second: The attitude towards Competency-Based Teacher Education (CBTE)

The belief in the existence of a close relationship between pre-service training and work in the field leads those responsible for teacher training programs to exert more extensive efforts to discover the skills and the capabilities necessary for preparing successful teachers in the classroom (Hoogeveld, Paas & Jochemes, 2005). This attitude was known as based on teaching competencies. This attitude had a great effect on teacher education programs in the last few decades (Hadidi, 1991, 1985). Medly (cited in Cheng & Tsui, 1996) suggests that teachers

competencies refers to the set of knowledge, abilities and beliefs a teacher possesses and teacher performance is the use of knowledge and skill in the classroom.

This form of training depends on defining the knowledge, the skills, and the capabilities that must be available to the teacher of special education in order to be able to educate and help the children with learning disabilities in the educational process in an effective way. The skills and the capabilities are stated in the form of performance objectives expected to be achieved through theoretical information, experience, and practical activities that must be available in the pre-service training programs (June, Diane & Denise, 2000).

Saidin (1987) stated that the key competencies listed according to their categories were as follows: (i) competencies relating to community relations: Understanding role of adult education within the community and understands the interrelationship of the school and community in providing for adult education; (ii) competencies relating to instructional skills: facilitates individual adjustment to the changing nature of the society; and uses instructional methods with special relevance to learners, and assesses learning needs of learners; and (iii) competencies relating to the understanding of the learner: demonstrates behavior which reflect a feeling for the dignity and worth of the individual.

Hall and Weber (cited in Cooper,1980) describe the basic commonalities of CBTE as: (i) a set of learning objectives that are stated so that their accomplishment can

be observed for specific learner behavior or knowledge; (ii) minimum level of achievement are established as a criterion of success; (iii) competencies are stated so the assessment of student learning can take place through direct observation; (iv) objectives are known to student as he begins a learning experience; (v) level of mastery to be used as criteria of successful achievement is known by the student in advance; and (vi) objectives in assessment of achievement is sought by using the learner's performance as the primary source of evidence.

(iii) Third: The attitude towards the non-categorical approach in Special Education

In the past, teacher training was conducted in accordance with what was known as the categorical approach where a teacher graduates prepared to work with only one disability, not with any other. Now, however, a new approach appeared known as the non-categorical approach. This approach is based on the nature of behavioral characteristics of the children with learning disabilities, but it is not based on the category the children belong to. The main objective of this approach was to overcome the problems resulting from the various names for the categories of children with learning disabilities (Ysseldyke, et al, 2000).

The non-categorical approach training programs are based on the assumption that the similarities between the categories are more than the differences in the special education field. Consequently, there is no need for classifying the disabilities to different categories, or to develop educational approaches and building special schools for each category alone (Ysseldyke, et al, 2000).

The objective of the non-categorical training is not to abolish the classification, but to limit them. Abolishing the current classification is not practical, and it will lead to a new classification. In general, disability categorization needs professional knowledge on the teachers' part. Besides, the category curve is still the curve depended by most of the universities in Jordan (Al-Khateeb & Hadidi, 1994; Tileston, 2004c).

2.4.4 Preparation of Special Education Teachers in Jordan

Jordan has tried to find proper solutions for the problem of training special education teachers, and these solutions were represented in establishing special programs for training special education teachers and holding pre-service training courses for teachers in the field of special education. Jordan paid special attention to developing the skills of special education teachers and enhancing their instructional competencies. The University of Jordan started several pre-service degree programs for the Bachelors, the Masters, and The PhD (the University of Jordan, 2006). These programs were based on the following dimensions of the process of training special education teachers:

(i) General education preparation

The cultural dimension is a group of knowledge and expertise that must be provided for the teachers, and are related to the environment, students' characteristics, students' needs and attitudes, the needs of the society, and the requirements of the era (Al-Zuhairy, 1998; Skrtic, Harris and Shriner, 2005).

(ii) Professional preparation

The professional training of teachers aims at providing the teachers the educational skills and fundamentals necessary for them in the educational situations that they meet while serving students. In order to enhance the professional level of special education teachers, the theoretical educational material must undergo review in order to become derived from the reality and relate the curricula with the educational stage the teacher is going to work with. Presenting the educational material will be divided into three stages: Theoretical, theoretical and practical in order for the practical side to fathom the theoretical one, and field training to provide the educational skills needed (UNESCO, 1973; National Joint Committee on Learning Disabilities, 1998).

(iii) Academic preparation

During teacher training, focus is extensively done on the specialization materials. This focus is around the material the teacher is going to teach in the future. Teacher trainees are then provided with the most recent studies in the field of specialization in order to prepare qualified teachers in the field of specialization (Council for Exceptional Children, 2003). Therefore the educational competencies models have that been achieved indicate the field of special education which is needed to improve the professional work of special education teachers. It is also considered the basis to pre-service teacher training programs (Reynolds, 1978).

2.4.5 The Major Weakness in the Teacher Training Programs in Jordan

The studies conducted by educators such as Al-Khateeb and Al-Khateeb (1986) and Al-Nabelssy (1995) that studied the reality of teachers show that these programs had many challenges and problems:

(i) Too many responsible departments in preparing teacher training programs and the difference between the levels of preparation.

For example, there is training conducted by The Ministry of Education, by the universities, and by community colleges and some governmental institutions. Consequently, there are differences in the levels of preparation such that there are preparation programs for two years (diploma) after high school programs at the level of the university degree (Bachelor's Degree) programs at the level of post graduate diploma, the Master's Degree and the PhD (Ministry of Higher Education Research, 2006).

(ii) Formality: This characteristic is best apparent through adopting unified instructional plan and courses for all students joining teacher-training programs. In addition, the characteristic adopts unified conditions for admitting students and systematic principles for success and graduation at the programs. The formality characteristic is based on an erroneous assumption that the professional needs of the teachers are unified and controlled for all teachers and that the students joining the programs possess the same abilities and readiness.

(iii) Lack of a theoretical framework for preparing and training teachers: All teacher preparation and qualification colleges and institutes lack the theoretical framework to guide their performance and activities (Hadidi, 1990). However, modern teacher training colleges adopt a theoretical model with practical fundamentals derived from the theories of learning/teaching theories of human

learning such as the Behavioral Theory and the Cognitive theory (Borich & Madden, 1977b).

(iv) The ambiguity of the objectives of the teacher-training programs: Any review to teacher training programs in Jordan will reveal that these training programs lack clear, defined, well planned for objectives (Shoeater, 2004).

(v) Discrepancy in focusing on the level of the components of teacher-training programs: It is well known the teacher training programs in Jordan consist of principal components, as follows: General Culture, Specialized Culture, and Behavioral Culture. However, it is noticeable that teacher preparation institutions have no specified or definite criterion according to which the quantity and the ratio of each of the basic components are determined. However, the size and the ratio of the basic components should be determined depending on the professional needs of the trainees on the one hand, and the roles the teachers are expected to play at school on the other (Shoeater, 2004).

(vi) Lack of balance in the focus of the theoretical, the performance and the application sides: The absolute effectiveness of teacher training programs in Jordan focuses on an erroneous principle, stating that the teachers who possess knowledge are capable of transferring this knowledge and employing it at school after graduation from the training program. Based on this erroneous principle, teacher-training programs in Jordan are based on the theoretical sides and disregard the application side. This explains these programs disregarding the application component of instruction (Al-Sayyed, 2005).

(vii) Separation between training and preparation of pre-service teachers and training and preparation of in-service teachers: Community colleges and institutions take the responsibility of the pre-service training, and the Departments of Training at the Ministry of Education takes the responsibility of the in-service training, excluding in-service special education teachers. Furthermore, there is no coordination, what so ever, or cooperation, or exchange of services between community colleges on the one hand, and the Departments of Training and qualification at the Ministry of Education on the other (Al-Sayyed, 2005).

2.5 Competency- Based Teacher Education Movements (CBTE)

The CBTE is a concept that has existed for several decades and has its origin in the United States of America. In the 1960's it was labeled as performance-based teacher education (PBTE). During these years CBTE was characterized by its detailed analyses of behavioral aspects of professional tasks. The tasks of professionals were described in detailed lists of fragments and assessable element (Wesselink et al., 2005). Although this was in the 1960's and 1970's, in the USA the concept of competency still knows a rather detailed and fundamentally behavioral approach (McClelland, 1998). Barnett (1994) says that competencies described in a behavioristic way cannot provide guidelines for an educational curriculum because of the detailed level of described.

According to Messick (1994) further distinguishes between competence and performance. He believe that competence refers to what a teacher knows and what he or she can do under ideal circumstance, whereas performance is what is

actually observed under existing circumstance. Ideal circumstances provide an even playing field for all those being assessed, whereas existing circumstances create highly variable setting that can unfairly prevent some students' competence from being revealed.

Teachers are the corner stone of the educational process. Several movements sought to improve the quality of the educational process; consequently, concern was directed towards improving the curricula, the teaching methods, the tests, the syllabi, and the school buildings (Okey & Brown, 1985). However, one of the serious attempts was improving teacher-training programs in accordance with new educational and psychological fundamentals within one comprehensive movement called CBTE. This movement started after adopting competencies instead of knowledge as a principle to teacher education (Mar'y, 2003; West-Burnham & O'Sullivan, 1998).

This CBTE movement is considered one of the most important modern movements and most used in educational institutions, especially in the industrial countries (Houston, 1974). Qualified teachers are educated and trained in accordance with the most modern teaching / learning theories. This movement appeared as a response to traditional methods of teacher education and training (Minke, et al., 1996; Monjan & Gassner, 1979).The main purpose of adopting this method of teacher education and training is to train special education teachers on debate and dialog methods instead of lecturing and spoon-feeding methods (Al-Fatlawy, 2003; Dodle, 1973).

2.5.1 The Concept of Competency- Based Teacher Education (CBTE)

The word “competency” is identical with the relative of quality, efficiency, adequate, suitable or sufficient. Its dictionary meanings are ability, power, skill or talent to do something (Saeed & Mahmood, 2002). Hyland (1995, p.222) states “competence implies to the satisfaction of the basic minimum standards”. Instructional competencies are a set of ability, knowledge and belief which a teacher possesses and also use for an effective teaching and learning process”. In other hand, competency is the possession of sufficient skills and understanding to do a certain kind of work satisfactorily. Instructional competency refers to cognitive knowledge of the teachers, which entails effects on students learning. Page, Thomas & Marshall (1979) use the term competency-based education which describe as the approach in teacher education which goals to train teachers in specific classroom skills. It includes the use of instructional methods such as interaction process analysis, microteaching, simulation etc. Whitty and Willmott (1995) perceive competence as the task being clearly defined and criteria of success being set out alongside this. It encompasses intellectual, cognitive and attitudinal dimensions as well as performance. Competency is closely related to CBTE or PBTE. Houston (cited in Saeed & Mahmood, 2002) describes competencies in the sense of basic requirements for the successful completion of a teacher education program.

The definitions of competencies range from knowledge skills to workplace outcomes to personal attributes. Indeed, the “competency” label has been applied to such a wide range of concepts that it is hard to define the meaning of this label and to make useful comparisons among CBTE Movements (Boritz & Carnaghan,

2003). The competencies are the central educational concept within the school-based education programs. Competencies can be defined by describing competent professional behavior within the range of relevant job situations and the knowledge skills and attitudes it requires (Taconis, Plas & Sanden, 2004). However, Houston & Howsam (1972) defines competency as the ability to do something or cause expected results. Furthermore, Good (1973) defines competency as the ability to achieve desirable results with the least possible effort, time, and expenses. Boritz & Carnaghan, (2003) defined CBTE as the programs that state clear objectives for teacher education and clearly defines the desirable competencies for teacher education. In addition, the programs hold teachers accountable for reaching these levels. The educators responsible for conducting teacher education are held accountable for ensuring achievement of the stated objectives (Pires, 1974; Valli & Rennert-Ariev, 2002).

The researcher defines CBTE movement as the group of competencies, knowledge, abilities, and teacher personal characteristics strongly related to teacher performance. These competencies, in addition, define the standards of evaluation, which will be depended for evaluating teachers' achievement of desired objectives.

2.5.2 The Concept of the Training Program Based on Competencies

Bramley (1991) defines the training program as any organizationally initiated procedures which are included to foster learning among organizational members in direction contributing to organizational effectiveness. Goldstein (1993) precisely

referred training program as a systematic acquisition of skills, rules, concepts or attitudes that result in improved performance in another environment. Tzong (1998) summarized the training by saying that it (i) is a systematic process with some planning and control rather than random learning from experience; (ii) is concerned with changing concepts, skills, and attitudes of teachers treated both as individuals and as members of the various groups; and (iii) is intended to improve performance in the present and following job, and through this, it should enhance the effectiveness on the organization in which the individual or group works.

According to Glatthorn (1990) training programs give teachers ample opportunities to interact with other teachers and through such interactions knowledge exchanges can be affected. Glatthorn calls this type of interaction 'cooperative professional development'. Wollman-Bonilla (1991) states that for many of the teachers' surveyed, support and feedback gained in such interactions were very important for developing confidence in their thinking.

Shearron (1973) defines the training program based on competencies as the designs that require teachers to display a group of competencies that lead to achieving the desired education patterns on the students' part.

Elam (1971) defines the program as the program that depends on the pre-defined performance, and the trainees must display behaviors showing the acquisition of the desired skills. In addition, Bleacher (1991) defines the competencies based teacher education program as the program that includes a group of technological

competencies and skills related to performing teaching technologies and teacher training on teaching technologies.

Kennedy (1991) defines the program as a group of skills and designs that help the teacher achieve a good level of education. Furthermore, Thomson (1991) considers the program as the flexible design that allows the teacher to develop the desired competency to the better. David (2001) found teachers who receive training program in gifted education are more effective teachers of gifted learners than untrained teachers, the teachers' preparation programs needs to focus on training effective teachers of gifted learners.

However, there has been much debate about what competency-based training actually means, and several definitions have been suggested. One Australian is as follow:

“A way of approaching training that places primary emphasis on what a person can do as a result of training (the outcome), and as such represents a shift away from an the process involved in training (the inputs). It is concerned with training to industry specific standers rather than an individual's achievement relative to others in the group (Smith, 1999, p. 62).

The researcher defines the training program based on teacher competencies as the organized content including the objectives, the content, the educational activities and procedures, and evaluation that provide the teacher with the knowledge and the necessary skills that enhance the level of teacher's performance of the duties and roles that enable the teacher to perform duties the best way possible.

2.6 Theoretical Framework

The roots of competency based teacher education (CBTE) written in behavioral psychology and learning theories (McDonald, 1974, Morgan, 1984). Chesholim and Donald (1985) holds 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 behavior 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 e 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 (Abdulhamied, 1982, Fraser, 2001).

In other words, the theoretical base for this study comes from Bandura's social cognitive learning theory (1977, 1986, and 1997). According to the Bandura's theory, the process whereby the information we glean from observing others influence our behavior. According to Bandura as 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.

Bandura's social cognitive learning theory represents a more sophisticated behaviorism than its predecessor by adopting a truly cognitive behavior approach and addressing the interaction between how we think and how we act (Sternberg, 1995). Although Bandura acknowledged that behavioral theories had contributed greatly to our understanding of behavior, Bandura felt that earlier models of development were hampered by mechanistic approaches. The behaviorist approach is seen by exponents of this theory as undervaluing the potential of individuals to influence their own behavior (Quinn, 1991; Preston & Goodfellow, 2006).

Bandura (1986) sees behaviorism primarily as a theory of performance control, rather than of learning, since it clarifies how the learned imitative behavior can be prompted by others and a reward prospect. He argues that psychological functioning is neither driven by inner force nor buffeted by environmental stimuli.

Symbolic, vicarious, and self-regulatory processes assume a prominent role. In Bandura's model of reciprocal determinism, behavioral, environmental and other personal factors, are interlocking operational determinates of each other, with the level of influence of one or more another of these factors varying, depending on the situation (Moreno & Valdez, 2007).

According to Seng et al,(2003), the social cognitive learning is divided into two types: (i) Observational learning which emphasize learning by watching others; also called modeling; and (ii) Cognitive behavior modification (CBM) which utilizing 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, and 1997) identifies a number of component processes that will determine that outcome of observed behavior involving factors, other than reinforcement. Bandura suggested 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.

(1) Attention Process: the attending behavior of the observer is on of the main component functions of the observational learning processes. If important nuances of the model's behavior are left unnoticed then the observer will fail

to include them when he/she attempts to reproduce the modeled behavior. Attentional processes include such variables as rules for establishing attention by informing the subject with an array of models if fine discriminations are to be made, repeating presentation of components of complex behavior. Bandura suggests that attention can be encouraged by incentives such as verbal and non-verbal responses. However, there is competition for students' attentional processes in the ward environment because of the dominate nature of ward routine which, rather than encouraging the exploration and learning about patient individuality and interpersonal skills, can divert their attention to the practical demands of the ward, succumbing to a conservative occupational socialization.

(2) Retention process: observational learning is greatly influenced by retention of knowledge. People expecting to perform an observed task will retain the input by imaginal and verbal systems which repeated exposure (Bandura, 1977). Retention processes include such variables as symbolic coding of component of complex observed behavior, cognition organization, and covert and overt rehearsal. Symbolic coding is the process of developing short key phrases that are highly descriptive of the operations to be recalled. Bandura (1977) suggests that coding modeled events in concise symbols and meaningful verbal codes can be very effective way of retaining observed knowledge. However, faulty coding and storage of knowledge will result in problems accessing and retrieving knowledge (Hars & Calmels, 2007).

(3) Motor reproduction processes: Bandura noted that symbolic coding produces internal models of the environment that guide the observer's future behavior. The cognitive guidance of behavior is crucial for Bandura, because it explains how modeled activities are acquired without performance. But the cognitive activity is not autonomous; stimulus and reinforcement control its nature and occurrence. Bandura divided production into (i) selecting and organizing the response element and (ii) refining the response on the basis of informative feedback. The smooth operation of the production process is based on the assumption that the necessary response elements have been previously acquired (Snowman and Biehler, 2003).

(4) Reinforcement and motivational processes: the final sub-process refers to reinforcement and motivational processes. Incentive to perform is provided by three sources: external, vicarious and self-produced. External incentives include reward, when modeled behavior is met with valued outcomes, but negative feedback will inhibit performance (Bandura, 1977). Vicarious reinforcement is the result of learning by observing others successes and failures (Bandura 1977). Bandura (1977) highlights the importance of vicarious reinforcement: 'Observed reinforcement not only informs, it also motivates'. The result of early adopters demonstrating the advantages of new practices to the potential adopter is the accelerated diffusion of those practices. According to Hartjen (1974) the process of vicarious reinforcement has been investigated by Bandura who concludes that an observer is reinforced vicariously through the reinforcement contingencies that support the model's behavior.

Schunk and Hanson (cited in Snowman & Biehler, 2003) confirmed Bandura's contention that an individual's self-efficacy can be enhanced by watching a competent model. Nine to twelve-year-old children whose math achievement was below the thirty-fifth percentile on a standardized test watched a videotape of a similar child receiving instruction in how to do subtraction-with-regrouping problems (i.e., borrowing) and then solving similar problems. In comparison to a group of similar children who saw a videotape of a teacher solving subtraction-with-regrouping problems and a group that did not see a model, those who saw a peer model has significantly higher self-efficacy.

Mariage (cited in Elliot et al., 2000) illustrates that modeling is an effective instructional technique even among those with no professional training or teaching experience. The researcher examined the teaching behaviors of two groups of college seniors who volunteered to teach a reading comprehension strategy to primary and elementary grade students with learning disabilities. The strategy was called POSSE, which stood for predict what ideas are in the story, organize one's thoughts, search for the structure, summarize the main idea, and evaluate the result. On the basis of how many ideas students recalled from a story they read, the teachers were divided into low-gain and high-gain groups. The low-gain teachers made far fewer modeling statements of the POSSE strategy than did the high-gain teachers.

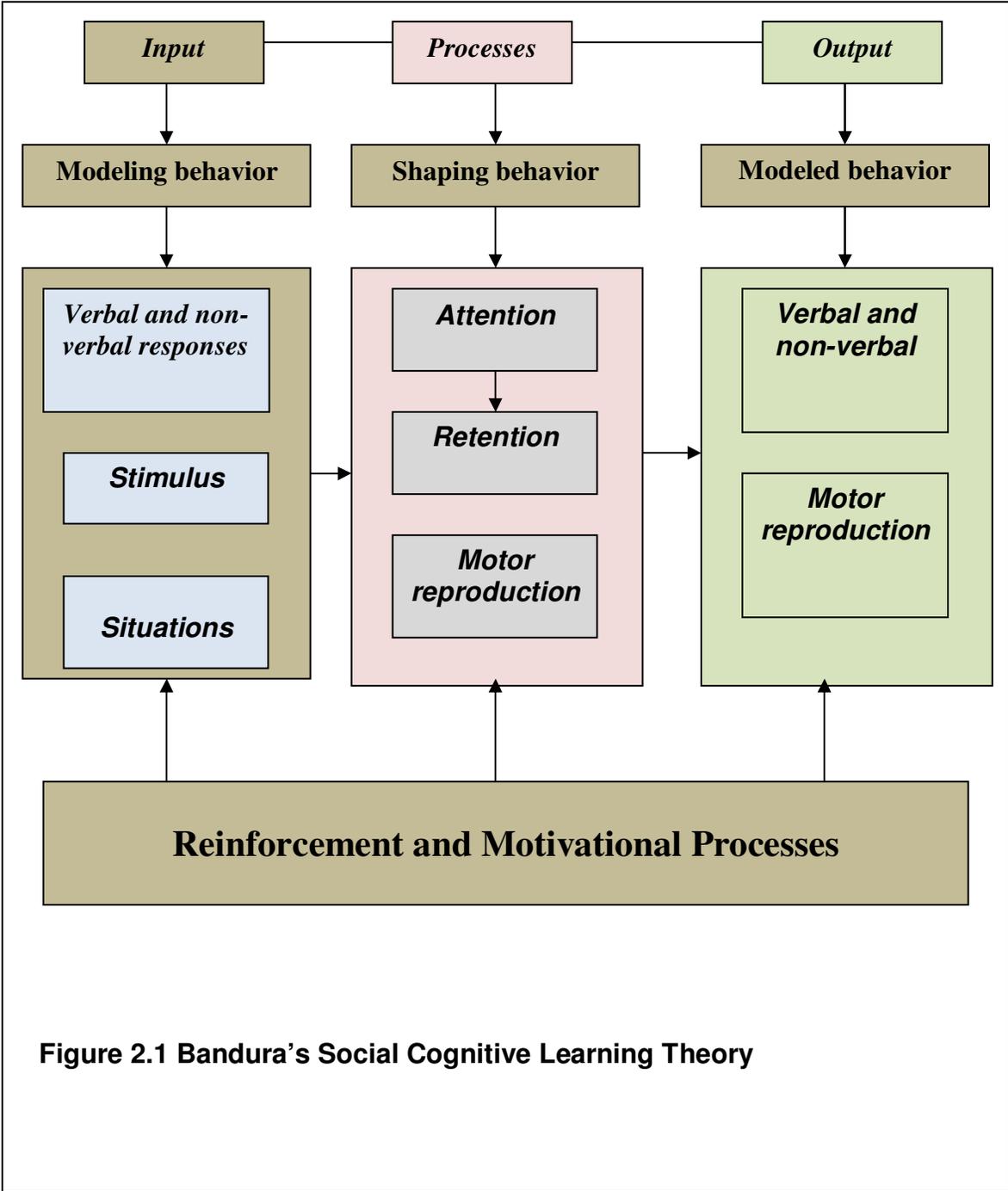


Figure 2.1 Bandura's Social Cognitive Learning Theory

Figure 2.1 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.

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 they may learn to be discriminating in their observation teacher models. Thus, this study aims at constructing and measuring the effects of a training program based on instructional competencies for resource room teachers.

2.7 The instructional Competencies of the Training Program Module

In this section an attempt is made to present the various instructional competencies that are proposed in this study. These competencies include planning, instructional and classroom management, evaluation and professional and personal competencies:

2.7.1 Planning Competencies

Planning competencies are considered the starting point for training, especially because special education teachers take a major responsibility in planning the children's curricula with learning disabilities. Planning in instruction is defined as the organized pre-thinking of what the teachers want to perform in order to achieve the educational objectives and other certain instructional objectives. Some scholars defined planning as the teachers' pre-image of the instructional procedures and methodologies that they refer to in performing and organizing the activities in the classroom in order to achieve certain objectives (Al-Fatlawy, 2003).

Individualized education is considered the most important factor in the educational process. Individualized education means developing a special curriculum for each

individual child with special needs, and this program is known as the Individualized Education Program (IEP). This program is considered the basis for all the educational and instructional activities. Educational laws and regulations stated the necessity of planning an individualized educational program in order to provide each child with special educational services (Lewis & Doorlag, 2003).

The IEP determines the current performance level of the child, including academic achievement, the social adaptation, the professional skills, self-care and psychometric skills. It also determines the current performance level of the child requires collecting data about the student in various ways, such as test application, interviews, and taking notes in order to determine the weakness and the strength points of the child (Cartwright et al., 1981; Smith, 2004).

The Individualized Educational Plan (IEP), on the other hand, is a comprehensive plan for the educational activities organized by a specialized team to meet the student's needs. The IEP includes the objective set for the child, the strategies, and the dates for achieving them. The IEP includes the following elements:

- (i) General information about the child joining the resource room.
- (ii) The initial evaluation/screening, which is done by multidisciplinary team. This team usually includes the regular teacher of the child, the teacher of the resource room, the counselor of the school, doctors and speech therapists, and the parents. This team conducts certain tests, such as, intelligent Quotient test (IQ), (Stranford-Binet), wechsler Intelligence Scale (Wisc) for children, the Pupil Rating Scale/Screening for learning Disability (Al-Waqfy, 1998).

(iii) Setting up criteria for the objectives to check the achievement of long-term objectives. These criteria are usually stated in the form of a percentage (%) or a number.

(iv) Determining special educational services that will be presented to the child, and determining the ability of the child to participate in the individual educational program.

(v) Determining the duration of the educational program and the set out date.

Finally, the Individualized Instructional Plan (IIP) is a short-range plan the teachers put forward for one class. This plan is also considered one of the most important plans the teachers need to facilitate their work. In addition, it also facilitates the process of selecting the necessary skills, the proper educational methodologies and the evaluation process (Nougaret, Scruggs & Mastropieri, 2005).

In order to achieve the short-term objectives in directing the instructional process and the process of evaluation, the objectives must be related to an annual objective. They must also determine the desired behavior and the success criteria.

The IIP is usually derived from the IEP. In the IIP, the teachers must determine the educational content they will teach, including the ideas, the knowledge, the values, the attitudes, and the skills through analyzing the content. The teachers must also determine the methodologies of achieving the objectives and the level of performance expected from the learners. The IIP includes the following:

(i) The behavioral and educational objectives.

(ii) The proper instructional procedures and the activities that will facilitate the achievement of the objectives.

(iii) The instructional methodology (Al-Waqfy, 1996; Hunt & Marshall, 2002).

2.7.2 Instruction and Classroom Management competencies.

Instructional and classroom management competencies represent the executive dimension of the learning process.

1. Instructional Competencies: it means all the conditions that the teacher uses in these teaching situations and also the procedures that are made by the teacher to help the students to fulfill the educational objectives (Hamdan 1984). Furthermore, Al Nuaimi (1993) see that teaching is a set of activities which is done by the teacher to help the student to achieve the educational objectives.

There are some elements of the instruction process:

(i) Teaching skills: include the pre teaching skills at the beginning of the lesson through linking the previous lesson with the new one by using motivation, individual learning and taking into consideration the individual differences using the feedback, task analysis and evaluation (Lerner, 2003; Mercer, 1992).

(ii) Content and educational activities: The choice of educational content is used according to the educational objective that is derived from the society. When choosing the educational content and activities for students with special needs therefore it is necessary to analyze the teaching content. It helps the teacher to develop post and pre-tests to determine the performance level and show the

progress of students, so it is necessary that the content must be comprehensive for students with special needs by focusing on the cognitive, social and emotional aspects and then choosing easy tasks to be done by the students (Kaplan, 1996).

(iii) Instructional strategies: represent the teaching procedure that the teacher follows to achieve specific teaching outputs. The instructional strategies play a major role for students with special needs because it takes into consideration the individual differences among students, it demands modification in ordinary curricula that are suitable to the students with special needs, it indicates the role of the teacher and the students, and it gives students the chances to take part in the teaching process (Lerner, 2003; Hallahan & Kaufman, 1991).

(iv) The teaching aids: The effective teaching needs using the teaching aids for students with special needs for many reason such as, the need for teaching aids to teach students with special needs, concepts that they are learned, the teaching aids are very important to draw student intention and raise motivation, and the teaching aids give students self-confidence and encouraging students to continue learning (Ellett, 1993; Smith, 1994).

(v) Teaching Environment. There are two types of teaching environment for students in general:

1. Material environment: there are characteristics to indicate suitable teaching environment for students' material such as, making available of the tools and educational aids which are in the IEP, making sure of the tools and aids, knowing how to use the aids and tools, and choosing of educational aids (Ysseldyke & Algozzine, 1990).

2- Human environment: it means organizing and distributing students during the instruction situation. There are three main groups of students with special needs

(i) Large group instruction: The students with special needs get the instruction together, but the disadvantage that the teacher can't cater for the individual differences. So it is advisable to use this group to perform group work such as watching television (Mercer, 1992);

(ii) Small group instruction: The number of students between 3-7 in each group, the advantages of this method help students to learn by participation and encouraging students to depend on themselves (Sands & Kerry 1982);

(iii) Individual Instruction: It means indicating the special tasks and the skills to fulfill the individual needs, abilities and the learning level. The individual instruction for students with special needs depends on the following steps such as indicating the (a) performance of the students (b) the educational objectives, (c) organizing instruction plan (d) indicating programs administration, (e) choosing the suitable aids and materials, (f) Indicating the instruction steps, and (g) evaluating students' progress (Salvin & Madden, 1984; Snell & Browen, 2006).

2. Classroom Management Competencies: It is one of the important factors for teacher successful accomplishment of the instructional process, since successful classroom management is a proof of teachers' qualification. Classroom management includes the leadership and supervision operations in addition to the efforts of the educational process parties in the classroom (Kraker, 2000). Numerous factors influence classroom interaction. Some of these factors are as follows:

(i) The first factor is related to the classroom environment, size, and number of students, their characteristics, in addition to methods of communication while performing instructional activities.

(ii) The second factor is related to the teacher-student interaction while each is performing the role assigned for the educational situation.

(iii) The third factor is related to the student-student interaction through relations, methods of communication between students, such as friendship and social growth (Tileston, 2004d).

According to Gilberts and Lignugaris-Kraft (1997) the classroom management competencies address the teacher's ability to manage the educational environment, and directly manage and assess students' classroom behavior. Classroom management competencies are divided into four categories. Two categories address the educational environment: (a) arrangement of physical environment to facilitate student management, and (b) formulation of a standard for student behavior in the classroom, and two categories address teachers' management and behavior assessment; (c) implementation of strategies to increase appropriate behavior or to reduce inappropriate behavior, and (d) assessing or measuring the effectiveness of the implemented strategies.

2.7.3 Evaluation Competencies

The evaluation process is considered necessary to determine the educational objectives achieved. Benjamin Bloom defined these as "Judging the value of thoughts, practices, and methodologies using quantitative or qualitative criteria to

determine the competency, accuracy, and the effectiveness of things” (Borich & Madden, 1977). However, Al-heela (1999) classifies kinds of evaluation as follows:

(i) Pre-evaluation: This evaluation is used to determine the level of preparation for learning to recognize the weakness and strength areas in students’ performance; thus, screening the educational problems the student is suffering from.

(ii) Readiness evaluation: This evaluation is used to determine the student’s readiness to learn a specific subject.

(iii) Placement evaluation: This evaluation is used to assign students to classes that suit their mental abilities, attitudes and educational interests.

The evaluation process has a great effect on the educational process; since evaluation provides students with feedback that explains the level of progress they have achieved step by step (Spinelli, 2006). Evaluation also helps the resource room teacher to take the appropriate decision about keeping the students in the resource room or transferring them to regular classrooms. Evaluation also helps the parents see the level of progress and educational achievement their children have accomplished, which makes the parents more capable of helping them in cooperation with the resource room teacher (Borich, 2000).

2.7.4 The Professional and Personal Competencies

The personal competencies expires as straightness in behavior and have a good reputation and moral constitution and equanimity and conduct wisdom and trust on others also respect a moralize and belonging to the profession and the ability of leadership, a democracy and make decision in the right time (Hadrami,2003).

But the professional competencies means the ability of doing duties which connected with the class management and the relation with local society also it ability contain the knowledge, skills and attitudes so, there are knowledge, performance, consequences and affective competencies (Taconis, Plas & Sanden 2004).

Al Nasiri (2002) indicated that the professional competencies divided into three types:

1- Intellectual competencies: means the gained abilities with teachers who have mental imagination for all things around him in the school and interior and exterior variables and the relation between them and the effect in school works and also in development and learning students in school. So found the teachers who have these competencies be more efficiency in creative ideas and feels in school problem before it happening so as to put the solutions, and therapeutic strategies before the problem happened.

2- Humanity competencies: indicate the group of gain ability for teacher as educational leader who have ability in doing effective interaction between him and students on other arrangement between teachers, management and local society

also his ability the efforts in his school to realize the educational aims expected also his ability to create a democracy atmosphere in his school to spirit cooperation and exchange of views and experience in the family of school.

3- Academic/ technicality competencies: indicate to specialize cognitive in any field of science and also efficiency use this knowledge in a good way and in most cases, the teachers gained it from studying, experience and training. Ibraheem (2001) indicated that the most important characteristic in professional competencies that it distinguished by technicality knowledge, the ability of analysis to use the artist tools to do the work.

2.8 Resource room Program

The resource room is the primary source of alternative help for students with learning disabilities. The amount of time students spend in these rooms varies greatly (Kaplan, 1996). The least restrictive environment for students who have mild disabilities is the regular classroom. However, some students may require more intensive one-on-one teaching. Often, the type of educational requirement is delivered through the resource room. Resource room has been defined by Wiederholt, Hammill, and Brown (1983) as “any instructional setting in which a person (usually the resource teacher) has the responsibility of providing supportive educational related services to students or to their teachers”. (p.3). The U.S. Department of Education (1990) describes a resource room as a setting where students “receive special education and related services for 60 percent or less of school day and at least 21 percent of the school day. This may include resource room with part-time instruction in the regular class. While no one advocates

determining the exact combination students reaming in regular and special classes. (Smith, Finn, & Dowdy, 1993). Whittaket and Taylor (1995, p. 249) defined the resource room as “a setting other than the regular classroom to which students with mild disabilities go for up to 50% of their educational programs”.

According to Wiederholt, Hammill, and Brown (1983, p.4) ”resource room is any setting in the school to which a child comes to receive specific instruction on a regular scheduled basis, while receiving the major part of his/ her education elsewhere (usually in a regular or special class program). According to Lerner (2000, p 158-160) “A resource room is an educational setting that provides assessment services and remedial instruction to students with disabilities on a regularly scheduled basis for a portion of the school day”. But, Friend and McNutt (1984, p150-155) have defined a resource room as “a structural arrangement in which student with disabilities receive some instructional assistance, although most of their educational program takes place in general education setting”. A resource room is most frequently multi-categorical; therefore, it can accommodate students displaying mild or moderate disabilities. The time each student spends in the resource room is based on his or her needs and usually ranges from three hours per week to half of the school day (Bender, 1996). Traditionally, instruction focuses on academic areas in which students display severe skill deficits; however, non-academic areas can be addressed, including social skills, job finding and maintenance, and appropriate use of leisure time. Regardless of the skill being addressed, instruction will be more effective if it reflects the cooperative efforts of secondary teachers and the consultant (Schloss, Smith, & Schloss, 2001).

According to the U.S. department of Education (1995), resource rooms' students spend 21 to 60 percent of their time outside the regular classroom. The resource room offers flexibility in terms of the curriculum offered; the time students spend in the program, the number of students served, and the teacher's time.

The resource room is a supporting element for regular education instruction (Lerner, 2000). Care must be taken in scheduling students for resource room programs. For example, if the pupil enjoys physical education, the teacher should avoid pre-empting this period for the resource room session. In addition, the regular classroom teacher must be consulted about the optimum time for the student to leave the classroom. So, resource room should be pleasant and should have an abundant supply of material. Because students with learning disabilities often have short attention spans, it is wise to provide a change of pace by planning several activities during a teaching session (Kaplan, 1996). Furthermore, several researchers have found that resource room teachers listed lack of time to fulfill role functions as primary constrain on interaction between regular and special educators (Whittaket and Taylor, 1995).

The resource room teacher is located in the same building with regular classroom teachers, administrators, and students, and therefore may be readily accepted by them. The resource room teacher's schedule is flexible so that he or she can collaborate with the classroom teacher. However, resource room has the following characteristics:

- Resource room teachers enable students with learning disabilities to benefit from specific instruction while remaining integrated with their friend and peers in school.
- Resource room is flexible enough to fit the level of the schooling. Primary school resource programs can be very different from those serving secondary school students.
- The resource room teacher should be a highly competent and personable individual who is able to coordinate efforts with classroom teachers, make educational and behavior assessments, design and implement individualized instruction, and work effectively with parent and families.
- The resource room should be attractive and well organized. Since the students in the general education must be related to the regular class and instruction in the two settings should be coordinated. (Lerner, 2000, 2003; Khuzai, 2001).

Mercer (1997) stated that the role of the resource room teachers demanded a highly competent, personable individual able to work effectively and harmoniously with regular education teachers and ancillary staff. Wiederholt, et al. (cited in LaMelza, 2003) divided the responsibilities of the resource room teacher into three major categories: (1) assessment, (2) teaching, and (3) consulting.

McNmara (1989) indicated that the role of the resource room teachers was more complex than often realized. In survey of 228 general education teachers' view of

the resource room teachers' role, over 50% of the respondents rated as vital: (1) attend parent conferences,(2) meet informally to discuss student progress, (3) provide remedial instruction in the resource room, (4) provide information on behavioral characteristics, (5) provide academic assessment data, (6) provide material for classroom use and, (6) provide written report activities and progress (Voltz, Elliott, and Harriss, 1995). Furthermore, the success of the resource room program depended on the competency of the resource room teacher, the cooperative and interaction with the regular education teachers, and the support of the administration (Ellett, 1993).

2.8.1 The Concept of Resource Room Program in Jordan

The resource room is the best educational alternative used by the MOE to provide special education services for children with learning disabilities and slow learners. A resource room is a class attached to a regular school with an area of 30 square meters to 48 square meters and equipped with the appropriate furniture and the appropriate teaching aids and games for students with learning disabilities. They come to the resource room for different periods of the day for individual education program. Students spend most of their time in the regular class and come to the resource room for part of the day to receive special education in arithmetic, reading, writing, social and language skills. On the other hand, some students spend most of the day in the resource room and part of the day in the regular classroom with their peers receiving education in social drama and music (Al Hassan, 1992).

The number of students coming to the resource room is 20–25 from the second, third, and fourth grades. Students are divided into study groups according to the level of their performance in reading, writing, language skills and arithmetic. The resource room serves three to four groups and they receive 20–25 classes of Arabic language and mathematics weekly (Al Nabteety & Jaber, 1996).

2.8.2 Types of resource room:

D'Alonzo, D'Alonzo and Mauser (1979); Wiederholt, Hammill, and Brown (1983) identified five separate types of resource room programming for children with disabilities:

(i) The categorical resource room, as the name implies, serves children with special needs, such as mental retardation, learning disabilities, behavior disorders, sensory impairments (vision/ hearing), communication disorders, and physical disabilities. The idea behind this model is that these groups of children have similar learning needs which can be met in a common setting. (Smith, Finn & Dowdy, 1993).

This model is attractive to school administrations and school personnel, they like this approach because it enables students with disabilities to be grouped for instructional purposes. Parents often prefer this resource room model because it separates students with different disabilities. An operator may feel more comfortable accepting the fact that her child has specific learning disabilities and is being taught in a resource room with children who have similar learning needs as

opposed to being educated with children who are mentally retarded (Smith, Finn, & Dowdy, 1993; McNamara, 1989).

Regardless of its popularity, there are problems with this model because it is based on a diagnostic label. The idea that children who have learning disabilities, mild mental retardation, mild behavior problems, and conditions that result in mild disabilities learn under very different conditions has been challenged (Hallahan & Kauffman, 1991; Polloway et al., 1990).

(ii) The cross-categorical or “interrelated” program is another popular resource room model used today. In this model, teachers may serve children from more than one disability category. Students may be taught in distinct groups during the day (i.e., children with mental retardation during first period, and then students who have learning disabilities in the second period); or students may be grouped together (students with learning disabilities, mental retardation, and behavior disorders) so they can work on common instructional goals like reading (Wiederholt, Hammill, & Brown, 1983; Smith, Finn, & Dowdy, 1993).

(iii) The non-categorical resource room serves as resource room for all children with disabilities in states that do not recognize categorical distinctions (Bender, 1996; D’Alonzo, D’Alonzo, & Mauser 1979). The non-categorical resource room model designed to serve children with different disabilities who have similar learning and behavior characteristics. This model may be preferred by some professional due to the absence of labeling. Many administrators prefer this model

because it is often a more cost-efficient way of serving small numbers of students with different disabilities. Unfortunately, some parents oppose this approach because they do not want their children commingled with children who have different types of disabilities (Smith, Finn, & Dowdy, 1993).

(iv) The specific skill resource room program is unique in that training provided under this model is specific to a content area, often math, reading, or speech. This approach is less frequently used since it was primarily designed for children who do not have disabilities. Teachers in this program usually have special certifications in the area of remedial math, reading, or speech. Since this model typically serves non-disabled children, the cost for these services must be paid by the school district and are not usually reimbursable by federal monies (D'Alonzo, D'Alonzo, and Mauser, 1979; Wiederholt, Hammill, & Brown, 1983).

(v) The itinerant resource room model is programs in which students visit to the resource room are not scheduled on a daily basis. Rural areas with very small schools in difficult to reach locations may provide one resource teacher for several schools, which he or she visits every other day (D'Alonzo, D'Alonzo & Mauser, 1979). The itinerant resource room model differs from the others in that teachers move from location to location to provide services to students in resource room. An example would be a small district with a few children who had mild disabilities spread throughout several elementary schools. Rather than requiring all of the students to attend the same school, or employing a teacher for each school to instruct only three or four students, one teacher travels from school to school

providing resource room services. This model is extremely effective with children who have low-incidence disabilities, such as visual and hearing impairments. In another hand, the Advantages of the itinerant model include: (i) one teacher can serve many children ;(ii) low-incidence disabilities can be served cost efficiently; (iii) students are able to remain in their “home school” (Rex, 1989).

According to Smith, Finn, and Dowdy (1993), the major disadvantage to the itinerant resource room model is that itinerant teachers often feel like they do not belong to any school. By traveling from school to school they have a difficult time establishing collegial relationships. Also, students may need assistance from the itinerant teacher when she or he is at another school.

Although each of the five types of resource room described are unique, there are some commonalities found in all five:

- Students spend part of the day in regular classrooms and part in the resource room.
- Resource room serves small groups of students at any one time.
- Individualized instruction is the primary mode used in the resource room.
- Extensive collaboration between the special education teacher and regular classroom teachers is critical. (Smith, Finn, & Dowdy, 1993).

However, in Jordan there are two types of resource rooms, as presented below: (i) resource room for students with learning disabilities. This type of resource rooms

distributed within Government Schools in Jordan reached to 510 resource rooms, and the number of students who attach to this type is 10160 students; and (ii) resource rooms for gifted and talented students. The number of resource rooms are 25 and the students are 742 (Ministry of Education, 2006).

2.8.3 The resource room teacher

The primary function of a resource room teacher is to identify alternative instructional strategies so that a student can be successful with the mainstream curricula. Hallahan and Kauffman (1991) have identified five distinct roles for resource room teachers regardless of the types of disabilities represented in the class. These roles and responsibilities include:

- Assess the student's need for instruction and management;
- Provide individual and small group instruction either in the regular class or in a separate resource room;
- Offer advice and demonstrate specific techniques or materials to regular teachers;
- Make referrals to other agencies when a student requires additional services;
- And work toward total integration of the student.

A major role of the resource room teacher is to interface and communicate with regular classroom teachers. The critical factor in the success of resource room, to meet the needs of students, is this communication factors. Without communication,

regular educators and special education teachers are not aware of what the other is doing with a particular child. This could lead to confusion, and the end result could be lowered achievement rather than improved achievement. Another important role for the resource room teacher is to communicate and work closely with the student's parents. Parent involvement can greatly enhance the success of students with disabilities; special education teachers need to encourage, facilitate, and reinforce this involvement. When students with disabilities are integrated into classes with their peers, it may be easy to forget that their child is receiving specially designed instruction. When consistent and objective lines of coordinated communication are provided among regular teachers, special education personnel, and parents, fewer problems are likely to develop that can be attributed to a lack of information. (Smith, Finn, & Dowdy, 1993; Keefe, 1996; Haight, 1985).

Norlander, Shaw, and McGuire (1990) designed a survey to identify the needed competencies of both administrative and direct service personnel in directing implementing postsecondary 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. Whereas, the National Joint Committee on Learning Disabilities (NJCLD, 1998) suggested 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.

The success of resource room depends to a large extent on the professionals who manage it. The resource room may be staffed by the consultant teacher who also provides direct and indirect services to teachers and students in secondary classrooms. It might also be staffed by a teacher whose sole responsibility is to provide services in this setting. Either way, individuals who assume the responsibility must be effective teachers, as much of their time is devoted to providing direct services to students' disabilities. As such, they must be skilled in the use of teaching strategies that enhance student competence in a variety of domains. Unlike their elementary counterparts, the teachers in the resource room may also need to be highly skilled in the content areas. Students assigned to the resource room may display deficits in subject areas as discrete as algebra, geometry, biology, or chemistry. A solid background in one or more content areas improves the effectiveness of resource room teachers (Schloss, Smith, & Schloss, 2001).

The teachers in a resource room must also be curriculum specialists, thoroughly familiar with all aspects of the curricula being in the school. In addition, they need to be aware of and able to locate alternative curricula for students who need them, for example, a student may not be benefiting from the home and career curriculum being implemented in the school. Therefore, the teachers may need to locate a curriculum with a more functional orientation. On a related note, teachers must be skilled in curriculum development. They may need to assume leadership roles in the development of a functional curriculum in the event that an appropriate one cannot be located (Frieman, 2001).

Hudson et al. (1987) identify the competencies for teachers of students with learning disabilities. A thorough literature search of the past 20 years resulted in 16 competency statements in five areas: general and special knowledge, planning and evaluation, curriculum content, clinical teaching strategies, and behavior management.

Teachers in resource room must also be competent administrators. They are responsible for processing referrals, writing reports, maintaining records, arranging schedules, ordering materials, attending meetings, and organizing and managing the learning environment (McNamara, 1989).

They may also need to be counselors. In addition to academic difficulties, or perhaps as a result of them, secondary students with disabilities frequently experience problems in their relationships with peers and authority figures. Students may also demonstrate limited confidence in their ability to achieve academic, interpersonal, or vocational goals. In addition, colleagues may need to vent their frustrations or be reassured that they are capable of handling challenging students and unique situations. Teachers in resource room should be skilled in counselling techniques suitable for use with both of these groups (Schloss, Smith, & Schloss, 2001).

Furthermore, teachers who provide resource room services need to be public and human relation experts. They are in frequent contact with administrators, colleagues, students, parents, public officials, and representatives of outside

agencies. They may be called on to explain, confront, counsel, request, or advocate. Regardless of the nature of the interaction, they must conduct themselves in a professional manner (Keefe, 1996).

The resource room teacher facility academic skills in the regular school to learning disabilities students in additional assessment the resource room teacher has become as itinerant teacher or counselor teacher or evaluation teachers (Sartawi & Suseam, 1987; Al Smadi, 1996).

According to Khuzai (2001); McNamara (1989); Sartawi and Suseam (1987) the teacher in the resource room has many tasks to perform and competency:

- **Educational evaluation:** the resource room teacher is responsible for evaluating the academic and behavioral skills of the students. The aim of the evaluation process is classification referring and planning educational programs. The evaluation process should be connected to the curriculum and the evaluation of students is done by standardized testing. In the light of this educational plan and interference plans are introduced to remedy the areas of weakness through focusing on the areas of strength so that the teacher of the resource room should have the ability to evaluate the academic skills in general or the specific educational situation.
- **Communicating with teachers in regular classrooms:** there is an agreement on the importance of communication between the resource room teachers and regular teachers. As we know that the students of the resource

room spend most of their school day with regular teacher in the regular classroom so that the teachers should work competencies operatively.

- **Teaching:** most of resource room teachers spend their time on teaching. The teachers focus on direct teaching which demands to find the areas of strength and weakness and the ability to use and develop the educational aids. The resource room teachers have to concentrate on two methods of teaching the basic skills to the students at the primary level and follow the suitable educational serial to improve the areas of weakness so that the students could acquire the basic skills impairment the academic progress.
- **Counsel:** the resource room teachers should keep advisory dialogue with general educational responsible to supply the feedback to the regular teachers. The resource room teachers should provide the regular teachers with proper models of teaching special needs children as they do there tasks by counselling.
- **Communicating with the parents of learning disabilities child:** it is considered a crucial role which is done by the resource room teachers. The teacher should hold regular meetings with the parents to discuss the educational situations and regular their opinions about the progress achieved by the students this is done by making a good relation between the teachers and parents.
- **Planning:** the teachers of the resource room plan IEP according to the needs, abilities and problems of the students by indicating the performance level then writing the individualized educational programs.

According to Evans (1981) the roles of resource room teacher including the following:

- Planning: screening, observing, selecting and ordering material and attending staffing.
- Diagnosis: administrating, scoring and interpreting tests: writing educational plans based on finding.
- Instruction: providing direct instruction, tutoring, supervising aides in teaching activities.
- Assessment: retesting: recording continues measurement: reevaluating the student's program.
- Communication: acting in a consultative capacity when mild learning and / or behavior problems arise in the regular classroom.
- Clerical: keeping daily work up to date: making materials: correcting paper: filling out reports and forms
- Miscellaneous: performing school chores such as playground duty.

2.8.4 The Teachers' Roles in the Resource Room in Jordan

The MOE in Jordan gives obvious attention to preparing the necessary staff for work with learners with learning disabilities. The MOE signed an agreement with the national counsel for learning disabilities/Princes Sarvath College/ Balqa' University for Applied Sciences, in the field of learning disabilities. In accordance with this agreement, the College provides annual training for teachers working in the resource room. Upon completion of a training course containing classes in

learning disabilities, the teacher is awarded a High Diploma in the field of learning disabilities. The MOE, in return, coordinates with the Counselling and the Supervision Department at the University of Jordan in order to prepare for training courses held for teachers working in the resource room. In addition, The MOE holds special basic course in the field of special education and the field of learning disabilities (AlNabteetie & Jaber, 1996). The MOE also provides special education teachers with scholarships at the Jordanian and the Arab Universities for MA and PhD levels.

The teacher of the resource room in Jordan performs numerous roles described below:

- Performing the necessary diagnosis of the children with learning disabilities.
- Measurement of the forms of the learning disabilities.
- Coordinating with regular class, the parents, the school administration, and the educational counselor in order to identify the case and the need for joining the resource room.
- Providing advice and counselling for the regular class teacher about the methods and the appropriate material for children with learning disabilities.
- Providing help for the regular class teacher in order to preparing programs and activities appropriate for the students after coming back for the resource room to the regular class in addition to follow up practices.
- Preparing the individual educational therapy plans according to the need of the students (The Ministry of Education, 2006).

2.8.5 Teaching students with learning disabilities

The philosophy of teaching in the resource room is based on a fundamental presumption that children with learning disabilities can benefit from the educational curricula and programs provided for the regular students with additional educational help and care for the difficulties they have. Consequently, these students will not deny the opportunity of learning the regular class curriculum due to the difficulties they have with some basic skills such as, reading, writing and mathematics, whether all or only one. After all, putting all these students outside the regular class and teaching them using alternative curricula will not benefit the majority of them, so the resource room were opened to give the opportunity to children with learning disabilities to benefit from the curricula designed for regular students if they and their teachers were provided with the necessary help to enable them to combine between the two curricula through the resource room (Al Ma'aitah, 1999; Al Hassan, 1995).

Children in the resource room receive counselling services the same as regular students in the school since the relation between the counselor and the teacher of the resource room is very close. In addition, the resource room is used to carry out the methods of behavior change for all the students (Abu Alia & Mulhem, 1998).The following are the basic consideration teaching in the resource room is based upon:

- Putting the students in the resource room for part of the day will help them to socialize with their peers in different situations and will help them to acquire skills and experience that facilitates their life socializing with regular

people in the community.

- Students keep their identity by staying with their peers and this reduces the chance of considering them abnormal.
- Children with learning disabilities get the opportunity of receiving intensive educational services in the resource room; however, this is not available in the regular classroom.
- The teacher in the resource room works with the regular class teacher to re-enforce his/her role working with children with learning disabilities in the regular class.
- Flexible planning offers the opportunity for more children with learning disabilities to receive the varied service offered in the resource room (Al Ma'aitah, 1999; Al Hassan, 1995).

The resource room contains numerous activities necessary for helping children with learning disabilities to help them overcome life difficulties. The resource room also has numerous activities that help both the teacher of the resource room and the regular class teacher to effectively deal with children with learning disabilities and to understand their needs and to recognize the weakness and the strength areas that they might encounter (Al-Khateeb & Hadidi,1994). The resource room in Jordan also includes the following:

- (i) Instruments and tests to diagnose the difficulties the students might have, and to determine the nature of the therapy program needed.
- (ii) Educational material suitable for the teaching methods and techniques.

(iii) Teaching students in study groups takes into consideration the level of difficulty for each group.

(iv) Activities and instruments that stimulate the learners; thus, guarantees their cooperation and participation.

(v) Tables planning the periods the students spend in the resource room and in the regular classroom.

(vi) Planning between the regular class teacher and the teacher of the resource room (The Ministry of Education, 2006; Al-Waqfy, 1996).

2.8.6 Working Mechanism in the Resource Room in Jordan

Work in the resource room in Jordan is based upon the principle of early intervention, which aims at providing the support and educational services for children with learning disabilities and children with handicapped (Al Khateeb & Al Hadidi, 1994). It is also based upon providing educational and therapy services for children with learning disabilities, especially those at schools with programs parallel to regular educational programs designed for regular students. Work in the resource room is a comprehensive process composed of gradual steps the most important of which is diagnosis, especially because this process is the elementary step through which we can identify the groups of children with special needs and can benefit from these programs. This process, furthermore, requires the availability of evaluation instruments to identify those students. Students are chosen to join the resource room at the beginning of the school year by a committee formed for this purpose. This committee is composed of the principal, the teacher of the resource room, the educational counselor, and the class teacher

in cooperation with the supervisor of the level whenever possible. After that, necessary diagnostic tests are conducted by the teacher of the resource room to determine the weakness and strength points of the students in the fields of reading, writing, math, and language skills. The teacher of the resource room then prepares the IEP depending on the results of the tests (Al Nabteetie & Jaber, 1996, Catharine, Whittaker, & Taylor, 1995).

The educational plan is a comprehensive IEP that includes educational activities put forward by a group of experts to encounter the needs of students at school age, and displays the objectives concentrated around the students and the timetable to achieving them (Alwaqfi, 1996, 1998). The IEP is also considered the core of preparing an individual curriculum for each child with learning disabilities (Al Ma'aitah, 1999; McNamara, 1989). The teacher of the resource room also prepares the IIP, which is considered the executive part for the IEP. After the educational individual plan is prepared, the individual teaching plan is prepared to include one of the objectives mentioned in the individual educational plan in order to teach the child with learning disabilities. The IEP includes general information about the child, the secondary teaching objectives, educational instruments and material, and methods of evaluation and behavior change (Mercer, 1992).

At the end of each semester students are evaluated in accordance with plans put forward for them by the committee in order to make proper decisions about the level of advancement of the target children and consider the possibility of transferring them to regular classes (Al Nabteetie & Jaber, 1996). Advancement of

students with learning disabilities in the resource room is often discovered when they acquire the academic skills and progress in their academic achievement. Comparison is done between their performance at the pretest and the posttest on two achievement tests; one in Arabic language and another in mathematics (Queen Alia fund, 1984). Supervision and follow up for the students in the resource room is done by the field visits done by the Therapy Education Department in the Ministry of Education in cooperation with the General Education Department, the Supervision Department and the Counselling Department in the Directorates of Education (Al Nabteetie & Jaber, 1996).

2.9 Related Studies Conducted in the Arab Countries

Al- Ajloni (2006) conducted a study that was aimed at constructing a training program for developing vocational competencies for trainers of vocational training corporation (VTC) in Jordan and showing its applicable important from the specialists perspectives. To achieve the purpose of the study the researcher used a sample of 98 trainers working at the VTC during the current academic year 2005. The sample represented 20% of the population. The study instrument consisted of 69 items distributed to the following domains: Vocational guiding and supervising, using the technological information, personal competencies, the technical of general safety competencies, the administration of workshops and organizing administration affairs, the methods of teaching and training, the measurement and evaluation and competencies of developing training program and curricula. The study came up with the following results:

- (i) The degree of possessing vocational competencies related to the trainers was high in the all domain expect for the methods of teaching and training and the measurement and evaluation.
- (ii) There are statistically significant differences in the degree of the possessing vocational competencies due to the qualification variable and in favor of Bachelor degree holders in comparison with general Secondary certificate and Diploma.
- (iii) There are statistically significant differences in the degree of the possessing vocational competencies due to the teaching experience variable and in favor of short experience in comparison with those who have longer experience.
- (iv) The application importance of 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.

Khrais (2005) conducted a study that aimed at identifying the effect of a training program in modifying parental attitude towards their learning disabled children. The study conducted on 40 (20 male & 20 female) parents in Irbid city, they were assigned to two equal (20 in the control group and 20 in the experimental group) attitude scale were administered to the two groups as pretest and posttest.

The experimental group received a group counselling program, were as the control group did not receive treatment, the training program consisted of 13 counselling sessions that lasted five weeks, in which the counselor gave out printed papers to

the parents to read and to be discussed thoroughly the next session. One and three way ANOVA was used to analyze the results and revealed a main effect of the training program in modifying parental attitude toward their learning disabled children among the experimental as compared with the control group and there were no significant statistical differences on the parental attitude towards learning disabled children in regard to their gender and educational level.

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 population of this study consisted of all PET in the basic education cycle in the private and government schools in the Ministry of Education at Governorate of Al-Karak Education Directorate; the total number was 162 teachers. A random sample of the study was selected from the population, it included 44 PET. An achievement test and observation scale was administered to the sample as pretest, the sample of the study enrolled into the training program based on competencies. The achievement test and observation scale were administered to the sample of the study as posttest.

The results of the three way ANOVA and T-test analysis revealed that there were no significant statistical differences in the knowledge and performance degree of competencies for PET in the basic education cycle due to the gender, academic qualification and teaching experience, and 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.

Shoeater (2005) developed a training program based on teaching and learning competencies to prepare the social studies teachers of Jordanian Secondary school stage during in-service training. It also aimed at identifying the effect of training program upon the degree to which social studies teachers practice the educational competencies in the classroom. The population was comprised of secondary social studies teachers at North Shounh District/ Al Balaqa Governorate. The study sample consisted of all the teachers in this district who counted 33 teachers. The study revealed the following:

- (i) Subject practice degree of teaching competencies prior the implementation of the training program was low in 50 competencies, where their practice was moderate and weak. These competencies were considered as training needs that should be developed through developing the training program. Whereas they practice 20 competencies with a very high degree and 4 with a high degree out of the complete educational competencies mentioned in the classroom observation scale which counted 74 competencies.
- (ii) Social studies teachers' practice of these competencies after implementing the training program was as follows: 60 competencies with a very high degree; 14 with a high degree out of the complete educational competencies mentioned in the classroom observation scale which counted 74 competencies.

- (iii) Significant differences level between pre and post-observation scale, indicating the success of the training program in developing Secondary Social Teachers' practice of the educational competencies in Jordan.
- (iv) No significant differences were found at level degree Social Studies Teachers' practice of educational competencies due to gender, teaching experience and qualifications.

Al-Mater (2004) conducted a study that aimed at determining the professional competencies that are important for special physical educator in Saudi Arabia. The study's variables are teaching experience in regular physical education, experience in special education, qualification of the teachers, institution that teacher graduated from, place of work and category of the special population. A questionnaire that was used considered of 75 competencies in the field of biological science, history and philosophy, measurement and evaluation, curriculum planning, implementation and administration. A total of 160 special physical educators participated in the study. The result indicated that all professional competencies were highly important and is related to the independent variables, no significant differences were found at the study's variables.

Hadidi (2003) tried to investigate the problems faced by resource room teachers in Jordan. Problems were studied using a research instrument developed a questionnaire include 50 items concerning 6 areas of the problems by the researcher. (209) resource room teachers in public and private schools participated in the study. The results demonstrated that teachers face slight-moderate

problems. The two major problems identified by respondents were those related to: (i) working with parents of children with special needs, and (ii) referral and evaluation of these children. Classroom level and type of school were significantly related to problems faced by teachers. Other variables (scientific qualification, gender, teaching experience in both regular and special education and type of difficulty faced by the child) no statistical significance.

In another research Al-Qethami (2001) carried out a study that aimed to discover the educational competencies for teachers of the mental retarded children through identify the educational competencies needed by those teachers in Taef City in Saudi Arabia among a sample of two set 65 teachers (mental retarded centers and special classes in a regular schools). The study in question identified the educational competencies needed by those teachers. Some of competencies that were developed in the study those were valid and reliable at the same time accepted among the teachers of mental retardation center were instructional competencies, behavior modification, evaluation and relationship among fellow teachers. The results of this study indicated, by using one-way analysis of variance (ANOVA) three were no significant differences due to: specialization, experience, age and qualification on the competencies and interaction at these variables. The result also showed that of all the educational competencies included in the list were found important to the teachers of mentally retarded children.

Khuzai (2001) evaluated the mastery level of effective teaching skills among resources room teachers in Amman, Jordan. The sample of the study consisted of

50 resources room teachers. A classroom observation scale was used which included 35 items in the field planning, instruction, and evaluation skills. One-way analysis of variance (ANOVA) was used to analyze the findings. The results revealed that there were statistically significant differences in mastery level of teaching skills among resources room teachers related to specialization. In addition, the significant differences favored of teachers in the filed of special education. The results showed also no statistically significant differences related to teaching experiences.

Semadi (1996) examined the effectiveness of a resource room program in improving reading and arithmetic for slow learner students. A total of 28 students from Al-Mazar / Al-Karak Governorate in Jordan, identified as slow learners by Jordanian version of the WISC-R, served as a sample of the study. The students were divided into two equal groups, experimental and control. Reading and arithmetic tests were administered to the groups as per-test. The experimental group then enrolled into a special education resource room for one academic year. The control group was left in their regular program. The reading and arithmetic tests were administered to the two groups as post-tests.

The results of the Analysis of Covariance (ANCOVA) revealed that there were statistically significant differences between the experimental and the control groups in both reading and arithmetic skills. In addition, the significant differences favored the experimental group which proves the effectiveness of resource room as a suitable educational alternative for slow learner students.

Hadidi (1993) examined the effectiveness of an in-service training program in Jordan. Furthermore, the researcher developed a research instrument (questionnaire) which covers the basic elements that an effective training program should include. A total of 130 special education teachers participated in this study. The results indicated that the most element necessary for effective in-service training program are not taken into account. The study revealed that teachers' evaluations of the effectiveness of in-service training program are influenced by teachers' gender, teaching experience, and category handicapped condition. Female teachers rate in-service training program more favorable than male teachers. Teachers with more experience in teaching rate in-service training less favorable than those with less experience. Teachers of mentally retarded and physical handicapped children rate these programs more favorably than teachers of visually and hearing impaired children. However, teachers' evaluation of in-service training program is not influenced by professional qualification.

A large percentage of teachers 40% reported that in-service training program rarely benefits them. In addition, the vast majority of teachers more than 80% believed that in-service training program is rarely appropriate in items of its duration and time of implementation. Lastly, a large percentage of teachers feel they need more in-service training programs.

Hadidi (1991) carried out a study to: (i) identify the competencies needed by teachers of students with hearing impairment, and (ii) to determine the relationship between such competencies and teaching experience and qualification in Jordan.

To achieve the objectives of the study, a list of 44 competencies that consist of some of the following dimensions: evaluating children with hearing impairment, instruction design, teaching methods, and teacher's personality.

The results of the study showed that the dimension of evaluating of children with hearing impairment was on the top of the list of study individuals; second dimension was the feature of the teacher's personality. A multivariate analysis of variance took part to identify the relation between the teacher's evaluating of the importance of competencies and with the variables of qualification and teaching experience. The results showed that there isn't any statistical effect for the teaching experience dimension on the evaluation of teachers for the educational competencies. However, a statistics effect discrepancies were found in connection to the evaluation of teachers for the dimension of methods of teaching of hearing handicapped children and guidance of the families of hearing handicapped children which is due to the scientific qualification dimension, where teachers of diploma certificate or higher qualification gave more attention to these two dimensions than teachers having only a secondary school certificate.

According to Hadidi (1990) there is a serious shortage in qualified and adequately trained special education teachers in Jordan. Consequently, in-service training program have been developed recently for the purpose of improving and upgrading the skills of these teachers. However, there is no study that have attempted to evaluate the extent to which these training programs address the actual needs of special education teachers. The primary purpose of Hadidi's study was to identify

those tasks that special education teachers in Jordan rate as important for inclusion in-service training programs. The effect of children's disabilities on teachers' rating was examined. The role-played by teachers' gender, experience and professional qualification on teacher ratings was also investigated. The research instrument used in the study consisted of 26 in-service training needs was constructed and validated, and then administrated to a sample of 130 teachers.

The results indicated that the teachers rated four skills as highly important (these skills are behavior modification for handicapped children, behavior problems associated with handicapping condition, extra-curricular activities in special education, and instructional strategies in special education). The finding further suggested that different groups of special educator have different in-service training needs. The results also revealed that teaching experience plays an important role in determining the in-service needs for teachers, while their professional qualification and gender have no significant effects.

2.10 Related Studies Conducted in the Western Countries

A series of empirical studies were also conducted in the United States of America and other Europeans countries on educational competencies that special education teachers are in need of. Among several of these studies are:

Based on the foregoing theoretical discussion numerous studies have shown support to the CBTE propositions. Hoogveld et al., (2005), for example, conducted

a study to determine the differential effects on the design of learning tasks for CBTE of a teacher training with a classical approach. His sample consisted of 25 teachers (15 men and 10 women) from different Dutch higher education branches of study. The result shows that the classic condition performed significantly better than the alternative condition, and a significant difference between conditions in favor of classic condition. The authors stated in the discussion of the results that the overall design and in particular, the design of learning tasks was better when teachers were trained with the classic approach with a product-oriented example and practice than with mere process-oriented worked examples.

In another related study by Moraise et al., (2005) based on teacher training process and teachers' competency, they conducted a sociological study in the primary school. The study sample involved four female teachers of two primary schools who were socially heterogeneous in terms of gender and social class. The research aimed to develop a training program, just like the current study. In the process of developing the training program to fit the theoretical framework in their research, they reported some of the responses of the study like: I think that in the primary school the teacher should explicate what the children must do, but not how they should do it, so that creativity and imagination can be developed. Moreover, it was acknowledged that in the process the children are demanding and asking for more, some help of course, especially with regard to evaluation. It was concluded in the research that the training program developed should have the following features among others: explicating the text legitimated in the interaction context (via framing of the student evaluation criteria); relationship between teachers'

knowledge and knowledge acquired (if weak and or classified between among courses). It was thus concluded that the teacher acknowledged the importance of going beyond psychology of human mind but to also include sociology of the human environment, which of course include teacher training, if professional competencies of teachers is to be achieved.

Patel and Khamis (2005) presented an augmentative and alternative communication (AAC). The training program 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. Prior to training, they administered a questionnaire to evaluate teachers' knowledge, practices, and attitudes in relation to AAC. The questionnaire was re-administered and individual interviews were conducted post-training program to establish the program's impact on knowledge, practices, and attitude barriers. Teachers' responses revealed that training program helped them to address barriers to AAC intervention. The responses also provided insights into the linguistic and cultural challenges of AAC performance within the Palestinian Arab society.

In a survey research on the competencies needed by special education directors Wigle and Wilcox (2002) constructed some skills of measuring teacher competency. Each skill was used as an item to which the respondents were to indicate his/her level of competency by checking either (i) skilled, (ii) adequate, or

(iii) inadequate. Among a set of 240 surveys sent to a sample of general education administrators, another 240 surveys sent to a sample of special education directors and a final set of 240 surveys sent to a sample of special educators. The results shows that (i) 55% of special educators reported having more than 11 years experience and 58% of the special education directors reported having 21-30 years of experience; (ii) special education directors reported higher overall level of competencies than either of the other two subgroup in the study; (iii) 21 of the 24 skills for which a statistically significant relationship was found and (iv) finally the levels of self reported competency (skilled, adequate, inadequate) within each group in the study were equally found between the groups. It was concluded that college and university preparation program should continue to stress the skills related to assessment, special education program development, collaboration, communication and advocacy should as well be encourage in the development of any mean full teacher competency-based teacher education CBTE.

In addition, Darling-Hammond (1999) reported that states with the highest proportions of certified teachers tended to have the highest National Assessment of Education Progress scores. Moreover, in a study controlling for student socioeconomic status and students taught by certified teachers performed significantly better on standardized test of reading and language arts (but not mathematics) than those taught by under certified teachers. In the above in mind, Wideen et al., (1998) in a review of 97 studies on learning to teach, he found four common features in programs that produced conceptual change in pre-service students, these are: (a) the use of a pedagogy that helps pre-service students

examine their beliefs,(b) a strong programmatic vision that factors program cohesion,(c) a small program size with a high degree of faculty-students collaboration, and (d) carefully constructed field experience in which university and school faculty collaborate extensively.

The results of Brownell et, al., (2005) has vividly shown that teachers need specific competencies for the advancement of their knowledge and skills, among those mentioned by Mary and others are program characteristics that include extensive field experience, collaboration, and program evaluation, although the ways in which programs incorporated these components varied. Furthermore, many programs emphasized in Mary's study encompass cultural diversity. Moreover, Fifty-two (81%) of the program description described how personnel collected information for evaluating the quality of the students, the effectiveness of the program, or both. Evaluation methods, however, varied widely and focused on different outcomes, including direct assessment techniques, such as observation of teaching performance, and indirect assessment techniques. Such as students' teacher satisfaction, faculty perceptions, of the program, and cooperating teachers and administrators' perceptions of the student-teachers and program. Almost half the programs had some observation mechanism for evaluating the classroom performance of prospective teachers. These teacher educators viewed teacher learning as the collective examination of multiple knowledge bases, including, but not limited to, knowledge generated by expert.

In another empirical study, Gilberts and Lignugaris-Kraft (1997) search for classroom management competencies address to teacher ability to manage the educational environment, and directly manage and assess students' classroom behavior. In that study classroom management competencies are divided into four categories address the educational environment: (i) arrangement of the physical environment to facilitate student management, and (ii) formulation of a standard for student behavior in the classroom, and two categories address teachers' management and behavioral assessment; (iii) implementation of strategies to increase appropriate behavior or reduce inappropriate behavior, and (iv) assessing the effectiveness of the implemented strategies. In these programs, teacher educators used a variety of strategies to help students examine their beliefs about instruction; integrate the knowledge; acquire academic, social and cultural knowledge about their students; and reflect on the impact of their instruction.

In the same study, an average of 11.8% (range=2% to 29%) of all competencies in the studies shown are related to classroom management. Classroom management competencies are divided into four basic areas. These areas address (i) arrangement of the classroom environment to facilitate student management, (ii) formulation a standard for student behavior, (iii) implementing behavior management strategies to increase or decrease classroom behavior, and (iv) assessing the effectiveness of classroom management intervention.

However, despite the foregoing the study was noted to have the following limitations among others, Competencies which were specific for teachers of students with severe disabilities were not included. The combined studies appear to reflect a pooling of teacher competencies of special and elementary studies rather than a rethinking of the foundation competencies needed by special and elementary education teachers. In one of studies, Ellis et, al., (1993) reported that competencies originally selected by general or special educator as specific to general or special education were reworded and participation agreed to place the competencies in a combined category.

The fact that teachers must be competent in managing classroom behavior is recognized by both special and elementary education. The focus of the competencies, however, is different depending upon one's training. A study to be included in this review had to meet the following criteria. First, it had to be an observational study of teacher practices to verify a list of teacher preparation competencies; a survey in which teachers, administrators, or university faculty where asked to rate and existing list of competencies for teachers; or a Delphi study in which experts were to reach consensus on important teacher competencies. Second, the study had to include the list of teacher preparation competencies. Opinion paper that presented complications of suggested teacher competencies were not included in the review. Special education studies were restricted to those which addressed competencies for teachers of students with

mild or moderate disabilities (e.g., behavioral disorders, learning disabilities, mild mental or moderate retardation, mild or moderate hearing impairment).

Instructional competencies in Gilberts and Lignugaris-Kraft study shows that the score of the measuring competencies were either average 44.1% or at the lower level range of (range=6% to 71%) of the total competencies. The various proportions of instructional competencies are quite different from those of classroom management competencies. On the average, in elementary education studies more than twice as many instructional competencies were included than in special education studies. The average proportion of instructional competencies from combined studies is almost exactly midway between elementary and special education.

The majority of instructional competencies in all types of studies were in the presentation category, while the proportion of competencies across studies is similar, the foci are quite different. Competencies from elementary education studies as well as from studies cumbering elementary and special educators emphasize two areas. The first is demonstrating "knowledge of subject matter" and the second is demonstrating a wide range of ways to deliver that knowledge (e.g. "variety of teaching methods". "Apply alternative teaching strategies", "employ multiple presentations in different modes to facilitate generalization", "explore new teaching methods," and "knowledge of various teaching styles and learning styles and understands their interrelationships")

Feedback assessment includes competencies which indicate that the teacher is aware of the learner's understanding during a lesson. These monitor, assess, adapt, and record student's academic behavior in an "on the spot" manner. Example of these competencies are statements like: "the teacher check understanding through questions," " the teacher revises instruction on the basis of student comments, questions and performance," and " the teacher keep continues records of a pupil's achievement to facilitate future lesson planning."

According to Gersten et, al., cited in Gilberts and Lignugaris-Kraft (1997) "For many classroom teachers, enhanced performance of students with learning disabilities or other low-performance students is only one concern among many" and that teacher " teachers are more strongly rewarded by principle and school boards for raising overall achievement. Effective use of time addresses the teacher's instructional effectiveness and includes competencies such as "the teacher begins class promptly," "the teacher has all materials and resources ready," moves students through transition quickly and smoothly," "the teacher begins class promptly."

2.11 Summary

This chapter has focused on general and special educations in Jordan as noticeable effort were put by the MOE regarding with special needs. This can be seen through establishing many special schools and resource rooms. This chapter also contained sections on the types of learning disabilities, special education training programs, CBTE, preparation of special education teachers in Jordan, theoretical framework, the instructional competencies of the training program module, resource room program, and related studies conducted in the Arab and the Western countries.

This study hopes to fill the gap in the previous studies that did not establish any training program for special education teachers. Thus, this study aims to construct a training program based on instructional competencies and to measure its effects in improving these competencies for resource room teachers.

Chapter Three

Methodology

3.1 Introduction

This chapter contains a number of sections, namely research design, research variables, research population and sample, data collection, research instruments, training program module, pilot study, research procedure, and finally the data analysis.

3.2 Research Design

The Quasi-experimental design is an experimental research procedure that provides full control of potential confounding variables (Johnson & Christensen, 2000; Gay & Airasian, 2000). Quasi-experiments involve one or more treatments and comparison groups that are subjected to varying levels of the independent variable (Tuckman, 1999). For example, Lederer (2000) used a quasi-experimental design to investigate the efficacy of reciprocal teaching in social studies.

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. This could be better understood as illustrated in Figure 3.1 below, which demonstrates a group of researches that are assigned to the experimental and the control groups. The dependent variables **O** are given as a pretest and post-test for

the experimental and the control groups. While the independent variables, **X** are the training programs are conducted to the experimental and the control groups. This study adapted the quasi-experimental research design in order to measure the effects of the training program module in improving instructional competencies for resource room teachers.

To achieve this study's main objective, the selected participants were randomly assigned into two different groups, an experimental and control, and were observed at two different times (pre and post). The experimental group was then enrolled into the training program module based on instructional competencies for five-weeks. The control group was exposed to the conventional training program adopted by The Jordanian Ministry of Education as presented as illustrated in figure 3.1. Besides the classroom observation scale, the researcher also adopted the interviews and achievement test as pretests and posttests for the experimental and the control groups in order to collect the data.

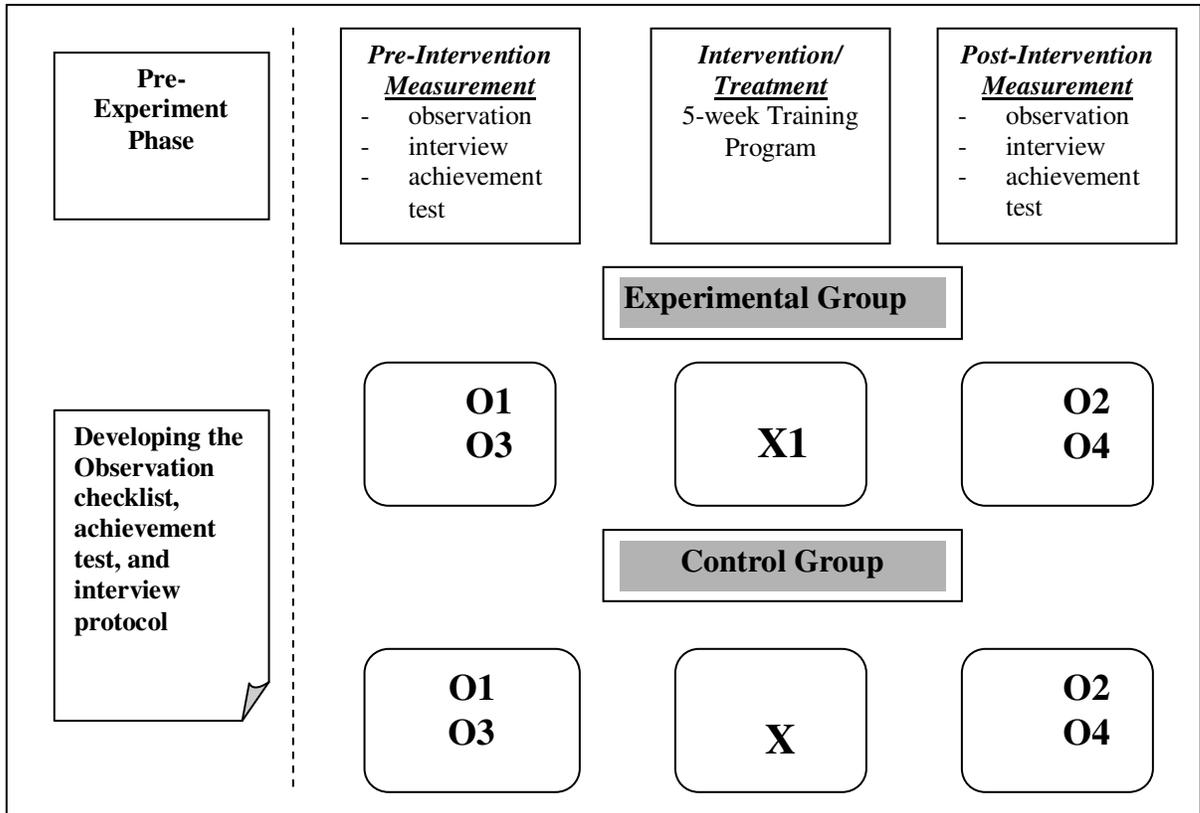


Figure 3.1 the Research Design

O1, O2 means the pre and post achievement test.

O3, O4 means the pre and post observation

x¹ means the treatment (training program).

x means the conventional training program.

The researcher implemented the following research methods:

- (I) **Quantitative (Descriptive) research:** This design is concerned with data collection toward testing hypotheses or answering questions regarding the current status of the variables in the study. Descriptive research is carried out to obtain information about the attitudes, practice concern, demographic, or interest of some group of people. Furthermore, qualitative description also relies heavily on description. The descriptive research data is usually collected by interview, observation, and questionnaire (Gay & Airasian, 2000; 2003). Special education researchers use a variety of sources to gather information for descriptive studies which includes self-report from participants, direct observation, and review of documents (Rumrill, Cook & Bellini, 2001; Vierra et al., 1998). In the context of this study, descriptive research attempts to measure the degree of knowledge and performance of resource room teachers in terms of their instructional competencies. This process is conducted through two different types of instruments, the achievement test and the classroom observation scale.
- (II) **Qualitative (Interpretive) research:** The purpose of qualitative research is to explore, explain, or describe phenomena from the perspective of research participants. Qualitative research is conducted with a focus on the perspectives of people who are most directly affected by the phenomena under study. Qualitative researchers in special education studies often use in-depth interviews to answer their research questions because interviews provide the latitude necessary to

probe for specific details concerning the information offered by participants (Rumrill, Cook & Bellini, 2001; Creswell, 2002).

Vaughn, Moody, and Schumm (1998), for example, conducted a qualitative study to examine reading instruction and grouping practices for students with learning disabilities used by special education teachers in a resource room. In this respect, data was collected through interviews, classroom observation, and document analysis. According to Gay and Airasian (2003), interviews are focused interactions between two or more persons attempting to collect information from the participants. Therefore, interviews enable researchers to collect necessary data that they cannot obtain from observation. Practically speaking, the usage of this qualitative research in the present study is in form of personal interviews. Particularly, the open-ended interview is employed in order to identify the training needs of resource room teachers, which are not measured by the achievement test and classroom observation scale.

3.3 Research Variables

All the independent, dependent and moderator variables that are involved in this study are listed in Table 3.1 below:

Table 3.1 Research Variables

Independent Variables	<ul style="list-style-type: none"> • The training program module based on instructional competencies. • The conventional training program. 	
Dependent Variables	<ul style="list-style-type: none"> • The knowledge level of resource room teachers of instructional competencies • The performance level of resource room teachers of instructional competencies. 	
Moderator variables	1- Gender	(i) Male (ii) Female
	2-Academic Qualification	(i) Bachelor's Degree (ii) High Diploma & more
	3- Specialization	(i) Special Education (ii) Others
	4-Teaching Experience	(i) Less than 5 years (ii) more than 5 years

Table 3.1 above shows the research variables as they are sourced from the literature. The independent variables are: (i) The training program module based on instructional competencies which include planning for instruction, instructional

and classroom management, evaluation, personal and professional competencies; and (ii) The conventional training program which adopted by The Jordanian Ministry of Education. These groups of independent variables would explain the dependent variables.

The dependent variables are the knowledge and performance level of resource room teachers of instructional competencies; this is explained by the stated independent variables in the formulation of the training program which is the main focus in this study. Finally, the moderators will moderate the relationship between the independent variables and the dependent variables in the study. Inclusive in the moderator variables are qualification, specialization, teaching experience and gender.

3.4 Population and Sample of the Research

The descriptions of the research population and the participants of the study are as the following:

3.4.1 The Research Population

The population of the study composes eighty seven (87) female and male teachers working in the resource room in Irbid governorate, Jordan. They are distributed within seven Educational Directorates, including Irbid First Directorate, Irbid Second Directorate, Irbid Third Directorate, Al-Ramtha Directorate, Al-Kourah Directorate, Bani Kinaneh Directorate, and finally the North Ghore Directorate (see Table 3.2).

Table 3.2 the distribution of the study's population in the Educational Directorates of Irbid, Jordan.

Number	The Educational Directorates	Number of teachers
1-	Irbid First	17
2-	Irbid Second	15
3-	Irbid Third	13
4-	AlKourah	12
5-	AlRamtha	10
6-	Bani Kinanh	12
7-	North Ghore	8
Total		87

Table (3.2) shows the distribution of the eighty seven teachers (87), where forty (40) of them are females and the rest, forty seven (47), are male teachers. Out of the mentioned total population, ten (10) teachers, both males and females have been randomly selected to be involved in the pilot study. All the ten teachers were interviewed and observed in their resource room by four (4) different researchers (the researcher and three assistants) implementing the achievement test, classroom observation scale, and interviews during the processes for developing the research instruments and the training program module. The following table illustrates the distribution of the study's population in the Educational Directorates of Irbid after selecting the pilot study (see Table 3.3).

Table 3.3 presents the distribution of the study's population in the Educational Directorates of Irbid after selecting the pilot study.

N	The Educational Directorates	Males	Females	N. of teachers
1-	Irbid First	9	6	15
2-	Irbid Second	10	4	14
3-	Irbid Third	5	6	11
4-	AlKourah	5	5	10
5-	AlRamtha	3	6	9
6-	Bani Kinanh	7	5	12
7-	North Ghore	3	3	6
	Total	42	35	77

3.4.2 The Research Sample

The sample of the study consisted of fifty (50) teachers, of which twenty seven (27) of them are male teachers, and twenty three (23) are female teachers, all fifty working in the resource room in schools within Irbid governorate. The sample formed 65 % of the study population after selecting the pilot study (see table 3.4).

Table 3.4 the distribution of the study's sample according to the Directorates, gender, specialization, qualification and experience.

Variable	Gender		Specialization		qualification		experience		Total
	M	F	Special education	Others	BA	High Diploma & more	Less than 5 years	More than 5 years	
Irbid First	6	4	2	8	3	7	5	5	10
Irbid Second	6	3	5	4	4	5	6	3	9
Irbid Third	3	4	3	4	4	3	2	5	7
AlKourah	3	3	4	2	4	2	4	2	6
AlRamtha	2	4	2	4	2	4	2	4	6
Bani Kinanh	5	3	3	5	4	4	5	3	8
North Ghore	2	2	2	2	3	1	1	3	4
Total	27	23	21	29	24	26	25	25	50

3.4.3 The Research Sampling Procedures

As mentioned earlier, out of the eighty seven (87) teachers (the population), ten (10) teachers have been randomly selected to participate in the pilot study. So, during the actual study, from the remaining seventy seven (77) teachers, the researcher has chosen the sample of the study through a stratified random sampling that made up of (50) teachers. According to Rumrill, Cook, and Bellini (2001) the stratified sampling is a procedure for ensuring that members of the population who have certain characteristics are represented in the sample. The official Directorates often use such procedures when the national population is divided into strata for identifying the demographic characteristics such as race, gender, specialization, teaching experience, and other variables.

As demonstrated earlier, the usage of the stratified random sampling came into being due to the divisions of the population of the study into seven educational directorates (strata). However, in order to determine the sample of the study, the following basic formula was implemented;

$$\text{Males} = (42 / 77) \times 50 = 27$$

$$\text{Females} = (35 / 77) \times 50 = 23 \text{ (Al-Jadiry, 2004)}$$

This means the total number of male participants in the study sample is 27, and 23 female participants as shown in the above formula. Consequently, the process went on taking the number of male and female participants from the seven educational directorates, through adapting the same formula implemented above, for example, first Irbid directorate, as explained above in table 3.4.

$$\text{Males} = (9 / 77) \times 50 = 6$$

$$\text{Females} = (6 / 77) \times 50 = 4$$

After that, the number of male and female participants in every stratum was selected by simple random sample. Therefore, the sample in this study was divided into two groups. The first group consisted of (25) teachers whereby fourteen (14) are males and eleven (11) are female teachers. The second group also composed of (25) teachers, thirteen (13) are male teachers and twelve (12) are female teachers. After these procedures, one group was randomly chosen to be the experimental and the second as the control group. This is shown in figure 3.2 below:

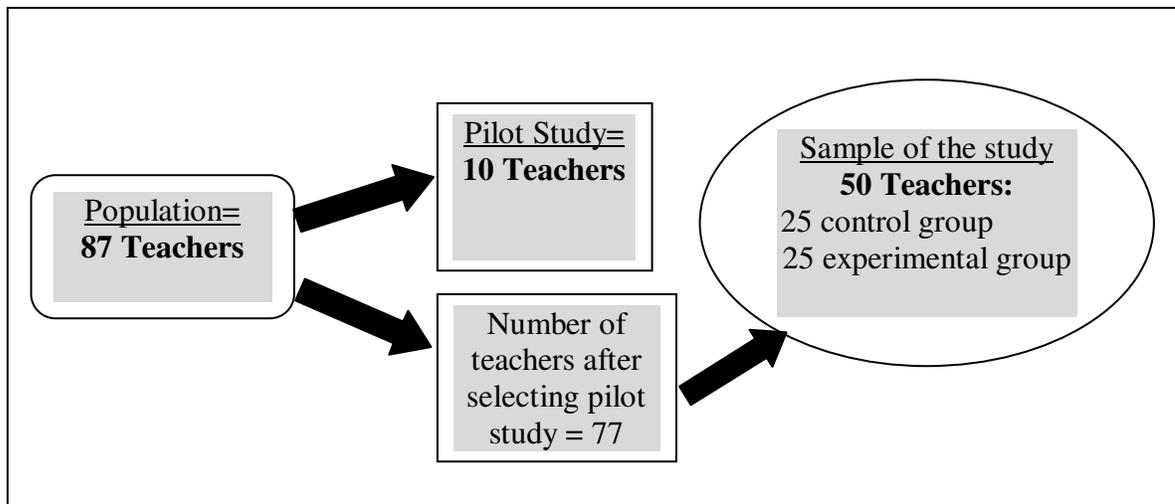


Figure 3.2 the Sampling Selection Procedure

3.5 Data collection

The researcher used two kinds of sources for the data used in this study:

3.5.1 Primary data

For the purpose of this study, primary data have been obtained using two techniques:

(i) Quantitative data

Quantitative data refers to the data the researcher collected from the achievement test and class observation scale. It is through this test and scale that the researcher discovers the level of knowledge and performance of resource room teachers for instructional competencies. The data then helps to determine other instructional competencies that the resource room teachers need. The training program module then was constructed according to the results of the pilot study.

(ii) Qualitative data

Qualitative data was used in this study in the form of interviews and classroom observations. This data was used in order to identify weak aspects in the knowledge and performance for the instructional competencies by resource room teachers which were not measured by the achievement test and classroom observation scale.

3.5.2 Secondary Data

The researcher obtained this kind of data by reviewing books, journals, internet websites and other references related to the study such as Review or Reports of Educational Research, Monographs, Masters' theses, and PhD's dissertations, and Educational Journals. Other resource includes different Governmental Institutions' Reports and Monographs like the one produced by the Jordanian Ministry of

Education (JMOE), Department of Statistics, and Ministry of Higher Education and Research (MHER).

3.6 Research Instruments

The research Instruments developed to measure the instructional competencies were included in (i) a classroom observation scale checklist, (ii) an achievement test, and (iii) the interview protocol.

3.6.1 Classroom Observation Scale

A Non-participant observation approach was used in this study. In order to measure the level of performance competencies among the resource room teachers, a classroom observation scale in a form of a checklist was developed. This checklist was first written in the Arabic Language and then was translated into the English Language with the help of a number of specialists in the area of language and linguistics. These experts work as faculty member in the Department of Language and Translation of the University of Jordan.

3.6.1.1. The development of the checklist: Literature Review and Expert Opinion

The resources used for developing this instrument include the following:

- (i) **The literature on general special education area:** These resources are commonly used by teachers who educating children with special needs. Such resources analyze the nature of the needs of the age group

of children with special needs in addition to the activities and the assignments conducted by teachers to fulfill these needs.

- (ii) **The literature on teachers' assessment and competencies:** These are resources that are specifically related to the evaluation of the performance of special education teachers and the characteristics of competencies needed for teacher education. Examples of such literature are: Al Zu'by (1993), Alqathamy (2001), Ghrair (1991), Al Smadi (1989), Al Khuzai (2001), Queen Alia Funds for Social Voluntary Work in Jordan (1984), Sho eater (2005), Al-Sayyed (2005) and Al-Ajloni (2005).
- (iii) **Related models:** These are some of the models that are the most commonly used for determining Instructional competencies. Such are Shores, Cegelka, Nelson's model (1973) Westling and Koorland's model (1981) and Blackhurst model (1977; 1985; 2001), Kemp et el model (1996).
- (iv) **The academicians and subject matter experts' opinions:** The analysis of the opinions of a committee of a number of specialized individuals yielded a tremendous amount of information concerning the instructional competencies necessary for resource room. The committee included special education teachers, teachers of resource rooms, and the educational supervisors in the Educational Directorate of Irbid and eminent experts in the field of special education at the Universities of Jordan.

By examining the previously mentioned resources, the researcher has gathered many factors and characteristics considered by experts as necessary in the process of evaluating the performance of teachers in the resource room. From the analysis of the gathered data, sixty one (61) different competencies have been identified (see Appendix 1). This tentative list was given to a group of referees for validation and modification purposes. The researcher categorized these instructional competencies into three (3) distinct dimensions:

- 1. Planning (18 competencies),**
- 2. Instruction and Classroom management (26 competencies), and**
- 3. Evaluation (17 competencies).**

3.6.1.2 The development of the checklist: The Experts' validation process

The tentative list of sixty one (61) competencies was reviewed by:

- Four different professors in the field of special education and curricula at the Universities in Jordan.
- Five special education resource room teachers.

In light of their notes in terms of the adjustments, combinations, deletions or additions that should be made, the researcher developed the classroom observation scale checklist in its final version; which includes forty (40) different items or competencies (see Appendix 2). The final version of the checklist was then constructed. Dimension-wise, in this final version of classroom observation checklist, the forty competencies were distributed as follows:

1. **Planning - fourteen (14) competencies.**
2. **Instructional and Classroom management - fourteen (14) competencies.**
3. **Evaluation - twelve (12) competencies**

3.6.1.3 The development of the checklist: Developing a Form

The list of the forty competencies was transformed into a proper checklist form with the 5-point Likert scale measurement integrated into it. The scale represents the performance level of practice by the observed resource room teacher on a particular item (competency):

5 -	High Level of Practice
4 -	Moderate High
3 -	Average
2 -	Moderate Low
1 -	Low Level of Practice

The scores of the forty items can be summed with the total maximum point of 200 and the total minimum point of 40. The researcher then categorized this range of total scores (40 - to 200) into five distinct categories in term of teachers' level of competency. The researcher used a simple formula in developing these five categories:

$$160 \text{ (the total of } 200 - 40) / 5 \text{ (No. of categories)} = 32$$

From this simple formula the researcher developed the standard in term of the teacher's level of competency. This standard used through out this study

168 & more	-	Very High Competency Level
136– 167	-	Moderate High Competency Level
104 – 135	-	Average Competency Level
72 – 103	-	Moderate Low Competency Level
71& Less	-	Very Low Competency Level

3.6.1.4 The development of the checklist: The Experts' reliability process

The inter-raters reliability is the constancy of the agreement and disagreement among the observers concerning the observed subjects. As mentioned earlier, for testing the inter-raters reliability in this study, ten (10) resource room teachers (pilot study) were randomly selected and each was observed by four (4) different observers.

Using the newly developed 5-point Likert scale classroom checklist, the observers observed the teachers and scored them on all the listed forty competencies. The total scores of all the competencies for each teacher were given in Table 3.4. Then the mean score for each teacher was calculated in order to obtain the agreement score among the four observers (Cooper, 1974).

Table 3.5 Inter-Raters Reliability Scores for Pilot Study

Teacher	Obsvr1 Total Score	Obsvr2 Total Score	Obsvr3 Total Score	Obsvr4 Total Score	Total (/ 800)	Mean
1	140	150	155	160	605	.756
2	124	137	145	145	551	.690
3	172	169	156	163	660	.825
4	158	152	167	157	634	.795
5	130	145	156	149	580	.725
6	173	161	158	196	688	.860
7	147	136	154	157	594	.740
8	157	147	169	144	617	.770
9	182	173	165	154	674	.845
10	128	134	139	145	546	.685
Total						.771

The table shows that the percentage of the inter-raters reliability among the four observers was between .685 and .860, with the overall percentage of .771, which is a reasonably satisfactory percentage.

In order to check also the reliability of the classroom observation scale, Cronbach Alpha formula for internal consistency (which points to the correlation strength between classroom observation checklist items) was used each of the three fields/domains of the observation checklist. According to Rumrill, Cook and Bellini (2001) the Cronbach's Alpha coefficient is used when scale items call for more than two response categories. The percentage for reliability of planning was (0.73), for instruction and class management was (0.76), and for the evaluation the percentage was (0.80). The percentage of Cronbach Alpha formula for internal consistency was between 0.73 and 0.82, which again is an adequate number.

3.6.1.5 The training sessions for the observers

The researcher had developed and conducted several 2-hour training sessions with the other three observers. The training consisted of the following agendas:

- Explanation of the proper use of the instrument (observation checklist) in terms of the meanings of the items and their corresponding Likert scale.
- Defining the observation system focusing on the behavior to be observed accurately and the duration of the observation. The classes need to be observed not less than one whole classroom period.
- Reminding the observers that the planning and evaluation are observed prior to class time. While, instruction and classroom management is observed while the class is in process.
- Discussing the specific dimensions to be observed and recorded.

Table 3.6 Classroom Observation Guidelines.

Dimension	The Specific Items
Planning	<ul style="list-style-type: none"> • Review the file to find the students' reading weakness and strength points. Then, compare to see if the points go along with the objectives of the plan. • Review the objectives of the individualized educational plan (refer to the last item of this dimension – item # 40)
Instructional & Classroom Management	<ul style="list-style-type: none"> • The instrument includes items that can be observed at different times in the class (at the beginning, middle or end of the class). • Some items can be observed throughout the class period (i.e. the use of suitable aids, verbal and non-verbal communication skills, effectively controlling the classroom, and maintaining students' motivation). • Some items require the attendance of more than one class period (i.e., the use of appropriate training aids, and being sensitive to the individual differences of the students) • The implementation of instructional procedures (i.e., handouts distributed).
Evaluation	<ul style="list-style-type: none"> • Review the evaluation reports. • Review the accumulative evaluation reports of the students. • Review the quizzes used for evaluation. • Review evaluation for more than one student.

There are also a number of additional general rules for the observers:

- Must not talk about the objectives of the study to the participants.
- Must not reveal the result of the evaluation to the teachers.
- Must not interfere with the communication and interactions between the teachers and the way the evaluation is recorded by the teachers.

- Must follow the preliminary steps of the observation starting with visiting the teacher in charge of the resource room and presenting the program of the visit to make sure it is the same program put forward by the researcher and the school.
- Should meet the teachers and attend classes from the beginning to the end to allow them to record evaluation on each item, taking into consideration the items that need to be observed and any special cases such as student who is suffering from any attention disorder.
- Should sit in the back of the class where they can observe the teachers without causing any distractions to the students.

3.6.2 Achievement test

An achievement test was constructed to measure the level of knowledge competencies among resource room teachers in terms of instructional competencies in three categories (planning, instruction and classroom management, and evaluation). The achievement test includes the following elements:

- The test contains (68) questions of multiple choice type which covers three categories related to the instructional competencies. The categories are planning (27 questions), instruction and classroom management (22 questions), and the evaluation (19 questions).

- The questions were developed based on the revision of the literature, the experiences the researcher gathers during the fieldwork and through taking the opinions of experts in the field of special education, teachers and supervisors.
- The levels of cognitive domains measured by this test were identified according to Bloom's taxonomy.
- A table of specifications for contents elements and knowledge level for each test items.
- To form test items which reached (68) questions in its primary form from a multiple choice test, and in each question (4) alternatives with only one true alternative.

3.6.2.1 The Validity of the Achievement Test

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.

Based on the experts' suggestions some modifications were incorporated. The achievement test questions which were agreed upon by more than (80%) of the experts shows that the questions measure what they are suppose to measure. Therefore, the number of achievement test questions became (50) questions and they are distributed as follows: (1) planning (17 questions), (2) instructional and

classroom management (19 questions), and (3) evaluation (14 questions) (see appendix 3).

3.6.2.2 Difficulty Coefficient of the Achievement Test

The difficulty level of each test item was found by calculating the percentages for those who answered the test questions correctly compared to the total of the tested individuals. When the difficulty coefficient was calculated for each item of the test, it was found that it ranged between (50%-78%). A test is considered good if the difficulty coefficient is between (50% and 70%) (Assayed, 2005).

3.6.2.3 Differentiation Coefficient of the Achievement Test

“Items distinguish degree” is the ability to distinguish between different groups for the quality which is measured by the test. When the power of distinguish for each item of the test was calculated, it was found that it ranged between (40-69%) (Ebel, 1979). Test items are considered good if the distinguish degree is (40%) or more on the light all the questions of the achievement test were kept and none were deleted.

3.6.2.4 The Reliability of the Achievement Test:

1. Test- Retest Reliability: Test-retest reliability refers to the consistency of test scores over time (Johnson & Christensen, 2000). In the method during the pilot study, the test 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), and is considered as a good pointer for the reliability of the test.

2. Internal Consistency Reliability: Internal consistency reliability is a measure of the stability of scores across the items that compose a test or scale within a test. This type of reliability can be estimated in a variety of ways of which two, split-half and inter-item, are most common. Thus, inter-item reliability gauges the extent to which all items are related to each other, and it indicates the stability of scores across all items rather than across two halves. The Kuder-Richardson Formula 20 (KR-20) and Coefficient Alpha are used to estimate inter-item reliability. The (KR-20) formula is used when test items require two response answers (e.g., yes / no) (Hood & Johnson, 1997; Rumrill, Cook and Bellini, 2001). In this study, internal reliability is calculated through 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 class 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.

3.6.2.5 Marking the Achievement Test

One mark was given to every correct answer on the achievement test and a zero mark for any wrong answer. The highest mark that a subject can achieve is 50 marks, and the lowest is zero. During the pilot study, the scores ranged between 40 and 25. For the purpose of distributing the pilot study individuals on the three levels (low, moderate, high) the interval range was considered by dropping the low

level 25 from the high level 40; the result was divided by 3 and the interval range equaled 5. The interval range (5) was added to the lowest mean to get the interval of the lowest level 25-29, then add to get the moderate level 30-34 and finally, the highest level range for the second interval was added to get the third interval (more than 34).

In order to identify the achievement level for the pilot study, individuals according to the achievement test items were distributed into three levels (high, moderate, low). The low range was dropped (zero) from the high range (1), the result was divided by (3) and the interval range equals (0.33). The low interval falls between (0.33 and less), the moderate interval falls between (0.34- 0.67), and the high interval is greater than (0.67) (Adas, 1999).

3.6.3 The Interview Guide Protocol

The third instrument developed for this study was the interviews protocol. A number of protocol sets, which contained lists of interview questions were developed by the researcher. The interview protocol is an instrument for collecting information. It is normally a face to face conversation between an interviewer and interviewee and it is considered as one of the most appropriate methods for personal information data collection (Johnson & Christensen, 2000). The interview protocol is used for the purpose of verifying the details and information the researcher has gained from another source (Adas, 1999). Furthermore, Cross and Stewart (1995) used the interview guide protocol approach in their study of the experience of a gifted student attending a rural high school. The interview protocol

was designed to measure the fourth domain of the training program which is connected to the personal and professional competencies.

Accordingly, for this study, a number of questions were developed for individuals involved in to find their training needs. These questions were:

- (i) What are some of the instructional competencies that you believe are important for and needed by resource room teachers? (Planning, Instruction and Classroom Management and Evaluation components)
- (ii) In general, what is your opinion about the overall level of competencies possessed by the resource room teacher?
- (iii) Do you think a training program is necessary?
- (iv) How could the training program be conducted? How long should its duration should it last?
- (v) Have you attended any in-service training programs for special education teachers?

3.6.3.1 The Interview Protocol: Validity

After the preparation phase of the interview protocol guide for resource room teachers (which is in its primary form contained 15 questions) it was presented to a number of referees. The classroom observation scale checklist and the achievement test were also presented to them in order for them to judge the appropriateness degree of the items and the guide questions in terms of measuring what they are meant to measure. The interview protocol guide was verified

according to the referees opinions and observations. At the end, they pulled out five (5) questions until it reached only 10 (see appendix 4).

3.6.3.2 The Interview Protocol: Reliability

Three assistants helped the researcher in the interviews and they were the same assistants who carried out the observation for resource room teachers. During the interview, they recorded the resource room teachers' responses and then they showed these responses to them.

3.6.3.3 The Training Sessions for the Interviewers

The researcher had developed and conducted a 3-hour training session with the three Interviewers. The training included the following agendas:

- (i) Conduct the interview after observing the performances of the resource room teachers at same day.
- (ii) Each interview shouldn't exceed between 20-30 minutes.
- (iii) Clarify the general aim of the interview to the teachers.
- (iv) Give the interview questions to the teachers in order for them to have a look before the interview.
- (v) Listen to everything the teacher presents.
- (vi) Record the interview by using a recorder.
- (vii) Listen twice to the tape and have a deep thinking of what the teacher has said.
- (viii) Convert the recorded materials into written material (write down what had been said in the interview).

- (ix) Analyze what had been written and look for the relationships and connections from the interviewer's point of view and its relation with the objectives (aims) of the study.

3.7 The Training Program Module Based on Instructional Competencies

The role the resource room teacher plays in the teaching/learning process is a principal important role. In spite of the importance of all the factors that influence this process, such as school administration, curriculum, and educational supervision, these factors do not achieve the objectives without the availability of the teacher who is capable of performing the assigned mission effectively and efficiently. The training program 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, evaluation, and personal and professional competencies. This will be positively reflected on the students with learning disabilities in the resource room.

3.7.1 Rational and justifications of the Training Program Module

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 researcher 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 (Ministry of Education, 2005). This training program stems from the following justifications:

(i) The under trained resource room teachers practicing the instructional competencies can be upgraded through the training program while in-service. Thus, the teachers will be able to use various strategies and educational technologies.

(ii) The training program would help highlight the role of the teacher trainees during the training process.

(iii) This training program would provide continuous feedback in order to achieve 80% mastery level.

3.7.2 General objectives of the Training Program Module

- (i) Providing the resource room teachers with preliminary knowledge and capabilities about planning instruction.
- (ii) Providing the resource room teachers with preliminary knowledge and capabilities about the educational objectives.
- (iii) Providing the resource room teachers with preliminary knowledge and capabilities about the individualized educational program.
- (iv) Providing the resource room teachers with preliminary knowledge and capabilities about the strategies of managing special classroom.

- (v) Providing the resource room teachers with preliminary knowledge and capabilities about the instructional aids used in teaching students with learning disabilities.
- (vi) Providing the resource room teachers with preliminary knowledge and capabilities about the strategies used to motivate students with learning disabilities.
- (vii) Providing the resource room teachers with preliminary knowledge and capabilities about the educational evaluation competency.
- (viii) Providing the resource room teachers with preliminary knowledge and capabilities about the standardized and the non-standardized evaluation tools.
- (ix) Providing the resource room teachers with the skills and the knowledge of performing educational research stemming from the needs of the community and the teaching/learning environment.
- (x) Provide the resource room teachers with preliminary knowledge about techniques of cooperation with the students' parents regarding their children in the resource room.

3.7.3 Length of Training Program Module

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.

3.7.4 The components of the Training Program Module

This training program module consists of four (4) domains:

(i) The first domain: The Planning for Instruction Competency. This domain consists of three training units:

- Instructional planning (general overview).
- Instructional objectives.
- The individualized educational program.

(ii) The second domain: The Instructional and Classroom Management Competency consist of four training units:

- Classroom management (general overview).
- Instructional aids used with children with learning disabilities.
- Instructional strategies in special education.
- Motivation.

(iii) The third domain: The Evaluation Competency this domain consists of two training units:

- Evaluation in special education (general overview).
- Formal and Informal Evaluation.

(iv) The fourth domain: Professional and Personal Competencies this domain consists of three training units:

- Teacher - Parent Associations.
- Educational Research.
- Cooperative learning.

3.7.5 The Content of the Training Program Module

Determining the content of a training program module based on instructional competencies is considered one of the most complicated missions since this effort requires taking a group of numbers into consideration. Some of the factors are:

- (i) Determining the instructional competencies related to each of the four domains of the study.
- (ii) Building the content of the training program on the instructional objectives previously determined. The content, in fact, should stem from the objectives, since the content was found in order to help achieve the objectives and take into consideration well known of the four domains, in addition to challenging the desired level of achievement.
- (iii) Varying the skills and the experiences as a result of the training program contains, in addition to varying the activities of the training program. This would the different abilities of the learners or the trainees (actualizing individual differences).
- (iv) Including the self-evaluation techniques that enable the trainees to see their level of progress in learning.
- (v) Including the four training domains in accordance to the three fields of study. In selecting the content, the researcher makes sure that the training program content is compatible with the objectives. It is flexible and allows the trainees to discuss and carry out the activities that support the training process. In addition, the researcher referred to reference books and previous studies.
- (vi) Each workshop included the following:

- a. The general objectives.
- b. The behavioral objectives, which describe the desired objective the trainees, must perform.
- c. Pre-evaluation, which aims at evaluating the resource room teachers' competencies prior to the workshop.
- d. Methodologies, aids, and activities, which aim at organizing the content of the workshop and determining the aids and the activities that helps the resource room teachers to develop their instructional competencies; knowledge, as well as performance.
- e. Post-evaluation, which aims at evaluating what objectives achieved for each workshop. The same aids used for the pre-evaluation are used for the post evaluation in order to maintain feedback to modify the trainees' behaviors.

3.7.6 Selecting training strategies, techniques, methods, activities, and training equipment for the training environment:

For the purpose of the training the methodologies used must be satisfactory and effective through the following: Its variety and diversity in order to suit the abilities and desires of the trainees; In addition to its capability to achieve the desired objectives in an effective and efficient way; its dependence on the individual side of the trainees and focus on it in the training process; its focus on achieving objectives and not on speed; thus providing the opportunity for the trainees to

exhibit performance and continue follow up, since the researcher used cooperative learning, discussion, and debate.

3.7.7 The Implementation of the Training Program Module

In order for the training program module to achieve its objectives, teacher trainees are asked to observe the following activities before each workshop:

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

3.7.8 The Validity of the Training Program Module

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.

The referees then observe (comments) regarding their suggestions for modifying the time of some training units, modifying some objects of the program in addition to some language modifications. These comments (suggestions) were taken into consideration (see appendix 6).

3.8 Pilot Study

The pilot study was conducted prior to the actual study itself. The pilot study was conducted on a random sample from the study population. The number of the sample for the pilot study was 10 female and male teachers. The objectives of this study were:

- To make sure that the researcher and his assistants are able to implement the study's instruments efficiently.
- To identify the potential obstacles while conducting this study.
- To ensure of the co-operation of the study participants in this study.
- To ensure the validity & reliability of the instruments were used in the study.
- To identify the instructional competencies which the teachers still weak and which need to be developed through the training program module.

- To sire opportunities for the researchers for sit in the special education resource room so as to have a chance to observe the real situation and to have the first real feeling and experience of being in the room (familiarity).

3.9 Research Procedures

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

- (i) 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.
- (ii) Preparing classroom observation scale checklist contained of 40 items to measure the performance competencies for resource room teachers in the area of planning, instruction and classroom management and evaluation.
- (iii) Preparing the interview protocol guide contained of 10 questions in the area of the personal and professional competencies.
- (iv) Verifying the validity and reliability of the three study instruments.
- (v) Taking the approval from the Jordanian Ministry of Education to conduct this study.
- (vi) Taking the approval of Educational Directorates in Irbid Governorates to implement the three instruments on the resource room teachers.
- (vii) Training three special education PhD colleagues to conduct the implementation of the study.

- (viii) Implementing the pre-achievement test on the study's participants (experimental and control groups).
- (ix) Implementing of pre-observation scale on the study's participants (control and experiment groups).
- (x) Conducting pre-interview with the experimental and the control groups directly after observing their performances.
- (xi) Constructing a training program module based on instructional competencies.
- (xii) Findings the validity of the training program through presenting it to a number of referees and experts in field of teachers education.
- (xiii) Implementing the training program on the experimental group for five weeks (two days a week, for a period of three hours a day).
- (xiv) 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).
- (xv) Implementing the post-achievement test on the participants (experimental and control groups).
- (xvi) Implementing the post-observation scale on the participants (control and experiment groups).
- (xvii) Implementing the post-interview on the experimental and control groups.

3.10 Data Analysis Procedures

The following analyses were conducted for this study:

Table 3.7 Data Analysis

N	Research Questions	Analysis
1.	Does the training program have any effects in improving knowledge and performance competencies of resource room teachers?	<p>a. Quantitative: (i) t-test analysis comparing the means of the two groups in the pre-achievement test and pre-observation scale, (ii) and Analysis of Covariance (ANCOVA).</p> <p>b. Qualitative: Thematic analyses of the data gather from the interview sessions, frequency and percentage.</p>
2.	Are there any significant differences between the means of experimental and control groups on the post-achievement test and post-observation scale due to gender, qualification, specialization and teaching experience?	<p>A. Quantitative: means and standard deviations of the two group in the post-achievement test and post-observation scale, and four-way analysis of variance (4-way ANOVA).</p>

3.11 Justifications for using t-test, analysis of Covariance, and analysis of variance

- (i) **The t-test:** The t-test is used to determine whether the differences between the means of two groups (typically an experimental and a control groups) on a dependent variable are statistically significant from

one another (Johnson & Christensen, 2000). The researcher used the t-test to investigate the equivalence of the two groups (control and experimental) through the use of pre-achievement test and a pre-observation checklist.

- (ii) **Analysis of Covariance:** Analysis of covariance is a statistical method that can be used to equate groups that are found to differ on a pretest. Analysis of covariance is used to adjust initial group differences on variables used in causal-comparative and experimental research studies. ANCOVA is used in two major ways, as a technique for controlling extraneous variables and as a mean of increasing power. Usage of ANCOVA is essential to equate groups on one or more variables to be controlled. Essentially, ANCOVA adjusts posttest scores for initial differences on a variable and compares the adjusted scores; where groups are equalized with respect to the control variable and then compared (Glass & Hopkins, 1996; Hittlemn & Simon, 2002).

In this study there is a number of ways in which the data from quasi-experimental research can be analyzed in order to test the research questions, and the research hypotheses regarding the effects of the training program or treatment. The most effective way to analyze this data is to compare the posttest scores of the treatment groups (experimental and traditional methods). Furthermore, the pretest is used to see if the groups (experimental and control) are essentially the

equivalent on the dependent variables (knowledge and performance level of teachers of competencies) at the start of the study. If they are, the posttest scores can be directly compared using a statistic called the t-test. But if the experimental and control groups are nonequivalent in the pretest, the posttest scores can be analyzed using analysis of covariance (ANCOVA), (Gay & Airasian, 2000, 2003).

(iii) Analysis of Variance (ANOVA): Analysis of variance (ANOVA) inferential statistical technique used to determine if there exists a significant difference among the means of three or more data groups (Gay & Airasian, 2000, 2003). A Four-way analysis of variance is used in this study because there are four categorical moderator variables, which are: (i) gender, (ii) qualification, (iii) specialization, and (iv) teaching experience. The researcher uses designations $2 \times 2 \times 2 \times 2$ ANOVA. In addition, the number refers to the moderator variables-specifically, the number of values that each of moderator variable has. A $2 \times 2 \times 2 \times 2$ ANOVA involves four moderator variables, the first has two values e.g., gender (male and female), the second includes two values of qualification (bachelor and high diploma & more), the third is having two values, specialization (special education and others), and the fourth is also has two values for teaching experience (less than 5 years and more than 5 years).

3.12 Summary

This chapter has focused on the population and the sample of the study. The population composes teachers working in the resource room in Irbid Governorate, Jordan. The sample of the study consisted of 50 male and female teachers chosen according to stratified random sampling. The sample was divided into equal groups (experimental & control) with 25 teachers in each. Furthermore, the experimental group was attached into the training program module; whereas the control group was exposed to the conventional training program. The nonequivalent control group design was used in the study.

The researcher constructed a training program module based on instructional competencies. Therefore, the researcher also developed three instruments to measure the effects of a training program in improving instructional competencies which were an achievement test, a classroom observation scale, and interviews protocol. Finally, the chapter included the justifications for using data analysis procedures.

CHAPTER FOUR

RESULTS

4.1 Introduction

The main purposes of this study are to construct and measure the effects of a training program in improving instructional competencies for special education resource room teachers. This chapter presents the results of the study. Data analysis is a process of simplifying quantitative or qualitative data for a better understanding, involving application of statistical techniques to numerical data or coding and finding patterns or themes in narrative data (Gay & Airasian, 2003).

The quantitative data in this study includes the results of the pre and post achievement tests as well as the pre and post classroom observation scale checklists. The qualitative data, on the other hand, includes the pre and post interview's transcriptions and classroom observation of the sample of the study.

The nonequivalent control group which is a popular approach to the quasi-experimental design was used in this study. It is based on the pretest and posttest of both the experimental and the control groups. The experimental group was enrolled into the training program module based on instructional competencies; whereas the control group was enrolled into the conventional training program which was adopted and conducted by the Jordanian Ministry of Education.

The t-test analysis was run to determine whether the difference between the means of the experimental and the control groups on the pretest are statistically different, and to investigate the equivalence between the experimental and the control groups on the pre-achievement test (pre-AT) and pre-observation scale (pre-OS). Analysis of covariance (ANCOVA) was used to adjust any discrepancies between the groups found in the pretest. Finally, four-way analysis of variance (ANOVA) was used because there were four categorical moderator variables. The data were compiled and analyzed using the Statistical Package for Social Science (SPSS) for Windows computer software (version 11.5).

4.2 The Inferential Statistics

Table 4.1 summarizes the descriptive statistics for the dependent variables (achievement and performances) of the two groups. The means of the pre-AT in this table show that the mean of the control group is 30.68 (SD= 3.388), which is greater than the mean of the experimental group, which is 27.76 (SD= 4.639) by 2.92. This difference is in favor of the control group. Table 4.1 also shows the means of the pre-OS of the experimental group is 114.96 (SD= 8.244), which is greater by 6.84 than the mean of control group, which is 108.12 (SD= 9.329). This difference is in favor of the experimental group.

Table 4.1 Means and standard deviations on each dependent variable (pre-AT and pre-OS) by the two groups

Dependent Variables	Group	N	Mean	SD
<i>pre-achievement test (AT)</i>	Control Group	25	30.68	3.388
	Experimental Group	25	27.76	4.639
<i>pre-observation scale (OS)</i>	Control Group	25	108.12	9.329
	Experimental Group	25	114.96	8.244

Therefore, to examine whether there is a significant statistical difference at $p < .05$ between the groups' mean scores and to test the assumption that the participants across the two groups are equivalent in term of the level of knowledge and performance competencies, t-test technique was conducted. Table 4.2 presents the results of the t-test:

Table 4.2 T-test results of the two groups' scores on pre-AT and pre-OS

Dependent Variables					
Pre-AT	F	Sig.	T	df	Sig.
Equal variances assumed	1.743	.193	2.542	48	.014*
Equal variances not assumed			2.542	43.928	.015
Pre-OS	F	Sig.	T	df	Sig.
Equal variances assumed	.266	.608	-2.747	48	.008*
Equal variances not assumed			-2.747	47.284	.008

(*) *statistically significant differences at $p < .05$*

Table 4.2 presents the results of the t-test, showing the overall differences in the performances of the two groups at pre-AT. These significant differences are in

favor of the control group ($F= 1.743$, $P= .014$). Furthermore, Table 4.2 also shows differences in the performance of the two groups at pre-OS, and the differences are in favor of the experimental group ($F=.266$, $P=.008$). This means that there are statistically significant differences between the experimental and the control groups at $P <.05$. This means that the two groups are not equivalently homogenous in their performances on the pre-AT and pre-OS prior to the beginning of the training program (treatment). Therefore, the assumption that the two groups are equivalent in term of the level of knowledge and performance competencies is rejected.

According to Gay and Airasian (2000; 2003), Hittlemen and Somon (2002), and Johnson and Christensen (2000), if the experimental and the control groups are nonequivalent in the pretest, posttest scores could be analyzed using analysis of covariance (ANCOVA). The function of this analysis is to adjust the posttest scores on the dependent variables (knowledge and performance) for the observed differences on the pretest, and in this way statistically equates the participants in the various comparison groups. Thus, the results of the analysis of covariance (ANCOVA) are used to answer research questions and to test hypotheses number one and two.

4.2.1 Results related to Research Question number one:

Does the training program have any effect in improving knowledge competencies of resource room teachers?

Table 4.3 presents overall means, standard deviations, and adjusted means are calculated.

Table 4.3 Means, standard deviations, and adjusted means of post-AT of the two groups.

Group	N	Mean	SD	Adj. Means
Control Group	25	33.24	3.41	33.154 ^a
Experimental Group	25	42.16	2.32	42.246 ^a
Total	50	37.70	5.35	37.70 ^a

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

Table 4.3 presents overall means, standard deviations, and adjusted means of the post-AT for the control and the experimental groups. This table shows that the mean of the experimental group is 42.16 (SD= 2.32), which is greater than the mean of the control group 33.24 (SD= 3.41). This shows that there is a difference in the means of the two groups, which are 8.92.

In order to examine any significant differences at $p < .05$ between the control and the experimental groups on the post-AT, the analysis of covariance (ANCOVA) is conducted. The mean scores of the post-AT considered as the dependent variable, while the independent variables are the intervention (training program) that are

exposed to the experimental and the control groups and the covariance is the mean scores of the pre-AT. Table 4.4 illustrates the results of analysis of covariance (ANCOVA) technique between the adjusted mean scores on the post-AT.

Table 4.4 Summary of analysis of covariance (ANCOVA) results of the differences between the means of the two groups on the post-AT.

Source	Type III Sum of Squares	df	Mean Square	f	Sig.
Pre-achievement test as covariance	2.775	1	2.775	.322	.573
Group	910.914	1	910.914	105.673	.000*
Error	405.145	47	8.620		
Corrected Total	1318.834	49			

() statistically significant differences at $p < .05$*

Table 4.4 presents the results of analysis of covariance (ANCOVA). It shows that there are statistically significant differences between the adjusted means of the control and the adjusted means of the experimental groups on the post-AT ($F=105.673$ $p=.000$, $df =1-47$). Table 4.4 also shows that there are statistically differences between the adjusted mean scores of the control and the experimental groups on the post-AT, in favor of the experimental group attributed to the training program (the treatment). The mean of the experimental group is 42.16 ($SD=2.32$, Adj. mean= 42.246, $p=.000$) and the mean of the control group is 33.24 ($SD= 3.41$, Adj. mean=33.154).

4.2.2 Testing of Null Hypothesis Number One:

There are no statistically significant differences at $p < .05$ between the means of the experimental and the control groups on the post-achievement test.

Based on the results in Table 4.4, the null hypothesis stating that there are no statistically significant differences between the experimental and the control groups at $p < .05$ on the post-achievement test is rejected. Consequently, the alternative hypothesis is accepted due to the fact that there are statistically significant differences between the adjusted mean scores of the two groups at $p < .05$, in favor of the experimental group.

4.2.3 Results Related to Question Number Two:

Does the training program have any effect in improving performance competencies of the resource room teachers?

The means, standard deviations, and adjusted means of the post-observation are calculated as shown in Table 4.5.

Table 4.5: Means, standard deviations, and adjusted means of the post-OS of the two groups.

Group	N	Mean	SD	Adj. Means
Control Group	25	111.74	10.719	113.090 ^a
Experimental Group	25	170.74	7.093	159.190 ^a
Total	50	126.14	26.401	136.140 ^a

Note. a. Covariates appearing in the model are evaluated at the following values: pre-OS= 111.54

Table 4.5 presents overall means, standard deviations, and adjusted means of the control and the experimental groups of the post-OS. This table shows that the mean of the experimental group is 160.64 (SD=7.093) which is higher than the mean of the control group, which is 111.64 (SD=10.72). This illustrates that there is an obvious difference in the means of the two groups, which are 49.

In order to examine if there are statistically significant differences at $p < .05$ between the control and the experimental groups on the post-OS, the analysis of covariance (ANCOVA) technique was conducted. The mean scores of the post-OS considered as a dependent variable and the independent variable is the intervention (training program) that are exposed to the experimental and the control groups and the covariance is the mean scores of the pre-OS. Table 4.6 illustrates the results of analysis of covariance (ANCOVA) between adjusted mean scores on the post-OS.

Table 4.6 Summary analysis of covariance (ANCOVA) results of the differences between the mean scores of the two groups on the post-OS

Source	Type III Sum of Squares	df	Mean Square	f	Sig.
Pre-Observation scale as covariance	668.364	1	668.364	9.045	.004*
Group	22956.410	1	22956.410	310.654	.000*
Error	3473.156	47	73.897		
Corrected Total	27097.93	49			

() statistically significant differences at $p < .05$*

Table 4.6 presents also that there are statistically significant differences between the performances of the two groups, in favor of the experimental group ($F=310.654$, $p= 0.000$). The mean of the experimental group is 160.64, ($SD= 7.59$, Adj. mean =159.91) and the mean of the control group is 111.64, ($SD= 10.72$, Adj. mean= 113.090).

4.2.4 Testing of the Null Hypothesis Number Two:

There are no statistically significant differences at $p<.05$ between the means of the experimental and the control groups on the post-observation scale.

The null hypothesis stating that there are no statistically significant differences between the experimental and the control groups at $p <.05$ on the post-observation scale was rejected. Consequently, the alternative hypothesis is accepted due to the fact that there are statistically significant differences between the performances of the two groups at $p<.05$, in favor of the experimental group.

4.3 The Descriptive Statistics Results

A four-way analysis of variance (ANOVA) was conducted to analyze if there were any significant differences between the means of the experimental and the control groups on the post-AT and post-OS due to gender, qualification, specialization and teaching experience. The research questions and hypotheses used the result from four-way of analysis of variance (ANOVA). Therefore, the results of the analysis were used to response research questions number 3 and 4 and to test hypotheses number 3 and 4.

4.3.1 Results Related to Question Number Three:

Are there any significant differences between the means of the experimental and the control groups on the post-achievement test due to gender, qualification, specialization and teaching experience?

To handle such question and know if there are any significant differences between the mean of the experimental that is enrolled into the training program and the mean of the control group which is enrolled in the conventional training program due the moderator variables, means and standard deviations are used for the two groups the experimental and the control group. The following table demonstrates the mean of the control group.

Table 4.Y summarizes the descriptive statistics for the dependent variable post-AT by the control group. In order to answer the question number three, means and standard deviations of the post-AT of control group are calculated according to the moderating variables of gender, specialization, qualification, and teaching experience. The mean of the female in the control group 33.54 (SD=2.978), which is greater than the mean of the male, which is 33.00 (SD=3.802). The mean of the other specialization in the control group is 34.21 (SD=3.166), which is greater than the mean of the teachers who have special education, which is 32.00 (SD= 3.435). The table below also shows, the mean of teachers in the bachelor level qualification is 33.66 (SD=3.084), which is greater than the mean of the teachers who have high diploma and more qualification, which is 32.84 (SD= 3.760). However, the mean for teachers who have teaching experience less than 5 years

is 33.33 (SD=2.964), which is greater than the mean for teachers who have teaching experience more than 5 years is 33.15 (SD=3.891).

Table 4.7 Means and standard deviations of the control group on post-AT according to gender, specialization, qualification, and teaching experience.

Moderating Variables	Levels	N	Mean	SD
Gender	Male	14	33.00	3.802
	Female	11	33.54	2.978
	Total	25	33.24	3.406
Specialization	Special Education	11	32.00	3.435
	Others	14	34.21	3.166
	Total	25	33.24	3.406
Qualification	Bachelor	12	33.66	3.084
	High Diploma & more	13	32.84	3.760
	Total	25	33.24	3.406
Experience	Less than 5 years	12	33.33	2.964
	More than 5 years	13	33.15	3.891
	Total	25	33.24	3.406

The data in the table 4.7 showed overall differences between the means of the control group participants on the post-AT according to the levels of the moderating variables of the study (gender, specialization, qualification, and teaching experience). In order to examine if there are statistically significant differences on post-AT according to the moderating variables of the study, four-way analysis of variance test (ANOVA) was conducted.

Table 4.8 Summary of 4-way (ANOVA) results by the post-AT of the control group according to the moderating variables: gender, specialization, qualification, and teaching experience.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Gender	4.783	1	4.783	.400	.534
Specialization	29.905	1	29.905	2.501	.129
Qualification	6.779	1	6.779	.567	.460
Experience	.543	1	.543	.045	.833
Error	239.175	20	11.959		
Corrected Total	281.185	24			

Table 4.8 presents the results of four-way analysis of variance (ANOVA) showing that there are no statistically significant differences at $p < .05$ in the performance of the control group participants on the post-AT attributed to gender, specialization, qualification and teaching experience.

After knowing that there are no statistically significant differences at $p < .05$ in the performance of the control group participants on the post-AT attributed to gender, specialization, qualification, and teaching experience. The following table demonstrates the mean of the experimental group on the post-AT. Table 4.9 summarizes the descriptive statistics for the dependent variables post-AT by the experimental group. In order to answer the question number three, means and standard deviations of the post-AT of experimental group are calculated according to the moderating variables: gender, specialization, qualification, and teaching experience. Furthermore, the table below shows that the mean of female on the

experimental group is 42.33 (SD= 2.386), and it is higher than the mean of male, which is 42.00 (SD=2.345). The mean of the teachers of others specialization is 42.33 (SD=2.225), which is higher than the mean of the teachers who have special education, which is 41.90 (SD= 2.558). The table also shows that the mean of the teachers who have bachelor qualification is 42.33 (SD=2.839), and it is higher than the mean of teachers who have high diploma and more, which is 42.00 (SD=1.825). Also the mean of teachers who have teaching experience less than 5 years is 42.84 (SD=2.303), and it is higher than the mean of teachers who have teaching experience more than 5 years is 41.41 (SD=2.193). The results are shown in table 4.9 below.

Table 4.9 Means and standard deviations of the experimental group on post-AT according to gender, specialization, qualification, and teaching experience.

Moderating 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

The data in the table 4.9 showed overall differences between the means of the experimental group participants on the post-achievement test according to the levels of the moderating variables of the study (gender, specialization, qualification, and teaching experience). In order to examine if there statistically significant differences on post-AT according to the moderating variables of the study, four-way analysis of variance test (ANOVA) was conducted.

Table 4.10 Summary of 4-way (ANOVA) results by the post-AT of the experimental group according to the moderating variables: gender, specialization, qualification, and teaching experience.

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			

Table 4.10 presents the results of four-way analysis of variance test (ANOVA) showing that there are no statistically significant differences at $p < .05$ in the performance of the experimental group participants on the post-achievement test attributed to gender, specialization, qualification, and teaching experience.

4.3.2 Testing of the Null Hypothesis Number Three:

There are no statistically significant differences at $p < .05$ between the means of the experimental and the control groups on the post-achievement test due to gender, qualification, specialization and teaching experience.

Based on the previous results, the null hypotheses stating that there are no statistically significant differences at $p < .05$ in the knowledge degree of competencies of the resource room teachers due to gender, qualification, specialization, and teaching experience. Therefore, the null hypotheses are accepted and considered correct.

4.3. 3 Results Related to Question Number Four:

Are there any significant differences between the means of the experimental and the control groups on the post-observation scale due to gender, qualification, specialization and teaching experience?

In response to this question, the mean and standard deviation are calculated for the experimental and control groups. The Four-way ANOVA is conducted to investigate whether there are significant differences between the means of the experimental and the control groups on the post observation scale due demographic variables; gender, qualification, specialization and teaching experience. The followings are the means and standard deviations for the control group on the post-observation scale.

Table 4.11 summarizes the descriptive statistics for the dependent variables post-OS by the control groups. In response to question number four, means and standard deviations of the post-OS of control group are calculated according to the moderating variables of gender, specialization, qualification, and teaching experience. The table 4.11 shows that the mean of the female in the control group is 112.45 (SD= 11.877) which is greater than the mean of the male, which is 111.00 (SD= 10.129). The mean of the other specialization teachers in the control group is 112.92 (SD= 10.358), which is greater than the mean of the teachers who have special education, which is 110.00 (SD=11.445). The table below also shows, the mean of teachers in the level bachelor qualification is 112.25 (SD=11.709), which is greater than the mean of the teachers who have High diploma and more qualification, which is 111.07 (SD= 10.169). The mean of teachers who have teaching experience less than 5 years is 112.33 (SD= 12.235), which is greater than the mean of teachers who have teaching experience more than 5 years, which is 111.00 (SD= 9.574). The results are shown in table 4.11 below:

Table 4.11 Means and standard deviations of the control group on post-OS according to gender, specialization, qualification, and teaching experience.

Moderating Variables	Levels	N	Mean	SD
Gender	Male	14	111.00	10.129
	Female	11	112.45	11.877
	Total	25	111.64	10.719
Specialization	Special Education	11	110.00	11.445
	Others	14	112.92	10.338
	Total	25	111.64	10.719
Qualification	Bachelor	12	112.25	11.709
	High Diploma& more	13	111.07	10.169
	Total	25	111.64	10.719
Experience	Less than 5 years	13	112.33	12.235
	More than 5 years	12	111.00	9.574
	Total	25	111.64	10.719

The data in the table 4.11 showed overall differences between the means of the control group participants on the post-OS according to the levels of the moderating variables of the study (gender, specialization, qualification, and teaching experience). In order to examine if there are statistically significant differences on post-OS according to the moderating variables of the study, four-way analysis of variance test (ANOVA) is conducted. The results are shown in table 4.12 below.

Table 4.12 Summary of 4-way (ANOVA) results by the post-OS of the control group according to the moderating variables: gender, specialization, qualification, and teaching experience.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Gender	28.913	1	28.913	.217	.647
Specialization	43.648	1	43.648	.327	.574
Qualification	15.852	1	15.852	.119	.734
Experience	4.705	1	4.705	.035	.853
Error	2667.294	20	133.365		
Corrected Total	2760.412	24			

Table 4.12 presents the results of four-way analysis of variance test (ANOVA) showing that there are no statistically significant differences at $p < .05$ in the means performance of the control group participants on the post-OS attributed to gender, specialization, qualification, and teaching experience.

After the calculation of the means and standard deviations and Four –way analysis variance for the control group .In here, the means and standard deviations and Four-way ANOVA for the experimental group on the post-OS according to the moderating variables; gender, qualification, specialization, and teaching experience.

Table 4.13 summarizes the descriptive statistics for the dependent variables post-OS by the experimental group. In order to answer the question number four, means and standard deviations of the post-OS of the experimental group are calculated according to the moderating variables of gender, specialization,

qualification, and teaching experience. The table below shows that the mean of male on the experimental group is 164.15 (SD= 6.189), and it is higher than the mean of female, which is 156.83 (SD= 7.321). Regarding specialization, the mean of the special education teachers is 161.70 (SD= 7.056), which is higher than the mean of the teachers of other specializations, which is 159.93 (SD= 8.093). The table also shows that the mean of teachers who have high diploma and more qualifications is 162.38 (SD=8.211), and it is higher than the mean of teachers who have bachelor, which is 158.75 (SD=6.689). Also the mean of teachers who have teaching experience more than 5 years is 163.66 (SD= 5.482), and it is higher than the mean of teachers who have teaching experience less than 5 years which is 157.85 (SD= 8.375). The results are shown in table 4.13 below:

Table 4.13 Means and standard deviations of the experimental group on post-OS according to gender, specialization, qualification, and teaching experience.

Moderating Variables	Levels	N	Mean	S D
Gender	Male	13	164.15	6.189
	Female	12	156.83	7.321
	Total	25	160.64	7.593
Specialization	Special Education	10	161.70	7.056
	Others	15	159.93	8.092
	Total	25	160.64	7.593
Qualification	Bachelor	12	158.75	6.689
	High Diploma& more	13	162.38	8.211
	Total	25	160.64	7.593
Experience	Less than 5 years	13	157.84	8.375
	More than 5 years	12	163.66	5.482
	Total	25	160.64	7.593

Table 4.13 presents the results of overall differences between the means of the experimental group participants on the post-OS according to the levels of the moderating variables of the study (gender, specialization, qualification, and teaching experience). In order to examine if there are statistically significant differences on post-OS according to the moderating variables of the study, four-way analysis of variance test (ANOVA) is conducted. The results are shown in table 4.14 below.

Table 4.14 Summary of 4-way (ANOVA) results by the post-OS of the experimental group according to the moderating variables: gender, specialization, qualification, and teaching experience.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Gender	85.091	1	85.091	1.685	.209
Specialization	9.062	1	9.062	.179	.676
Qualification	18.100	1	18.100	.358	.556
Experience	19.834	1	19.834	.393	.538
Error	1010.071	20	50.504		
Corrected Total	1142.158	24			

Table 4.14 presents the results of four-way analysis of variance test (ANOVA) showing that there are no statistically significant differences at $p < .05$ in the means performance of the experimental group participants on the post-OS attributed to gender, specialization, qualification, and teaching experience.

4.3.4 Testing the Null Hypothesis Number Four:

There are no statistically significant differences at $p < .05$ between the means of the experimental and the control groups on the post-observation scale due to gender, qualification, specialization and teaching experience.

Based on the previous results, the null hypotheses stated that there are no statistically significant differences at $p < .05$ between the means of experimental and control groups on the post-observation scale due to gender, qualification, specialization and teaching experience. Therefore, the null hypotheses are accepted and considered correct.

4.4 Summary of Quantitative Data Analysis

The analysis of covariance (ANCOVA) was used due to the appearance of significant differences that have statistically indication between the means of the control and the experimental groups on the post-achievement test and post-observation scale .The results of ANCOVA revealed that there are significant differences between the adjusted means of the control and the experimental groups. In addition, significant differences favored the experimental group. This shows the effects of the training program in improving knowledge and performance competencies for resource room teachers.

On the other hand, the four-way analysis of variance (ANOVA) was conducted to test if there are any significant differences between the means of the control and the experimental groups on the post-achievement test and post-observation scale

due to gender, qualification, specialization, and teaching experience. The results of ANOVA revealed that there are no significant differences between the means of two groups due to gender, qualification, specialization, and teaching experience.

4.5 Qualitative Data Analysis

In this study, the researcher used the qualitative methods such as classroom observations and interviews the researcher conducted with teachers in order to obtain information attainable by the classroom observations and interviews. The interview protocol included a group of questions designed to evaluate the personal and the professional competencies of the resource room teachers. In order to identify the training needs, three (3) PhD scholars were asked to help conducting the pre-interviews and the post- interviews with the control and the experimental groups.

The data analysis matrix was developed for the purpose of analyzing the qualitative data for the four domains (knowledge, performance, classroom management and evaluation, and professional and personal competencies) of the study. The matrix consists of ten (10) questions distributed to the domain of the personal and the professional competencies. The answers were classified in the data analysis matrix developed by the researcher. Table 4.15 summarizes the pre-interviews that were conducted for the experimental and the control groups.

Table 4.15: Pre-interview transcript analysis summary

	Personal and professional competencies: Question:	Responses	Freq (Of 50)	%
1.	Needs for developing competencies	Designing instructional objectives, Individualized training program, instructional strategies, standardized evaluation	38	76
2.	Means to Acquire competencies	self-training 30% Workshops 60% Others 10%	44	88
3.	Self-evaluation abilities	High vs Low	40	80
4.	Need for an effective in-service training program	Yes vs No	46	92
5.	The importance of students-teacher close relationship	Starting friendly relations with the students, based on mutual respect between the teacher and the learners	36	72
6.	The use of Cooperative Learning Strategies	A small number of the sample emphasized cooperative learning	20	40
7.	Teacher-Parents relationships	A small number of the sample cooperate with the parents regarding problems related to their children in the resource rooms	16	32
8.	Developing own instructional materials	A moderate percentage of the sample work to use the material of the environment	32	64
9.	Conducting research related to special education	A small number of the sample conduct research regarding special education	12	24
10.	Interactions among teachers, supervisors and administrators	There are mutual frequent visits between teachers in the resource rooms, the teachers of the regular rooms and administration	34	68

4.5.1 Analysis of the pre-interview transcripts

1. Question 1: Do you think that you have any instructional competencies that need to be developed?

From table 4.15 we notice that 38 resource room teachers (76%) believed that they need some kind of training program in the field of planning, classroom management, and evaluation competencies. Furthermore, after analyzing the teachers' responses for this particular question, it was found that most teachers stated that they do have training needs regarding the skills in designing clear instructional objectives. The process of designing clear instructional objectives facilitates the selection of the instructional content. They also have needs regarding designing the individualized training program for each student with learning disabilities joining the resource rooms. The individualized training program they currently develop is incomplete and lacking certain elements regarding the time factor and evaluation. Furthermore, the majority of the teachers thought that they need training regarding the use of current instructional ways and strategies for teaching students with learning disabilities.

On the other hand, small percentage of the sample stated that they do not have any needs for training in the fields previously mentioned. However, they have needs regarding formative and summative evaluation. They need to learn how to use formal and informal evaluation tests in order to learn how to discover students with learning disabilities and to determine their achievement level. For example, a teacher said:

“In fact, there are several competencies that I have never received enough pre-service training on, especially concerning the contemporary instructional strategies that could be used in teaching children with learning disabilities. I also do not have enough knowledge about conducting formative and summative tests”

(Teacher #35/male/Post-graduate diploma/< 5 years of experience)

2. Question 2: Would you prefer to acquire/learn new knowledge and skills through the process of self-learning or training workshops?

Table 4.15 shows that the majority of the interviewees preferred attending workshops (60%) than self training (30%) The later thought that they can fulfill their needs by depending on themselves and their personal capabilities regarding designing the instructional and the educational objectives, designing the individualized training program by referring to reference books related to teaching students with learning disabilities. The former, conversely, stated that they the workshops, either in or out of school, are important. The teachers would benefit from others' experiences and from the new things the workshops provide by bringing in new ideas used with students with learning disabilities. For example a female teacher said:

“I prefer learning these needs and competencies by discussion, debate, and others' experiences in the field. I also prefer receiving practical more than theoretical knowledge. Workshops are better than self-learning, since self-learning does not allow me the opportunity to benefit form the new knowledge and experiences in the field of special education.”

(Teacher #47/female/bachelor's degree, other areas of specialty/ < 5 years of experience)

On the other hand, 10% of the sample stated that they satisfy their training needs through other means such as from their colleagues' experience and consultations in various fields regarding planning, classroom management, and evaluation.”

3. Question 3: Can you evaluate your own performance?

Table 4.15 shows that 80% of the interviewees thought that they has the ability to self-evaluate their own performances and achievement during the in-service training programs. However, 20% of the teachers indicated that they wish to be evaluated by the instructor in order to exclude the bias factor and give more reliability to the evaluation. For example a teacher said:

“I think that the objective of those training programs is to give to my colleagues and I the necessary self-evaluation skills and competencies; I like evaluating myself because I can see my own potentials and strengths as well as weaknesses”

(Teacher #25/male/Bachelor's Degree, other areas of specialty/ > 5 years of experience)

4. Question 4: Do you need an effective in-service training program?

Table 4.15 shows that 92% of the study sample agreed that they are in need for an in-service training program urgently in order to address the appropriate ways of dealing with the students with learning disabilities. They also indicated the many benefits the teachers would gain by attending such training programs. Such in-service training programs go beyond the theoretical aspect they normally exposed at the university and reach the empirical aspect, which enables them to acquire

experimental skills about the appropriate instructional ways to help the students.

For example, a female teacher said:

“Actually, I am an advocate of holding in-service training programs for my colleagues and me because the development that takes place in the field of special education is fast. Teachers should be able to use the new strategies in the resource room to help learners with learning disabilities. I do not have practical experience in this field, and at the beginning of my service, I encountered difficulties in the competencies of planning and classroom management. I had no experience of conducting formative and summative tests.”

(Teacher # 32/female/Post graduate diploma / < than 5 years of experience)

There are also 8% of the respondents who mentioned that according to their personal conviction, such in-service training programs are merely a wasting of time and would never add any innovative ideas. They also stated that they do not need any in-service training programs because they did not have time to attend such training programs.

5. Question 5: In term of classroom management aspect, what is your opinion about creating close relationship between teachers and learners?

Table 4.15 shows that 72% of the interviewees believed in the importance of students-teachers' close relationships and interactions which are based on mutual respect in the resource room. They said that these humane factor influences could help the students with learning disabilities to develop their mental and academic capabilities and make the best of them. The friendly relationship with the teachers reflects positively on self appreciation on the students' part. This relationship would

also help improving the attitudes of the normal students towards their abnormal classmates who have learning disabilities.

However, 28% of the samples indicate that they do not have the ability to build friendly relationships with the learners with learning disabilities due to the fact that these learners suffer from different kinds of physical and psychological disorders such as perception, attention, and retrieval of information. Furthermore, they think that these students are difficult to control them and they need more time and patience. Thus, it is difficult to form positive views towards these students with learning disabilities due to the fact that these learners sometimes believe that they are not important, lazy, handicapped; in addition, their regular classmates look down on them; thus, creating low self-esteem and low self-confidence. A teacher said:

“I actually find it is difficult to deal with learners with learning disabilities due to their weak cognitive ability and slow comprehension, in addition to the difficulty of establishing discipline. Consequently, I refrain from establishing friendly relations with them.”

(Teacher #3/male/Post graduate diploma, other areas of specialty/
> than 5 years of experience)

6. Question 6: Do you use cooperative learning strategies in your teaching?

Table 4.15 portrays that 40% of the interviewed teachers stated that they had developed friendly relationships with the learners joining the resource room by using cooperative learning strategies in their instruction. They also stressed the great benefit of developing cooperation and familiarity among the learners. They

stated that the learners felt that the strategies are of great value and felt satisfied since they had received feedback and reinforcement from the teacher, which goes beyond the classroom to the exterior and co-operation reaches other regular classmates and the society around them.

This means that majority of the teachers in the study, 60% of them; do not use cooperative learning approach during their instruction with the learners with learning disabilities. They stressed that using these strategies do not work well with learners with learning disabilities in the resource room due to the fact that their academic level is very low and they do not benefit from work cooperatively with each other. They added that using cooperative learning method with learners with learning disabilities is a waste of time because it will cause chaos in the resource room and would be of distractions to other students. Furthermore, the strategy is time and effort consuming on the teachers' part since the teacher in the resource room will need an individualized instructional program for each. For example a female teacher said:

“I think that individualized education is one of the best instructional strategies, and it is better than cooperative learning, since cooperative learning is used with regular learners more than with learners with learning disabilities. And since learners in the resource rooms have similar level of intelligence, I think there is a little chance for them to benefit from each other intellectually. I believe that using cooperative learning strategy in the resource room is merely a waste of time since it would distract learners' attention and creates chaos.”

(Teacher #9/female/Bachelor's Degree, Special education/ < than 5 years of experience)

7. Question 7: Do you consult the parents and work cooperatively with them regarding their children?

Only 32% of the interviewed resource room teachers believe in the value of cooperation with the parents. Majority of the interviewed teachers indicated that there is a big problem with many parents when their children are diagnosed with learning disabilities and are sent to the resource room. The teachers stated that parents rarely followed up their children's academic progress at home and this reflects negatively on their children. The parents-teachers meetings are often attended by only a few parents, which show the little cooperation on the parents' part. For example a male teacher said:

“there is no cooperation between the parents of the children with learning disabilities and the teachers in the resource room. We rarely see parents coming to see the achievement of their children and to examine the level of their performances. They view the resource room in a negative way and consider it a place where the handicapped children gathered. There should be some programs of awareness and guidance to modify the attitudes of the parents and the community towards the children with learning disabilities and the resource room.”

(teacher #17/male/Post graduate diploma, other areas of specialty/
> than 5 years of experience)

8. Question 8: Do you use the materials available around you to develop instructional aids?

Table 4.15 portrays that 64% of the study sample have been making and producing instructional aids from the material available in the environment to be used in the resource room with the learners with learning disabilities. This is important because these learners deal with concrete things that are close to their

reality, which facilitates understanding concepts and meaning. The teachers also stated that a lot of materials are available in the environment but are not properly used. These materials have an important role in teaching concepts and terminologies such as the arithmetical operations, alphabets, words, and ideas because it can relate it to the concrete examples in the real world and avoid abstract things that are difficult for the learners to grasp without relating them to concrete examples. For example, a female teacher said:

“I prefer to design instructional aid from the materials available in the environment because this material is close to the learners, and it is easy for the learners to deal with it and comprehend many things relate to it. These things are tangible things close to their reality, especially when used to learn basic skills in mathematics. They are also used in learning other instructional courses.”

(teacher # 1/female/bachelor’s degree, other areas of specialty/ > 5 years of experience)

Nevertheless, about 36% of the study sample stated that they do not use the material available in the environment to make and produce the instructional aids claiming that they do not have time to make such instructional aids. They also believed that using the materials in the environment is a traditional process that does not cope with using the modern and developed instructional aids in teaching learners with learning disabilities.

9. Question 9: Have you ever conducted any research in special education? If yes, did you have any difficulty conducting them?

Table 4.15 shows that only 24% of the interviewees had conducting scientific research related to special education. So, majority of the teachers in the study, 76%, have never conducted any scientific research in special education due to lack of time and knowledge in doing so. They also stressed that books and magazines in the field of scientific research are very hard to find in the school libraries. They also pointed out that no incentive has been given to teachers who conduct or attempt to conduct scientific research in this field. Furthermore, even individuals in charge in the Department of Educational Studies and Research of the Ministry of Education have not encouraged them in conducting such scientific research. These factors therefore ensure the teachers to remain in their traditional roles of not attempting to conduct scientific research. For example, a male teacher said:

“Doing and writing scientific research in the field of special education is a hard work and needs time and availability, and we, at schools, do not have time. In addition, we lack many skills regarding scientific research. Furthermore, there is a shortage of books and magazines at the school libraries. The main reason behind the shortage of scientific research is the many responsibilities and tasks given to the teachers, both at or out of the school. Needless to mention the lack of incentives given to the teachers.”

(teacher #39/male/Post graduate Diploma, other areas of specialty/< 5 years of experience)

The teachers who stated that they conduct simple scientific research in the field of special education (24%) did it due to the fact that they personally favor research and knowledge exploration, in addition to their own desire to learn new things

regardless of the incentives. They believe that research represents personal success to them in achieving their goals.

10. Question 10: Do you have good communication channels with other teachers, administrators, and supervisors?

Table 4.15 shows that majority of the teachers in the study, 68%, stated that they communicate and interact with the school administration and the supervisors. They stated that there are mutual relationships and visits between the resource room teachers and the regular teachers to follow up on the learners' progress. They also stated that the school administration keeps visiting to the resource rooms regularly to follow up the progress of the learners with learning disabilities and meet the resource room teachers. Furthermore, they also stated that there are regular visits conducted by the supervisors to the resource rooms to evaluate teachers' work in the resource room and to measure and make reports concerning the teachers' competencies in dealing with learners with learning disabilities. The reports usually include information about the methodologies and instructional activities teachers use to achieve the required objectives. The supervisors usually provide the resource room teachers with new information and methodologies used in special education. For example an interviewee said:

“There are some cooperation between the school administrators, the supervisors, the teachers in the regular classes and the teachers in the resource room. There are numerous visits done by the school headmistress to the resource room to check on the methodologies used with the learners with learning disabilities, and the level of improvement they showed.”

(teacher #21/female/Bachelor's Degree, special education/< 5 years of experience)

On the other hand, 32% of the teachers stated that the visits of the regular teachers to the resource room are very rare due to the fact that they do not have time for such visits. Likewise, there are very few visits by the school administrators and by the supervisors to the resource rooms due to the many responsibilities they already have.

4.5.2 Summary of results of pre-interviews

It's clear from the interviewees' responses during the pre-interview (see table 4.15) that they:

- Want to have training on designing instructional objectives, the individualized educational program, instructional strategies, instructional aids, and standardized evaluation.
- Need to develop their competencies (76%)
- Can satisfy this need on their own and using workshops (60%)
- Need an in-service training program (92%)
- Emphasized the importance of the friendly relationships with learners (72%).
- Assured the existence of the friendly relationship with the regular teachers and the administration (68%)

- Showed that they have the ability to use the materials available in the local environment (64%).
- Showed a low response on developing cooperation spirit among learners using cooperative learning.
- Displayed a low response on cooperation with the parents regarding their children in the resource room, and conducting research in the field of special education.

4.5.3 Analyzing the responses (transcripts) of the experimental group participants on the post-interview sessions.

In order to investigate the effect of the training program module in developing the personal and professional competencies, the post-interviews were conducted for the experimental group members. Table 4.16 shows the array of the data analysis in the field of the personal and the professional competencies distributed into the same questions used in the pre-interview

Table 4.16 Qualitative data analysis in the field of the personal and the professional competencies (the post- interviews of the experimental group members)

No	Personal and professional competencies	Analysis factors	Freq	%
1.	Needs for developing competencies	The majority of the teachers showed no need for training in the field of planning, instructional and classroom management, evaluation, and personal and professional competencies	24	96
2.	Means to Acquire competencies	Can satisfy their instructional need by Workshops and in-service training programs	24	96
3.	Self-evaluation abilities	Ability to evaluate own performance	22	88
4.	Need for an effective in-service training program	Believed in the importance of in-service training programs	24	96
5.	The importance of students-teacher close relationship	Starting friendly relations with the students, based on mutual respect between the teacher and the learners	20	80
6.	The use of Cooperative Learning Strategies	Realizing the importance of cooperative learning	23	92
7.	Teacher-Parents relationships	Realizing the importance of cooperation with the parents regarding their children's problems and the need to follow up on their work progress	24	96
8.	Developing own instructional materials	Using the materials in the environment to develop instructional aids	19	76
9.	Conducting research related to special education	Realizing the importance of conducting research in the field of special education	21	84
10.	Interactions among teachers, supervisors and administrators	Frequent mutual visits between resource room's teachers, regular rooms teachers and administration, plus visits by supervisors to the resource rooms	21	84

The following are the discussion of the interviewees' responses on each questions of the post-interview (the experimental group):

1. Question 1: Do you think that you have any instructional competencies that need to be developed?

It is clear from table 4.16 that the interviewees stated that they do not have any need for training in the field of planning, classroom management, and evaluation. About 96% of the group mentioned that they are capable of designing the individualized educational program for each student in the resource room. They also provide that they are capable of designing behavioral objectives and use the appropriate instructional strategies. They stated that they now have the ability and the knowledge of current strategies of classroom management and that they can overcome numerous problems they often encountered in the resource room. Furthermore, they stated that they are now aware of the formative and the summative evaluation strategies. They also appreciated the training program and confirmed that the benefit from the program was significant on both the theoretical and the practical sides. For example a teacher said:

“The training program I attended was excellent. I had benefited from it and developed many skills I need, especially in the field of designing the individualized educational and instructional plan. I also developed instructional skills and strategies to be used for learners with learning disabilities.”

(teacher #5/male/bachelor's degree, special education/< than 5 years of experience)

2. Question 2: Would you prefer to acquire/learn new knowledge and skills through the process of self-learning or training workshops?

Table 4.16 shows that the majority of the experimental group's subjects (96%) have confirmed that they are capable of satisfying their needs by workshops or in-service training program. The analysis of the sample responses to this question shows that most subjects stated that there were needs for training, but these needs have been fulfilled by the training program they attended. However, some stated that these in-service workshops and training programs are more effective than self training. For example a female teacher stated that:

“The workshops played a great role in achieving varied information about resource rooms and learners with learning disabilities. I learned many things and skills from the training program.”

(teacher # 12/female/Post graduate diploma, other areas of specialty/ > than 5 years of experience)

3. Question 3: Can you evaluate your own performance?

Table 4.16 shows that majority of the experimental group participants (88%) believed that they are capable of self-evaluating their own achievement. The analysis of the responses to this question shows that the majority of the experimental group is capable of self-evaluating their achievement on the questions of the pre-test and the post test given to them at the beginning and at the end of each training unit of the training program. It is obvious that the training program has helped them to develop the ability to evaluate their own achievement in order to discover their real capabilities. For example, a teacher said:

“the training program had given me the confidence to evaluate myself, since self-evaluation regarding performances not usually presented in the in-service conventional programs.”

(Teacher # 8 /male/Bachelor's degree, special education/< than 5 years of experience)

4. Question 4: Do you need an effective in-service training program?

Table 4.16 shows that the majority of the participants in the experimental group, 96%, stressed they urgently need an in-service training program in order to develop and enhance their professional performance. For instance, an interviewee said:

“The training program I attended has provided me with the importance of such in-service training programs since these programs cope with the advances in the field of special education.”

(Teacher #21/female/bachelors degree, special education/< than 5 years).

The teachers also stated that these training programs are important since the programs include numerous comprehensive elements related to the performance of the teachers with learners with learning disabilities in the resource room, specifically on the theoretical knowledge and practical skills in teaching methodologies used with learners with learning disabilities. The teachers also stated that the Ministry of Education should adopt such in-service programs for teachers of special education where the teachers meet specialists in the field of special education.

5. Question 5: In term of classroom management aspect, what is your opinion about creating close relationship between teachers and learners?

Table 4.16 shows that the majority of the experimental group's interviewees, 80%, stressed the importance of interacting with the learners in the resource room in such a way that enable the learners to develop positive attitudes about themselves. They believed that interaction with the learners in the resource room is necessary for the learners to feel respect, compassion, and security, which are positively reflected on their progress. These also, in turn, can enhance learners' self-confidence and change the routine concept and low self-esteem. It is obvious that the training program has drawn teachers' attention to the importance of the positive interaction with the learners. A male teacher mentioned:

“I changed my negative attitude regarding treating of learners with learning disabilities. Through the training program, I realized the many positive things that could influence the learners' attitudes and self-confidence, since positive interaction with the learners motivates them to progress in achievement.”

(Teacher # 25/male/post graduate diploma, other areas of specialty/ > than 5 years of experience)

6- Question 6: Do you use cooperative learning strategies in your teaching?

Table 4.16 shows that 92% of the interviewed experimental group's members stressed the importance of promoting cooperation among learners using cooperative learning as strategies of instruction. They stated that using cooperative learning strategies, such as peer teaching and small group activities help to promote cooperation spirit among the learners. They also stated that using such strategies bring about great benefits to the learners with learning disabilities since they give them more self-confidence, sense of responsibility, mutual respect to

colleagues, and participation in group activities. These methods also benefit the learners by overcoming weak points and developing strength points. The teachers also stated that the training program helped them to use the cooperative learning strategies since the program includes a training unit discussing the way to use cooperative learning with learners with learning disabilities. For example, an interviewee said:

“I did not expect that cooperative learning strategy would have such a great benefit in teaching learners with learning disabilities. After using this method, I realized the positive effects on learners’ level of comprehension, especially when received through their colleagues.”

(teacher # 11/female/bachelor’s degree, special education/> than 5 years of experience)

7. Question 7: Do you consult the parents and work cooperatively with them regarding their children?

Table 4.16 shows that the majority of the experimental group’s members, 96%, are aware of the importance of cooperating with the parents regarding their children in the resource room. This cooperation helps parents to follow up the progress of their children and to become aware of the problems that their children encountered in the resource room. The teachers believed that parents’ involvement can instill confidence in their children. The teachers also stated that it is necessary to hold more teachers-parents meetings to discuss the problems and to help designing the individualized training program because the parents are an integral part of the individualized training program. The parents could provide necessary information to interpret the circumstances that led to the learning disability. The teachers also

stressed the importance of the parents' follow up at home. For example a teacher said:

“The training program drew my attention to the importance of changing the parents' attitudes regarding learners with learning disabilities. I invited the parents of the learners with learning disabilities in the resource room, and during this visit, I explained numerous things regarding learners with learning disabilities and the services the resource rooms provide in order to improve the behavioral and achievement levels.”

(Teacher # 3/male/bachelor's degree, special education/> than 5 years of experience)

8. Question 8: Do you use the materials available around you to develop instructional aids?

Table 4.16 shows that 76% of the experimental group's members are aware of the importance of developing instructional aids from materials available in the local environment. Students can normally relate closely to these aids and consequently, they become easier for the learners to deal with since they are concrete to them. They also stated that learners benefit from these aids in the process of learning abstract concept such as learning the basic arithmetic skills. Furthermore, the teachers added that such aids are cheap, easily accessible and using them does not contradict with any contemporary learning strategies. For instance, a female teacher said:

“I now realized, through the many live models I observed during the training program and their application in the resource room, how much the learners comprehend better when teachers used the materials available in the environment.”

(teacher # 8/female/postgraduate diploma, other areas of specialty/> than 5 years of experience)

9. Question 9: Have you ever conducted any Special Educational research?

In case, yes, did you have any difficulty conducting them?

Table 4.16 shows that the majority of the experimental group's members, 84%, are aware of the importance of conducting scientific research related to special education in term of knowledge generation. They stated that the training program had guided to recognize the importance of conducting such research. However, the teachers believe that for this culture of research work to come into reality, it is necessary for the concerned parties to provide incentives to the teachers of special education to encourage them to conduct such research thus benefiting learners with learning disabilities. A teacher stated:

“I realized the importance of conducting scientific research in the field of special education because it provided me with skills and information that keep me informed about advances in the field of special education. The training program drew my attention to the fact that conducting scientific research can help us find solutions to problems teachers of special education may encounter.”

(teacher # 7 male/post-graduate diploma or higher, other areas specialty/< than 5 years of experience

10. Question 10: Do you have good communication channels with teachers, administration, and supervisors?

Table 4.16 shows that the majority of the experimental group's members, 84%, are aware of the importance of creating good channels of communication and interaction with the regular teachers, the school administrators, and the supervisors. They stressed the importance of the regular teachers' visits to the resource room to follow up the progress of the learners with learning disabilities because these learners spend only a short time in the resource room and then

return back to their regular classroom with regular classmates. The teachers also stated that it is necessary for the principal of the school to visit regularly the resource room. The principal should also provide help and counselling to the teachers of the resource room. The teachers added that there should be more visits by the supervisors to the resource room since all these visits play an important role in teaching learners with learning disabilities. For example a teacher said:

“The training program I attended motivated me to conduct numerous meetings with the teachers of the regular classrooms to explain some information about the role that the resource room plays in improving the skills of mathematics and reading of the learners with learning disabilities.”

(teacher #19/femal/bachelor’s degree, special education/> than 5 years of experience)

4.5.4 Summary of results of post-interviews (the experimental group)

In short, Table 4.16 shows that after the completion of the training program with the experimental group members, they have achieved their objectives of developing the achievement and the performance competencies. It is clear that the training program has developed the knowledge and the performance skills of the resource room teachers. The analyses of the data of the post-interviews for the experimental group members support the results of the study.

4.5.5 Analyzing the Control group's responses on the post-interviews (transcripts)

In order to examine the effects of the conventional training program in improving the personal and professional competencies for resource room teachers, the post-interviews were conducted for the control group participants.

The control group's responses on the post-interview, which was conducted with them after they had done with a conventional training program adopted by the Ministry of Education in Jordan. The responses of the control group on the post-interview indicated that there was no change from pre-interview. The following is the analysis of the control-group on the post-interview questions.

1- Question 1: Do you think that you have any instructional competencies that need to be developed?

Most of the control groups' participants showed that they still have training needs in the fields of planning, education, classroom management, and evaluation. The majority of the participants showed that the adopted training program, which is supervised by the Ministry of Education did not meet their training needs. This program was delivered to all teachers regardless of their fields and majors as well as the category of students taught, that whether in terms of normal students or students with special needs .The teachers also indicated that the conventional training program did not contain practical and theoretical skills about the teaching effectiveness within the classroom set and their management strategies. For example a teacher said:

“The training program that the Ministry of Education offers does not satisfy my training needs, especially in the field of evaluation, planning, and instructional strategies. The main focus was on the theoretical sides.”

(teacher # 2/male/postgraduate diploma, special education/> than 5 years of experience)

2- Question 2: Would you prefer to acquire/learn new knowledge and skills through the process of self-learning or training workshops?

Majority of the control group’s teachers pointed out the importance of the in-service training program as it updates them with latest knowledge in the field of special education. However, they offered their displeasure with the format and methods of the training program. They believed that the training should not be confined to the worksheets and lectures methods only as was implemented by the Ministry of Education in Jordan. For example a teacher said:

“I wish that the training program was on the form of workshops since lecturing was the main strategy used.”

(teacher # 10 /female/bachelor’s degree, special education/> than 5 years of experience)

3- Question 3: Can you evaluate your own performance?

Most of the control group participants indicated that the conventional training program does not contain the method of performance self-evaluation both as formative and summative evaluations approaches. Consequently, the control group participants do not have the opportunity to evaluate their own performance. As a teacher said:

“Maybe, I can evaluate my own performance, but I prefer that a trainer evaluates my performance because he has the experience and the knowledge that enables him to evaluate what is wrong and what is right.”

(Teacher # 19/male/Bachelor’s degree, other areas of specialty/more than 5 years of experience)

4- Question 4: Do you need an effective in-service training program?

The control group participants assured their need for in-service training programs that depend on new methods in delivering these programs to the teachers. However, these methods should not be confined to the traditional methods. For example, a teacher said:

“I think training programs are really important and indispensable; however, this program must be up-to-date and focusing on new teaching methodologies. These programs must also be based on the actual needs of the teachers.”

(teacher # 24/female/postgraduate diploma, other areas of specialty/< than 5 years of experience)

5- Question 5: In term of classroom management aspect, what is your opinion about creating close relationship between teachers and learners?

Many of the control group participants indicated the importance of the interaction with learners in the resource room which is based on friendly relationships with the students. However, the teachers stated that the conventional training program had not provided them with sufficient information about the interaction process with students with learning disabilities. For example, a teacher said:

“I frankly encourage interaction with the learners with learning disabilities to create an environment of familiarity and attraction

between the teachers and the learners; consequently reinforcing the learners' self-confidence and enhancing performance.”

(teacher # 15/male/bachelor's degree/other areas of specialty/< than 5 years of experience)

6- Question 6: Do you use cooperative learning strategies in your teaching?

Though the control group teachers pointed out the significance of the cooperative learning in teaching normal students, they mentioned that the recommended program had not provided them with any information about the usage of the cooperative learning strategies with learners in the resource room. Consequently, the teachers remained with the belief that the best method in students teaching within the resource room is the individualized instruction process. For example a teacher said:

“I think the methodology of individualized instruction is the best, and this is what the training program offered by the Ministry of Education focused on. The program did not focus on cooperative learning since this is used with regular students.”

(teacher #1 /female/ bachelor's degree, special education/> than 5 years of experience)

7- Question 7: Do you consult the parents and work cooperatively with them regarding their children?

Most of the participants in the control group indicated the importance of the parental cooperation through a channel of teachers-parents' conferences. However, it was pointed out that the conventional training program had not provided them with any information and skills related to teachers-parents conferences. For example a teacher said:

“Parents involvement on their children in the resource room is minimal, and we as teachers try in vain to invite the parent, but they give excuses for not coming. They say that they do not have enough time to visit the resource room.”

(Teacher # 13/male/postgraduate diploma or higher, special education/> than 5 years o experience)

8- Question 8: Do you use the materials available around you to develop instructional aids?

Majority of the control group participants insisted on the importance of making and producing the instructional aids from the available materials in the environment, especially for students with learning disabilities because they learn normally through many teaching aids such as audio-visual, sensor motors, and Audio methods. For example a teacher said:

“I frankly prefer using available instructional aids because I do not have enough time to prepare others from material available in the local environment.”

(teacher # 22/femle/bachelor’s degree, other areas of specialty/> than 5 years of experience)

9- Question 9. Have you ever conducted any Special Educational research? In case, yes, did you have any difficulty conducting them?

The teachers’ responses on this question were similar to that of what had been conducted in the pre-interview, as it was indicated that scarcity of educational researches in the field of special education. This shows the teachers’ dissatisfaction of the training program as it did not contain any information about the preparation of educational researches. For example, a teacher said:

“The process of conducting scientific research in the field of special education is a time consuming, and I as a teacher and a family man perform a lot of responsibilities, in addition to the task of teaching. There are no incentives to conduct such research.”

(teacher 8/male/bachelor’s degree, other areas of specialty/less than 5 years of experience)

10- Question 10: Do you have good communication channels with other teachers, administrators, and supervisors?

Most of the control group participants insisted on the importance of good communication and mutual relations with teachers, administrators, supervisors, and colleagues due to their beneficial returns for the students affiliated with the resource room. For example a teacher said:

“I strongly encourage communication and cooperation with the teachers of the regular classrooms, supervisors, and school administrators because this cooperation plays an important role completing my role in the resource room. This kind of cooperation is available at my school, but I hope to increase such cooperation.

(Teacher # number 25/female/postgraduate diploma, special education/< than 5 years of experience)

4.5.6 Summary of results of post-interview (the control group)

The objectives of the post-interviews are to determine the opinions, feelings and attitudes of the teachers towards the conventional training program and to examine if the program has enhanced the personal and professional competencies of the teachers. The analysis of the post-interviews transcripts of the control group participants showed that there is still need to promote:

- Cooperation among learners in the resource room through the use of cooperative learning methodologies
- Cooperation between the teachers and the parents in matters related to their children in the resource room
- Research in the field of special education.

However, results related to the control group showed that the conducted the conventional training program did not meet their training needs. The program is a general program and is based on lectures method.

4.6 Qualitative Documents Analysis through classroom observations.

4.6.1 Pre-Treatment - First domain: Instructional Planning

The researcher and his assistants examined the teachers' files that include the individual instructional plan and the daily preparation. They noticed that there are some weak points in writing the individual instructional plan. The objectives were not written in a correct way. Furthermore, the teachers neither adhered to the instructional plan nor adhere to the time specified for finishing the individual instructional plan. Some teachers do not use the daily follow up form, and sometimes, the current students' level does not get defined. Teachers do not take into consideration the level of the cognitive, the psychomotor, or the affective objectives. We also noticed that general objectives do not sometimes get divided into sub-objectives.

4.6.2 Pre-treatment - The second domain: Evaluation

The researcher and his assistants noticed the absence of special records where learners' behaviors are recorded. They also noticed that some of the teachers are incapable of interpreting the results of the tests given to learners with learning disabilities. Those teachers usually focused on using standardized tests and the academic sides more than on the social and the affective behavior of the learners. The teachers rarely used remedial plans in light of the feedback given.

4.6.3 Post-treatment - First domain: Instructional planning

After conducting the training program module with the experimental group, it was noticed that there was great improvement on the teachers' preparation of the individualized educational program for each learner in the resource room. The members of the experimental group acquired the ability to measure the current level of each learner in the resource room by conducting the tests specifically used for diagnosing learning disabilities. There was also a great improvement on adhering to the individualized educational program and achieving the objectives within the time specified. By referring to the files teachers keep, the researcher noticed that the individualized educational programs included all the elements it should include. It was also noticed that teachers took into consideration the level of cognitive, psychomotor, and the affective objectives.

On the other hand, it was noticed that the control group members attending the conventional training program prepared by the Ministry of Education in Jordan still portrayed inabilities in writing the individualized educational program effectively, and failed to adhere to the time specified for finishing the program. The researchers also noticed that the teachers still made several mistakes in writing the behavioral objectives and in selecting appropriate instructional methodologies.

4.6.4 Post-treatment - Second Domain: Evaluation

After conducting the training program module, the researcher and his assistants reviewed the members' files and noticed that the members of the experimental group had prepared special records for learners' behaviors in the resource room. They also noticed that the teachers were capable of administering formative and summative tests. In addition, they were able to put forward remedial plans in light of the feedback given. The emphasis was mainly on the affective domain in addition to the academic domain. However, the members of the control group did not have records for learners' behaviors in the resource room. There was no variety in the evaluation strategies; the formative and the summative tests. The teachers were incapable of interpreting the results of the tests conducted. They were also incapable of using the feedback given to improve learners' performance.

In short, the researcher believes that the results of the interviews and classroom observations methods have supported the quantitative data obtained from the achievement test and the classroom observation checklist scale.

Chapter Five

Discussions, Recommendations, Conclusions

5.1 Introduction

The process of improving the educational services for children with learning disabilities in the resource room requires planning and conducting in-service training programs that develop and improve the skills and the competencies of resource rooms' teachers. In order to achieve these, in-service training programs must depend on the actual and on the objective assessment of the training needs of the teachers. When training relates to the actual needs of the trainees, it becomes more effective. In-service training programs have become an important factor in preparing special education teachers; however, there are no studies conducted in Jordan about measuring the effect of t in-service training programs and the achievement of their objectives.

Thus, this study aims at constructing and measuring the effects of a training program based on instructional competencies for special education resource room teachers in Jordan. The study further investigated the effects of the training program in improving the knowledge, the performance, and the personal and professional competencies. The followings were done: (a) the knowledge competencies were measured through an achievement test, (b) the performance competencies were measured through the classroom observation scale, and (c)

the personal and professional competencies were evaluated through the interviews, and classroom observations.

This study used both quantitative and qualitative methods in order to produce the results of the study; (i) The quantitative data include the results of the pre-post achievement tests, pre-post classroom observation checklist, and (ii) the qualitative data which include the results of pre-post interviews, and document analysis through classroom observations.

The sample of the study consisted of (50) teachers working in the resource room in schools within Irbid governorate. The sample was chosen through a stratified random sampling method, and then was divided into two groups. The first group consists of (25) teachers and the second group also consisted of (25) teachers. Furthermore, one group was randomly chosen to be the experimental and the other as the control group.

The independent variables are: (i) the training program module based on instructional competencies, which include four training domains, namely planning, instructional and classroom management, evaluation, and personal and professional competencies, and (ii) the conventional training program which was adopted by Jordanian Ministry of Education. The dependent variables are the level of knowledge and the performance of the resource room teachers. The moderating

variables involved four categorical moderating variables which are: gender, qualification, specialization, and teaching experience.

The data was collected during the second semester of the academic year 2006/2007. The participants from the experimental and the control groups were requested to take the achievement test, to be observed in their classroom observation, and to be interviewed. Then, the experimental group was enrolled into the training program module for five-weeks; whereas the control group was exposed into the conventional training program for the same period. After the intervention treatment, the experimental and the control groups were again, as the post treatment measures, requested to take the post-achievement test, to be observed in their classroom, and to be interviewed.

The present chapter is organized in five different sections. The first section focuses on the discussion of the results related to the research questions. The second section includes overall summary of the findings. The third section summarizes the recommendations of the present study. The fourth section proposes implications for futures research, and finally, the fifth section includes the conclusions.

5.2 Discussion of the Results

The following sections include the discussion of the findings according to the kinds of competencies developed by the resource room teachers as the results of the training program.

5.2.1 The effect of the training program in improving knowledge competencies

To investigate the effect of the training program on improving the knowledge competencies of resource room teachers, an achievement test was developed. It was a multiple-choice test consisting of 50 questions. The achievement test was conducted as a pretest and posttest to the control and the experimental groups.

The analysis of the data in table 4.4 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 experimental group teachers who were attached to the training program module. These differences are attributed to the effect of the training program. The results might also be attributed to the fact that the training program had included activities and experiences that provided the teachers with the appropriate opportunities to develop their level of knowledge. In addition, the training program's content and structure were designed and developed in a progressive way and up to certain standards. Furthermore, the discussions and debates between the teachers (trainees) and the researcher (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 objectives of the training program were clear and appropriate for the content and the activities and were according to the needs and attitudes of the trainees. The training programs have 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 researcher's 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.

Finally, the results of this study support the findings of other studies that adopted similar training programs. Some of these studies were conducted by Al-Ajloni (2006), Khrais (2005), Hoogveld, et al. (2005), Moraise et al. (2005), Patel and Khamis (2005), Al-Sayyed (2005), and Shoeter (2005).

5.2.2 The effect of the training program in improving performance competencies

To determine the effect of the training program in improving the performance competencies for resource room teachers, classroom observation scale was developed. It was the five-point Likert Scale that consists of 40 items. The scale

represented the level of practice by the observed resource room teachers on a particular item/competency. The classroom observation scale was conducted as a pretest and posttest for the control and the experimental group's members.

The analysis of the data in table 4.6 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 performance of the instructional competencies on the post-observation scale. The differences are in favor of the experimental group which has been exposed to the training program. Thus, these differences are ascribed to the effect of the training program.

The post-observation checklist shows that the achievement of teachers of the experimental group was better than that of the control group on the performance competencies. These results may be attributed to the effects of the training program since it included educational content and various instructional approaches and aids that enabled all the teachers to receive training according to their own needs and pace under the supervision of the trainer. The training program also provided the teacher trainees with the chance to relate the theoretical aspects with the practical fields through experimental practices and activities. In addition, the training program provided the teacher trainees with the chance to evaluate their own performance through formative and summative evaluation activities. Bloom, cited in Alfatlawi (2003), explains that the proper use of end of unit formative test is

an assurance to verify the performance of each group regarding the behavioral tasks prior to the beginning of the other tasks.

The superior performance of the experimental group members on the performance competencies may also be attributed to the fact that the training program included performance motivational patterns that require participants to watch numerous live patterns via videotapes or what is known as micro-teaching classes. These micro-teaching patterns were also used in the teacher trainee pre-service and in-service training program. This method is a new method to provide training on the instructional skills. The instructional task is minimized to specific skills the trainees perform. Micro-teaching was used in the competency based teacher training programs.

According to Edwards (1975) one of the important instructional objectives in many P/CBTE programs is that of improving basic technical teaching skills in simulated or imitation situations called micro-teaching. Furthermore, one of the biggest problems facing those who train teachers is the sheer complexity of teaching in a busy classroom. The purpose of micro-teaching in its many forms is to reduce this complexity so that the newcomer has the opportunity to concentrate on one particular aspect or skill at a time (Wragg, 1999).

More freedom has been provided for the teacher trainees by watching and re-watching what they might need in order to investigate the best methodologies used in teaching learners with learning disabilities in the resource room. The teacher trainees were then asked to simulate and model these methodologies in the resource room. This is actually what the training program has provided in its four training domains which included activities, exercises, and explanatory examples in order to motivate the continuous reading, follow the examples, watch the videotapes of the patterns, and follow the steps the in representing the verbal movements. This helped the application of various behavioral patterns that lead to the acquisition of the performance competencies on the experimental group part.

Furthermore, the trainer allows the teachers who might fail at the formative evaluation and the posttests which were given to them during the presentation of the training units to a chance to review and re-practice the training units on their own.

Bandura (1997) examined how people learn through the process of observational learning; (also called modeling). According to Bandura, much of what humans learn occurs through a process of observing and imitating others (Seng et al, 2003). Bandura considers modeling or observational learning a powerful means of transmitting values, attitudes, and even patterns of behavior. At the same time, he stresses that modeling conceptualized as simple imitation has limited the scope of research, as observers were tested for precise re-production of the modeled

behavior. In the social cognitive learning theory, modeling influences have a wider psychological effect, as observers acquire cognitive skills and new patterns of behavior by observing other (Berry & Loughran, 2005; Hartjen, 1974).

Bandura (1997) concluded that humans learn to imitate by beings reinforced for specific acts of imitation. Classical associations and operant are considered to be crucial factors affecting the teaching / learning process. Bandura also feel that one must also consider the intervening conditions of the organism or internal conditions. His work is often referred to when a society questions whether children learn via television viewing (Elliott et al, 2000; Calmels & Hars, 2006).

According to Bandura (1997), the social cognitive learning results from the interactions among behavior, environmental variables, cognitive processing, and personal factors. These factors, especially the environments (in the form of modeling or the feedback we get from others), influence our feeling of competency on a particular task or skill. Such feelings of competency, called self-efficacy, develop from information conveyed by four sources :(i) enactive mastery experience. We acquire personal and effective information from what we do; we learn from firsthand experience and from how successful we are in mastering our environments; (ii) vicarious experience. Watching “similar other” perform, we persuade ourselves that we can probably do that action; (iii) verbal persuasion. Persuasion can lead our students to believe that they can overcome their difficulties and improve their performance; and (iv) physiological and affective

states. Stressful situations constitute a source of personal information. If we project an image of ourselves as fearful in certain situations, then we just enhance the possibility of that particular behavior.

The training program also included instructional situations represented in instructional activities and exercises after each behavioral and instructional task. As a result, this has an important role on transferring the effect of training from the training situation to the actual instructional situations inside the resource room. Tooq, cited in Alfatlawi (2003) indicated that it is necessary for the teacher trainees to apply all they have learned in the actual instructional situations.

The formative and the final tests each training unit of the training program included led to minimizing anxiety on the trainees' part and increased their self-confidence. It also helped them acquire competencies and move away from hesitation in the resource room. This was clear on the classroom observation scale checklist when they were observed in the resource room.

The feedback that accompanied the training program module also played an important role in reinforcing the correct answers when the trainer observed the teacher trainees in actual instructional situations, in addition to the formative and the final tests. Nichol, cited in Alfatlawi (2003) discovered, in a study aimed at balancing between five resources of feedback; that the best of which was the one

that depended on observation. Observation is also considered one of the important methodologies that made positive change in the behavior of the teacher trainees.

The re-training process that was done as a remedial procedure for some of the teacher trainees who failed the tests available at the end of each training unit led to guiding those teachers to improve their performance and overcome the difficulties they encounter performing the competencies. Alfatlawi (2003) indicates that correcting the mistakes and overcoming the obstacles may lead to mastery in performance in various instructional products.

The display of the training units on PowerPoint reinforced observation accuracy, debate, and inference, which led in turn to increasing the effects of the training program. The teacher trainees transferred what they have learned from simulated situations to actual instructional situations in the resource room. Bandura (1997) indicates that what the teacher knows usually defines what he/she can perform.

Bandura (1997) emphasizes the importance of observational learning and modeling other by stating:

Learning would be exceedingly laborious, not mention hazardous, if people had to rely solely on the effects of their own actions to inform them of what to do. Fortunately, most human behavior is learned observationally through modeling: from observing others, one forms and idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action (Bahn, 2001, p111)

The results of this study also support the results of other studies that adopted teacher-training programs. Some of these studies are Al-Ajlani (2006), Khrais (2005), Hoogveld et al., (2005), Moraise et al., (2005), Patel and Khamis (2005), Al-Sayyed (2005), and Shoemaker (2005).

5.2.3 The relationship between knowledge and performance competencies and moderating variables

The analysis of the data in tables (4.8, 4.10, 4.12, and 4.14) showed that there are no statistically significant differences at $p < .05$ between the means of the knowledge and the performance of the teachers at the post-achievement test and the post-observation of the control and the experimental group attributed to variables gender, specialization, qualification, and teaching experience. This indicates that the sample members are homogeneous in knowledge and performance and in their needs to develop their knowledge and instructional competencies. The following is an explanation to the variables of the study:

The fact that there are no statistically significant differences at $p < .05$ in the means of the teachers knowledge and performance attributed to gender, specialization, and qualification might be attributed to the fact that all male and female teachers are influenced by the same variables. They are 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 are subjected to the same pre-service and in-service training programs regardless of the variables of gender, specialization, or qualification. 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 variables of gender, specialization, qualification, or even teaching experience.

The fact there are no statistically significant differences at $p < .05$ in the means of the teachers' knowledge and performance attributed to teaching experience might be attributed to the similarity between the teachers willing to acquire the knowledge and instructional competencies and the teachers with various teaching experiences. It might also be attributed to the fact that all the teachers, regardless of their experience, have attended the same preparation programs and the training courses on the basic instructional skills provided by the Jordanian Ministry of Education. All these helps provide the same educational programs to all teachers regardless of their gender, specialization, qualification, and teaching experience.

The results of the study are compatible to other studies such as Khrais (2005), Al-Sayyed (2005), Shoeater (2005), Hadidi (2003), Al-Qethami (2001), Khuzai (2001), Hadidi (1993) Hadidi (1991), Hadidi (1990), Al-Mater (2004), and Wigle and Wilcox (2002).

5.2.4 The effect of the training program in improving personal and professional competencies (Qualitative data discussions)

Training programs are usually more effective when they are directly related to the needs of in-service trainees. This is what this study has been trying to achieve by directly going to the teachers themselves through interviews and classroom observations aiming at analyzing their in-service needs. This study aimed at investigating the training needs of the in-service teachers by conducting interviews and classroom observations with resource room teachers. The interviews and classroom observations aimed at evaluating the instructional competencies that are not measured by the achievement tests and the classroom observation scale checklist.

In order to determine the in-service training needs for resource room teachers that were not measured by the achievement test and the classroom observation scale, the qualitative data were used in this study as pre and post-interviews with the control and the experimental groups. The interview protocol contains (10) questions which evaluate the fourth domain of the training program which are

connected to the personal and professional competencies. However, the results of the pre-interviews showed that the control and the experimental groups feel that they need training on the areas asked by the interviewers. They expressed their needs for training on areas related to cooperative learning, cooperation with the parents, and educational research. These three areas were included in the training program under the name of the personal and the professional competencies.

The post-interviews generally indicated that a large percentage of the teachers in the experimental group indicated that the training program module benefited them and improved their performance in providing educational services to students with learning disabilities in the resource room. Regarding the philosophy of the training program, a large percentage of the teachers in the experimental group indicated that the training program is vital for in-service training teachers and that the method of the workshops held helped the teachers to acquire new information and new skills. Ysseldyke and Algozine (1982) indicated that in-service training programs are important methodologies used to develop and improve teachers' skills in order to enhance their instructional competencies and provide them with the latest about educational developments.

On the other hand, the post-interviews with the experimental group also showed that there is a great improvement regarding the teachers' responses regarding the importance of developing cooperative spirit among learners using cooperative learning, cooperation with parents, and conducting educational research. The

teachers stressed the importance of cooperative learning in teaching learners with learning disabilities. The training program provided them with a general idea about using cooperative learning as an instructional strategy depending on peer-teaching. The teachers used peer teaching in the resource room. They brought a certain student with special skills in teaching from a certain classroom to help teaching learners with learning disabilities. This method proved to be effective with learners with learning disabilities in the resource room.

This change of attitudes of the experimental group teachers toward cooperative learning as a method for teaching children with learning disabilities can be attributed to the content of the training program. The training program module contained various techniques, activities and aids that stressed the effectiveness of the use of cooperative learning as a strategy for teaching children with learning disabilities. Furthermore, the training program module included live and practicum instructional models about using cooperative learning for teaching children with learning disabilities. The program also included several videotape presentations focusing on cooperative learning.

It was also noticed that the members of the experimental group realized the importance of cooperation with the parents regarding their children in the resource room. Parents are considered as an important factor when planning the individualized educational program. The teachers also realized the importance of role the parents play in instilling self-confidence in their children in the resource

room. The teachers also stressed the importance of holding Parent-Teacher meetings which represent an opportunity for the parents to meet the teachers in the resource rooms to discuss the status quo of their children. They also play an important role in designing the individualized educational program for their children.

This change of the teachers' attitudes towards cooperation with the parents can be attributed to the fact that the teachers realized the importance of the effective cooperation with the parents. Parents are vital participants in designing the individualized educational program of their children. This change can also be attributed to the training program that provided the teachers with a general idea about the importance of cooperation with the parents and the importance of holding Parents-Teacher meetings. These cooperation and meetings help the parents to accept the responsibility towards their children with learning disabilities.

The field trip that the trainees did to the Educational Research Journal office, of the Yarmouk University, Jordan, had an important effect on encouraging the trainees and elevating their motivation to conduct educational research in the field of special education. During the trip, the teachers observed the stages of preparing the journal.

Cooper and Hunt, cited in Hadidi (1991) pointed out that one of the main problems of in-service training programs is that the teachers, whom these training programs

are meant for, rarely receive training needs analysis. Effective training provides the teachers with the opportunity to choose the objectives and the activities for themselves. Special education teachers' needs for in-service training differ depending on several factors, such as kind of disability, the variety of roles the teachers are to perform, the constant changes in the field of educational technology, the difference in pre-service teacher preparation, and the focus on individualized training methodologies. Therefore, training needs analysis is one of the most important factors for the success of in-service training programs and increasing their effectiveness (Hadidi, 1990).

The analysis of the qualitative data concurs with the results of Sayyed (2005), which used similar instrument to investigate the training needs of the vocational education teachers in Jordan. The results of this study revealed that the personal interviews with the new teachers are important to identify the educational needs. The study also indicated that there are various training needs the vocational education teachers need to attend while being in-service. Finally, the results of this study also agree with the recommendations of Hadidi (1990; 1991; 1993) regarding the importance of identifying the training needs of special education teachers using the method of personal interviews and observing them in the resource room.

5.3 Overall Summary of the Findings

The discussions of the qualitative and the quantitative results revealed the importance of in-service training programs, especially those that adopt the workshop method aiming at enhancing the performance of the teachers and improving their educational proficiency in order to help them acquire the skills and the knowledge plus keeping them informed about the latest in the educational field. It was also found that there are significant effects of the training program module based on instructional competencies in improving the knowledge, performance, professional, and personal competencies of the experimental group teachers regardless of the moderating variables. These effects can be attributed to content of the training program module. It included instructional experiments, activities, and instructional skills, which helped provide the teachers with the appropriate instructional competencies to develop their knowledge and performance. Furthermore, the training teachers programs based on CBTE play an important role in upgrading skills, knowledge, and performance of teachers to be more effective. Moreover, it was mentioned in the conceptual framework of this study. Also the research framework in this study indicated that in-service training programs have improved the competencies and skills for special education teachers, the training program was presented through workshop which used module method.

The training program module was adapted and organized in a way that is according to define criteria in term of the content and structure. In addition to the

instructional and the evaluation activities, the discussion sessions among the teachers themselves and between the teachers and the trainer had a great impact on increasing interaction between the trainees and the training program. It also enhanced the teachers' knowledge of instructional methodologies and developed various instructional competencies. The display of the live models and learning by observation had effective effect on improving the instructional competencies of the teachers. The training program included video, demonstrations; data show presentations, and practicum observations by personal visits to resource rooms.

5.4 Recommendations

In the light of the results of the study, the searcher recommends the following:

(i) Training programs, supervision, and Qualification Department of the Ministry of Education, and other teacher training institutions in special education colleges and universities should use the list of the competencies this study adapted and reached in designing and building training programs for special education teachers. The researcher also recommends using the list of the instructional competencies reached by this study to design in-service training programs by the Department of Training, Supervision, and Rehabilitation in the Ministry of Education. This list included three domains of instructional competencies considered some of the most important instructional competencies teachers need in the resource rooms.

Therefore, it is vital that the Ministry of Education in Jordan adopts the list of the competencies and designs other in-service training programs for special education teachers in general and teachers of learning disabilities, in particular. The existing in-service training programs the teachers of special education attend are too general, and the teachers attended them without taking into consideration the specialization, or the class teachers are teaching, and whether they are regular learners or learners with learning disabilities. These training programs are generally held in the form of workshops and do not include specialized training programs in the field of special education.

The researcher also recommends that Faculties of Education in the Public and Private Universities and teacher preparation institutions adopt the list of competencies and focus on practicum training since it has a great effect on providing the teachers and the students with realistic instructional competencies, and the performance competencies in order to be able to deal with the learners with learning disabilities in the classroom.

(ii) The classroom observation checklist scale should be adopted as an evaluation tool for the special education for teachers working in special education schools and resource room in Jordan. The researcher believes that by adopting the class observation checklist, for example by the administrators of the educational supervision in the Ministry of Education, it would be possible to identify the skills of the special education teacher in term of the competencies of planning for

instruction, classroom management and evaluation. The class observation checklist gives an accurate indicator for the administrators of the in-service training programs about the needs of special education teachers for in-service training programs.

(iii) Universities in Jordan are recommended to use such training program to help designing pre-service teacher training programs. Pre-service training programs usually focus on the theoretical sides more than the practical sides or the teaching process. Special education teachers are given courses called practicum; however, these courses are not sufficient and do not give the teacher trainees usable performance skills in the classroom. Special education teachers need pre-service training programs where they receive both behavioral and educational skills to deal with learners with learning disabilities.

(iv) It is recommended that more similar studies be conducted on other samples in the remaining directorates of education in Jordan in order to identify the training needs in a more comprehensive way for all the teachers of the resource rooms. It is also recommended that other studies be conducted on special education teachers who teach children with mental retardation, hearing and visual impairment, in addition to identifying the training needs for teacher who deal with gifted and talented learners attending the Jubilee School, Schools of King Abdullah II for Excellence, Pioneering Centers, and resource rooms for gifted and talented students.

(v) The Jordanian Ministry of Education is invited to make use of the training program in training in-service special education teachers. The Ministry of Education can make use of this program to design and prepare in-service training programs for special education teachers. This training program included a large array of aids, methodologies and activities and it also stems from the training and the instructional needs of special education teachers. Therefore, it is recommended that the Ministry of Education adopt the training program and designs other training programs for special education teachers. Special education teachers should be trained on the instructional competencies included in the training program.

(vi) The Ministry of Education could also benefit from the achievement test to identify the knowledge competencies of special education teachers. It is suggested that the supervision department and the supervisors who conduct field visits to special education teachers adopt the interview protocol to identify the training needs of the in-service special education teachers. The interviews protocol sheds light on the real training needs for in-service special education teachers, since these training programs stem from the real needs and teacher may be affected by them more than those training programs offered by the Ministry of Education. It is also noticed that training programs given to teachers include contents adopted from other sources, such as Britain, or the USA. The content of these programs differ form what is actually needed in other actual instructional situations;

consequently, training programs should be compatible with our realistic educational situation and concur with our education, social and cultural reality.

(vii) Teachers preparing programs at the Faculties of Education at the Jordanian Universities should include courses that explain the importance of the instructional competencies, their resources, and the way to use them. The Competencies Based-Teacher Education Program aims at identifying the performance objectives for teachers during pre-service training. The objectives should be on the form of behavioral objectives. In addition, pre-service teacher education program based on competencies should include identifying the skills, knowledge, and teacher qualities and personal competencies, which is directly related to teacher performance and success. It also identifies the evaluation criteria in light of which training will be judged whether achieving the desirable objectives. Thus developing a functional system to perform the instruction and training is needed.

Pre-service training is effective when based on a clear philosophy and intended to achieve clear objectives. It also employs organized and objective evaluation in order to identify weak points in teacher education in order to overcome such weaknesses. It is recommended that one could use the model suggested by Blackhurst (1985) to develop pre-service training programs for special education teachers, since this model includes employing numerous methodologies to develop training programs. These methodologies are tested in accordance with evaluating trainees' needs in seven steps, as follows: 1. adopting a clear philosophy by the

teacher trainees regarding learners with special needs; 2. identifying the roles and the duties of the teacher trainees; 3. specifying competency needs including assessing learner behavior, designing and implementation instructional programs, selecting and using instructional materials, managing the learning environment, and working effectively with parents; 4. developing objectives, where objectives are specified depending on the teachers' experience, efficiency, in addition to the nature of the difficulties the children suffer from. In other words, through this step, emphasis is placed on the methodologies the teacher needs training on; 5. identifying content and source, where the teacher specifies the methodologies that enable him/her to achieve the desirable objectives through communication with those working in the field of special education, the international and local institutions that deal with learners with learning disabilities; 6. implementing a professional and development program which depends on the objectives and personal circumstances and will, as a result, be highly subjective; 7. evaluating, revising, and refining the program which should be flexible. This means that the program must continually evaluate teachers' activities, plans and modifications when necessary.

(viii) The MOE should design in-service workshops for special education teachers in Jordan. The researcher recommends the MOE to hold more workshops for in-service teachers of special education in Jordan. In-service training programs have become indispensable factors for special education teachers all over the world. Consequently, the MOE of education is to hold more workshops and benefit from

this training program in designing training programs for teachers working with learners with learning disabilities. The MOE should take into consideration when designing these programs the kind of difficulties the teachers are dealing with. The MOE of Education specialize training programs for teachers dealing with learners with hearing and visual impairment, and mental retardation in addition to teachers dealing with gifted and talented learners.

5.5 Implications for Future Research

The aforementioned findings of this study may provide opportunities for future research according to the following:

First: This study emphasized the definition of the competencies necessary for teachers of the resource rooms, and then moved to designing the Instructional Competency- Based Training Program. The effect of the training program in Jordan was then measured. In fact, there are still a need for further research to investigate the instructional competencies necessary for special education teachers, teaching in the fields of mental retardation, visual and hearing impairments, in addition to teachers working with the gifted and the talented learners. Such studies help develop teacher education in the pre-service and the in-service periods. These studies provide us with a comprehensive image about the instructional competencies that must be included in the pre-service teacher training programs. Future studies must pay attention to whether the instructional competencies

necessary for special education teachers differ according to the level of difficulty, the number of learners, and age in the resource room.

Second: It is worth mentioning here that the instructional competencies necessary for teachers of the resource rooms were defined in accordance with the results of the pilot study, and the training program was designed depending on the instructional competencies the sample members performed low or medium on, based on the achievement test, interviews, and the classroom observation checklist scale. In other words, future studies should ask the teachers, themselves, to define the instructional competencies necessary for teaching learners with learning disabilities, and then design the training program depending on their real training needs. Some teachers suggested defining the objectives the training program should achieve by observing the change of behavior the teachers develop in the resource room. For example, Snell, Thompson, and Taylor, cited in Hadidi (1991) suggested active response in-service training model which requires the teachers to define the skills and the instructional competencies they think they need, and the educators conduct field visits to the resource rooms to observe the performance of the teachers in the resource rooms to assure that the teachers really need to acquire those skills and competencies. In addition, they will make sure that the teachers need a training program based on the instructional competencies mentioned by the teachers. This way, the educators will see if the teachers need training on other skills and competencies.

Third: Future studies should attempt to investigate the level of special education teachers, regarding instructional competencies. In addition, future studies should attempt to investigate the need for in-service training programs to help in designing periodical training programs based on the actual training needs for special education teachers.

Fourth: Future studies should be conducted in other districts of Jordan in an attempt to investigate the instructional competencies necessary for teachers of resource rooms. These studies may help reconsider the current teacher education programs for in-service teachers.

Fifth: The classroom observation scale, the achievement test, and the training program consisted of three domains of instructional competencies. These competencies included competencies of planning, instruction and classroom management, and evaluation. Consequently, future studies should include other instructional competencies. It is possible to benefit from the National Joint committee on Learning Disabilities, 1998. Furthermore, we can benefit from the list of competencies prepared by the Division for Learning Disabilities (DLD) and the Council for Exceptional Children (CEC) (Al-Khateeb, 2004). Future studies should cover the aforementioned competencies; thus, providing the opportunity for special education teachers to receive training on all the necessary instructional competencies, and helping the teachers acquire new instructional competencies

they can use in the classroom. Moreover, these training programs ought to be continues as the training needs are not static but evolving and developing.

Sixth: This study has investigated two kinds of competencies; knowledge competencies and performance competencies. The achievement test, the classroom observation checklist scale, interviews, and the training program have been designed based on those kinds of competencies. Therefore, future studies should investigate other kinds of competencies, such as consequence, affective, and explanatory competencies. The mentioned competencies have been briefly discussed in the conceptual framework. As a result, future studies should design appropriate measuring instruments to measure these competencies, since teachers need not only knowledge and performance competencies, but also all the instructional competencies.

Seventh: The findings of the study revealed that the training program module had upgraded, enhanced, and improved the knowledge, performance, and personal and professional competencies for the teachers of the experimental groups more than the conventional training program did to the teachers of the control group. In addition, the superior performance of the experimental group teachers on the performance competencies attributed to the fact the training program module had included activities, experiences, various techniques that provided the teachers with appropriate opportunities as to develop their level of knowledge and performance. Thus, the Jordanian Ministry of Education should focus on the training programs

and design particular in-service training program for special education teachers. Moreover, future studies should give different courses offered by seminar and short-term courses for special education teachers.

Eight: The theoretical framework of this study depended on the social cognitive learning theory. The social learning theory is based on observational learning or modeling, and cognitive behavior modification. Consequently, future studies aiming at designing training programs should use other learning theories, such as the Cognitive Learning and Constructivism, which was used by Mathekga (2004), Hoogvel (2005), and Neves, Morais, and Afonso (2004).

5.6 Conclusions

The main purposes of this study were to construct and measure the effects of a training program module in improving instructional competencies. This study found that the training program module had improved the knowledge, the performance, and the personal and the professional competencies of resource room teachers through using quantitative and qualitative methods. The training program 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 Mathekga (2004), 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 workshops 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 improve the skills of reading, writing and arithmetic. Consequently, attention must be paid to in-service training programs since they benefit both the teachers and the learners.

Finally, it can be concluded that the training program the researcher has 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).

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LIST OF APPENDICES

- Appendix 1**
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Appendix (1)

List of instructional competencies for resource room teachers in Jordan

Professor..... Date:.....

The researcher is conducting a study titled "Constructing a Training program based on instructional competencies for resource room teachers in Jordan and Measuring its Effect on Improving These Competencies" in fulfillment of the requirements of the PhD Degree in Special Education at the University of Science Malaysia.

Dear referee.....

Kindly review this classroom observation scale which the researcher prepared. It consists of 100 items distributed among the following competencies: planning, instruction and Classroom management and evaluation. This scale will be used for the purpose of evaluating the performance of resource room teachers regarding the instructional competencies. Kindly provide the researcher with your enlightened opinion regarding this tool through the following:

- The tool appropriateness for the purposes of the study
- Language formation.
- The relevance of the paragraphs for the field listed under.
- Suggestions.

Thanking you in advance for your cooperation

Researcher

Suhail Mahmoud Al Doubi

(1) Suitable, (2) Not suitable, (3) Relevant, (4) Irrelevant

N	Planning Competencies	1	2	3	4
<input type="checkbox"/>	Teachers' objectives are compatible to the philosophy of the Ministry of Education				
<input type="checkbox"/>	Measures the current level of the learners				
<input type="checkbox"/>	Prepares the individual educational plan for each learner in the resource room				
<input type="checkbox"/>	Prepares the individual instructional plan for each learner in the resource room				
<input type="checkbox"/>	Specifies the elements of the individualized educational plan				
<input type="checkbox"/>	Specifies the elements of the individualized instructional plan				
<input type="checkbox"/>	Determines the learners' needs in light of their developmental characteristics				
<input type="checkbox"/>	Takes into considerations the level of the cognitive, affective and psychomotor of the learners.				
<input type="checkbox"/>	Designs the instructional objectives in measurable behavioral way.				
<input type="checkbox"/>	Selects the activities suitable for learners' abilities.				
<input type="checkbox"/>	Determines the appropriate evaluation tools for learning.				
<input type="checkbox"/>	Determines the teaching-learning strategies for the theoretical and empirical sides				
<input type="checkbox"/>	Observes the time limit specified for conducting the individualized educational plan				
<input type="checkbox"/>	Determines the procedures and the steps of conducting the classroom situations				
<input type="checkbox"/>	Maintains the continuation of planning for each instructional situation conducted				
<input type="checkbox"/>	Determines the appropriate content for learners				

<input type="checkbox"/>	Analyzes the educational objective into sub instructional objectives by task analysis method				
<input type="checkbox"/>	Determines the instructional methodologies for learners with learning difficulties				
N	Instruction and Classroom Management Competencies	1	2	3	4
<input type="checkbox"/>	Uses the appropriate instructional methodologies for learners with learning disabilities				
<input type="checkbox"/>	Motivates the learners and instigates their interests towards learning				
<input type="checkbox"/>	Prepares instructional materials and aids necessary for instruction				
<input type="checkbox"/>	Employs the verbal and non-verbal skills in the resource room				
<input type="checkbox"/>	Uses computers and the internet in instruction				
<input type="checkbox"/>	Employs methodologies appropriate for a particular situation				
<input type="checkbox"/>	Establishes friendly relations with the learners				
<input type="checkbox"/>	Takes into consideration recency and flexibility in instructional aids used for a particular situation				
<input type="checkbox"/>	Observes the individual differences among the learners in light of their abilities and needs				
<input type="checkbox"/>	Activates students' participation in the learning situations				
<input type="checkbox"/>	Reinforces learners' correct answers and corrects wrong answers when occurring				
<input type="checkbox"/>	Conducts more than one activities at the same time during instruction				
<input type="checkbox"/>	Minimizes explanations and increases application of the lessons				
<input type="checkbox"/>	Provides the opportunity for the learners to practice the skills in groups or individually				
<input type="checkbox"/>	Helps learners acquire self-learning skills				
<input type="checkbox"/>	Establishes appropriate classroom environment for learners				
<input type="checkbox"/>	Organizes class time and uses it effectively				

<input type="checkbox"/>	Promotes spirit of cooperation amongst learners in the resource room				
<input type="checkbox"/>	Uses appropriate language in the resource room				
<input type="checkbox"/>	Supervises the learners during practical training				
<input type="checkbox"/>	Takes into consideration the attitudes and needs of the learners				
<input type="checkbox"/>	Prepares educational content that helps learners acquire knowledge				
<input type="checkbox"/>	Motivates learners in the resource room				
<input type="checkbox"/>	Utilizes instructional strategies compatible with those of the learners'				
<input type="checkbox"/>	Moves from simple to more complex in instruction				
<input type="checkbox"/>	Cooperates with the parents regarding their children				
N	Evaluation Competencies	1	2	3	4
<input type="checkbox"/>	Observes learners' behavior and keeps it in a special record				
<input type="checkbox"/>	Relates learners' evaluation to the theoretical and empirical objectives of the lessons				
<input type="checkbox"/>	Uses various evaluation methods (pre-evaluation, formative and summative)				
<input type="checkbox"/>	Uses various evaluation methods (Oral, Written and observation)				
<input type="checkbox"/>	Designs questions that deal with the various levels of learners				
<input type="checkbox"/>	Uses feedback to improve learners' level				
<input type="checkbox"/>	Has the ability to interpret the tests given to the learners				
<input type="checkbox"/>	Analyzes learners' results and uses them to solve their problems				
<input type="checkbox"/>	Sets the remedial plans in light of feedback from tests				
<input type="checkbox"/>	Designs questions that consider all faces of learning (affective, cognitive and psychomotor)				
<input type="checkbox"/>	Takes into consideration the concept of continuous evaluation				
<input type="checkbox"/>	Has the ability to evaluate the social and emotional behavior of the learners				

<input type="checkbox"/>	Prepares questions that cover the curriculum				
<input type="checkbox"/>	Relates the evaluation methods to the objectives and the educational content				
<input type="checkbox"/>	Has the ability to prepare a checklist for the scholastic tests				
<input type="checkbox"/>	Uses both standardized and non-standardized evaluation tools				
<input type="checkbox"/>	Prepares questions that takes into consideration the various levels of the learners				

Appendix (2)

The Final version of Classroom Observation Checklist

Classroom observation scale for evaluating the performance competencies of resource room teachers.

Details of each Card:

Teachers name.....

School:

Educational Directorate for theDistrict.

Gender: male female

Qualification: A Post graduate Diploma more

Academic Specialization: Special Education others

Teaching Experience: Less than years more than years

Observer name:.....

Observation date:.....

Subject:.....

Special direction to using the observation scale:

- This scale is designed to observe the performance of resource room teachers in their instructional environment regarding the educational competencies related to instruction. The competencies in each domain are divided into observable and measurable competencies.
- This scale shall be used from the beginning to the end of the class.

- This scale includes for sequential degrees to evaluate performance from 1 – 5. The observer should assign 5 under the degree 1 in case the performance is very high 4 for Moderate 3 for average 2 for Moderate Low and 1 for very low performance.

N	Planning Competencies	1	2	3	4	5
□	Teachers' objectives are compatible to the philosophy of the Ministry of Education					
□	Measures the current level of the learners					
□	Prepares the individual educational plan for each learner in the resource room					
□	Prepares the individual instructional plan for each learner in the resource room					
□	Specifies the elements of the individualized educational plan					
□	Specifies the elements of the individualized instructional plan					
□	Determines the learners' needs in light of their developmental characteristics					
□	Takes into considerations the level of the cognitive, affective and psychomotor of the learners.					
□	Designs the instructional objectives in measurable behavioral way					
□□	Determines the appropriate evaluation tools for objectives					
□□	Determines the procedures and the steps of conducting the classroom situations					
□□	Maintains the continuation of planning for each instructional situation conducted					

<input type="checkbox"/>	Analyzes the educational objective into sub-instructional objectives by task analysis method					
<input type="checkbox"/>	Determines the instructional methodologies for learners with learning disabilities.					
N	Instruction & Classroom Management Competencies	1	2	3	4	5
<input type="checkbox"/>	Uses the appropriate instructional methodologies for learners with learning disabilities					
<input type="checkbox"/>	Motivates the learners and instigates their interests towards learning					
<input type="checkbox"/>	Prepares instructional materials and aids necessary for instruction					
<input type="checkbox"/>	Employs the verbal and non-verbal skills in the resource room					
<input type="checkbox"/>	Uses computers and the internet in instruction					
<input type="checkbox"/>	Employs methodologies appropriate for a particular situation					
<input type="checkbox"/>	Establishes friendly relations with the learners					
<input type="checkbox"/>	Takes into considerations recency and flexibility in instructional aids used for a particular situation					
<input type="checkbox"/>	Observes the individual differences among the learners in light of their abilities and needs					
<input type="checkbox"/>	Activates students' participation in the learning situations					
<input type="checkbox"/>	Provides the opportunity for the learners to practice the skills in groups or individually					
<input type="checkbox"/>	Helps learners acquire self-learning skills					
<input type="checkbox"/>	Establishes appropriate classroom environment for learners					
<input type="checkbox"/>	Utilizes instructional strategies compatible with those of the learners'					

N	Evaluation Competencies	1	2	3	4	5
<input type="checkbox"/>	Observes learners' behavior and keeps it in a special record					
<input type="checkbox"/>	Relates learners' evaluation to the theoretical and empirical objectives of the lessons					
<input type="checkbox"/>	Uses various evaluation methods <input type="checkbox"/> pre evaluation <input type="checkbox"/> formative and summative <input type="checkbox"/>					
<input type="checkbox"/>	Uses various evaluation methods <input type="checkbox"/> Oral <input type="checkbox"/> Written <input type="checkbox"/> and observation <input type="checkbox"/>					
<input type="checkbox"/>	Designs <input type="checkbox"/> uestions that deal with the various levels of learners					
<input type="checkbox"/>	Uses feedback to improve learners' level					
<input type="checkbox"/>	<input type="checkbox"/> as the ability to interpret the tests given to the learners					
<input type="checkbox"/>	Analyzes learners' results and uses them to solve their problems					
<input type="checkbox"/>	Sets the remedial plans in light of feedback from tests					
<input type="checkbox"/>	Designs <input type="checkbox"/> uestions that consider all faces of learning <input type="checkbox"/> affective <input type="checkbox"/> cognitive <input type="checkbox"/> and psychomotor					
<input type="checkbox"/>	<input type="checkbox"/> as the ability to evaluate the social and emotional behavior of the learners					
<input type="checkbox"/>	Uses both standardized and non <input type="checkbox"/> standardized evaluation tools					

Appendix (3)

Achievement test

Achievement test for evaluation knowledge competencies of resource rooms teachers.

Details of each Card:

Teachers' name.....

School:

Educational Directorate for theDistrict.

Gender: male female

Qualification: A Post graduate Diploma more

Academic Specialization: Special Education others

Teaching Experience: Less than years more than years

Date:.....

Instructions

- This test includes fifty Multiple choice questions.
- Put the symbol of the correct answer against the paragraph assigned to it on the following form:

Achievement Test

• The First Domain (Planning and Instruction Competencies)

1. The general objectives of education in Jordan stems from the philosophy of education represented in the following:
 - a. Forming a citizen believing in God.
 - b. Forming the citizen belonging to the nation and country.
 - c. Developing the personal, mental, affective, spiritual, and human sides of the citizen.
 - d. All of the above.
2. Determining the current performance level of the children with learning disabilities in uncovering the following:
 - a. Strengths.
 - b. Weaknesses
 - c. Strengths and weaknesses.
 - d. None of the above
3. The first step in determining the current performance level of the child is:
 - a. Standardized tests
 - b. Screening
 - c. Referral
 - d. Non standardized tests
4. according to Wehman (1998) format Preparing the Individualized Educational Plan is after determining:
 - a. The current performance level of the learner
 - b. The entrance behavior of the child
 - c. The final performance
 - d. All
5. The Individualized Instructional plan forms the executive side of:
 - a. The Individualized Educational Plan.
 - b. The current performance level
 - c. None of the above
 - d. The entrance behavior of the learner

6. The instructional objective is usually analyzed into a number of instructional objectives according to the method of:
 - a. Operation analysis
 - b. Difficulty analysis
 - c. Task analysis
 - d. All of the above
7. One of the following statements is **NOT** one of the components of the Individualized Educational Plan:
 - a. Instructional methods and aids
 - b. General information about the learner
 - c. The individualized instructional objectives
 - d. Members of the individualized educational plan committee
8. One of the following is **NOT** one of the components of the Individualized Instructional Plan:
 - a. General information about the learner
 - b. Subeducational objectives
 - c. The preliminary evaluation of the learner
 - d. The necessary equipment
9. The instructional method following the behavior modification method in the Individualized Instructional plan:
 - a. Preparing the learner for the instructional task.
 - b. Helping the learner to perform the task by reinforcement.
 - c. In case the learner masters the task no need for the instructor to continue
 - d. All of the above.
10. The instructor in the resource room prepares activities that suit:
 - a. The current needs of the learner
 - b. Learners' readiness and abilities.
 - c. All
 - d. Learners' readiness and abilities
11. Determining the level of objectives in the cognitive, affective, and psychomotor domains helps the following:
 - a. Selecting the appropriate instructional methods

- b. Selecting the appropriate evaluation tools.
 - c. Selecting the aids and methodologies.
 - d. All of the above.
12. All of the following statements of the criteria of forming behavioral objectives are correct **EXCEPT ONE**:
- a. The behavior expected from the instructor
 - b. Measurable and observable.
 - c. Indicate the expected behavior of the learner
 - d. Can be verified.
13. The final instructional evaluation stage aims at:
- a. Discovering the level of progress the learners achieved
 - b. Discovering the difficulties the learners faced
 - c. Transferring the unachieved objectives to the next monthly plan
 - d. All of the above.
14. The instructional strategy stipulating that one lesson can be taught to the learner in the resource room including all learner regardless of their level and personal skills is:
- a. Multi-level strategy
 - b. Problem solving strategy
 - c. Discussion strategy
 - d. Investigation strategy
15. The importance of defining the instructional content for each learner in the resource room may:
- a. Define the medium the learner is expected to exhibit behavior in.
 - b. Organizes the coverage of the instructional content.
 - c. Sheds light on the proper learning strategies.
 - d. All of the above.
16. Selecting the appropriate instructional strategy included in the lesson plan mainly depends on:
- a. The kind of behavior expected from the learner
 - b. Learners' readiness to achieve the objectives planned for.
 - c. The availability of the financial resources necessary.
 - d. All of the above.
17. **ONE** of the following statements represents a **COGNITIVE** objective:

- a. The learner should recite the alphabets.
- b. The learner should participate by donating blood.
- c. The learner should draw a natural view.
- d. The learner should appreciate the role the teacher is playing.

• **The Second Domain (Instruction and Classroom Management)**

- 18.** One of the most common used methods in teaching children with learning disabilities is:
- a. Training on operations
 - b. Task analysis
 - c. ABA.
 - d. None of the above.
- 19.** The theory that explained motivation in light of the educational theories with the behavioral inclination is:
- a. The Association theory.
 - b. The cognitive theory.
 - c. The humanistic theory.
 - d. The psychoanalysis theory.
- 20.** One of the following statements is the most effective instigating learners' motivation:
- a. Presenting the instructional material in a brief way.
 - b. Using instructional material and aids that relate the former experience to the latter.
 - c. Detailed explanation of the material.
 - d. Conducting a test.
- 21.** One of the nonverbal communication techniques is:
- a. Computers and internet.
 - b. Motion gestures.
 - c. Visual and auditory aids.
 - d. All of the above.
- 22.** One of the following strategies DOES NOT develops verbal communication:
- a. Multi-level learning.
 - b. Cooperative learning.
 - c. Mastery learning.
 - d. Programmed learning.

- 23.** Developing the performance of teachers in Special education mainly depends on:
- Using computers and the internet in the teaching learning process.
 - Using various strategies that suit all learners.
 - Designing learning activities that consider the various levels of the learners.
 - All of the above.
- 24.** When using Reading Instructional Methods with learners with learning disabilities these methods should match the learning models of:
- Auditory and tactile learning
 - Visual and motor learning.
 - Total Learning.
 - All of the above.
- 25.** The domino game is considered one of the games preferred by:
- Visual learners.
 - Tactile learners
 - Analytical learners.
 - Auditory learners.
- 26.** Developing team and cooperation spirit depends on:
- Developing individual creative abilities.
 - Establishing positive attitudes towards teamwork.
 - Observing and evaluating teamwork.
 - None of the above.
- 27.** Self-learning means:
- Managing without the teacher.
 - Managing without the classroom.
 - Developing the role of education in learning.
 - Changing the role of the teacher from spoon feeder to facilitator and organizer.
- 28.** One of the methods that activate the role of the learner in the learning situation is:
- Adapting the curriculum activities to suit the learners in the resource room.
 - Adapting classroom activities.

- c. Preparing daily plans and lessons.
 - d. All of the above.
- 29.** One of the following statements is NOT one of the elements of classroom environment adaptation in the resource room:
- a. Changing the physical situation.
 - b. Using special seats.
 - c. Using large learning groups.
 - d. Using peer learning.
- 30.** Taking individual difference into consideration is one the level of:
- a. The individual.
 - b. All individuals.
 - c. All.
 - d. All of the above.
- 31.** When preparing instructional content for learners in the resource room this content should include:
- a. Independence skills.
 - b. Linguistic skills.
 - c. Academic skills.
 - d. All of the above.
- 32.** The best kind of reinforcement used with children with learning disabilities is:
- a. Sporadic
 - b. Continuous
 - c. All
 - d. None of the above
- 33.** Learners in the resource room usually exhibit desire for learning when the content contains:
- a. Material suitable for their needs and abilities
 - b. A curriculum in the form of school books
 - c. Can be easily memorized
 - d. None of the above
- 34.** When teaching practical skills Work should be divided into:
- a. Step skill task.
 - b. Task skill step.
 - c. Skill task step.

- d. Step task skill.
35. Computer and the nternet are effective aids to apply:
- a. Self learning.
 - b. Relating learning to life.
 - c. erbal communication.
 - d. one of the above.

• **The Third Domain / Evaluation Competencies**

36. The process of evaluation the instructional objectives are done by:
- a. Pre evaluation of instructional objectives.
 - b. Post evaluation of instructional objectives.
 - c. A .
 - d. one of the above.
37. One of the following is considered the best for discovering the former learning of learners with learning disabilities.
- a. Diagnostic.
 - b. inal.
 - c. ormative.
 - d. Criterion referenced.
38. One of the following is not considered one of the non standardized evaluation tools used with learners with learning disabilities.
- a. Wechsler for intelligence.
 - b. Observation.
 - c. Evaluation checklists.
 - d. uestionnaires.
39. The teacher of the resource room may put remedial plans for the weaknesses of the children after:
- a. Preparing the individualized educational plan.
 - b. The referral process.
 - c. Determining the current performance level.
 - d. The final evaluation.
40. The learner's level in math compared to others of the same age is:
- a. Criterion referenced tests.
 - b. Standard referenced tests.

- c. Dynamic tests.
 - d. All of the above.
41. One of the following statements is considered the best evaluating the psychomotor skills acquired by learners with learning disabilities:
- a. Writing tests immediately after the learning process.
 - b. Oral tests during learning.
 - c. Observing performance on learned skills and comparing compatibility with all learners.
 - d. Observing performance on skills after learning with the help of a suitable criterion and estimation of mastery level.
42. One of the following tests is NOT one of the appropriate ways to measure cognition and remembering:
- a. Multiple-choice tests.
 - b. True/false.
 - c. Fill in the blank.
 - d. Organized observation.
43. The evaluation aiming at discovering learning disabilities and putting appropriate remedy is:
- a. Formative.
 - b. Diagnostic
 - c. Final.
 - d. Constructive.
44. One of the following tests is used to measure level of what has been learned
- a. Competency tests.
 - b. Achievement tests.
 - c. Readiness tests.
 - d. Intelligence tests.
45. A good test is characterized by:
- a. Validity.
 - b. Reliability.
 - c. Comprehensiveness.
 - d. All of the above.

- 46.** The tests concerned with testing mastery level of practical skills that cannot be tested using writing tests are:
- Performance.
 - Oral.
 - Multiple-choice.
 - All of the above.
- 47.** Specification tables are designed in light of:
- The educational objectives and content.
 - The learners and teachers characteristics.
 - Activities and aids.
 - All of the above.
- 48.** To determine curriculum elements in order to build a test for a certain unit it is enough to:
- All the main elements of the unit.
 - Secondary elements.
 - All main and secondary elements.
 - None of the above
- 49.** One of the following statements is NOT considered one of the emotional characteristics of children with learning disabilities:
- Dependence on others.
 - Self-confidence.
 - Hyperactivity.
 - Attention disorder
- 50.** One of the tools used in measuring affective sides in the learner's behavior is:
- Observation.
 - Oral tests.
 - Writing tests.
 - All of the above.

The correct answer

Q. No.	Answer	Q. No.	Answer
□	D	□	□
□	C	□	D
□	□	□	D
□	D	□	C
□	A	□	A
□	C	□	D
□	A	□	□
□	C	□	A
□	D	□	□
□	C	□	A
□	D	□	C
□	A	□	A
□	D	□	A
□	A	□	C
□	D	□	□
□	D	□	D
□	A	□	D
□	C	□	□
□	A	□	□
□	□	□	D
□	A	□	A
□	D	□	A
□	A	□	A
□	D	□	□
□	□	□	A

Appendix (4)

Guide Interview Protocol

A guide for interviewing resource room teachers to measure the professional and personal competencies.

Details of each Guide Interview Protocol:

Teachers name.....

School:

Educational Directorate for theDistrict.

Gender: male female

Qualification: A Post graduate Diploma more

Academic Specialization: Special Education others

Teaching Experience: Less than years more than years

Interviewer name:.....

Interview date:.....

A Guide Interview Protocol

No	Question	Suggested questions
1.	Determining training needs in instructional competencies <input type="checkbox"/> planning <input type="checkbox"/> classroom management <input type="checkbox"/> evaluation <input type="checkbox"/>	Do you have any instructional competencies to develop <input type="checkbox"/>
1.	<input type="checkbox"/> How to fulfill these needs.	Do you like to fulfill these needs by self-learning <input type="checkbox"/> or by training workshops <input type="checkbox"/>
1.	Performance self-evaluation	Can you evaluate you own performance <input type="checkbox"/>
1.	Effectiveness of in-service training programs	Do you think the in-service training programs are effective <input type="checkbox"/>
1.	<input type="checkbox"/> Interacting with learners in the resource room in a way allowing the chance to develop positive attitudes about themselves.	What is your opinion of the teacher's management which focuses on human relations among learners <input type="checkbox"/>
1.	Developing cooperation between learners	Do you use cooperative learning strategies in your training <input type="checkbox"/>
1.	Parents teachers co-operating and concerns of children in the resource room.	Do you contribute to Parents' Councils and cooperate with them regarding their children <input type="checkbox"/>
1.	Contributing to making instructional aids using available material in the environment	<input type="checkbox"/> How much do you benefit from the materials available in the environment to design instructional aids <input type="checkbox"/>
1.	Conducting research related to special education	<input type="checkbox"/> Have you ever conducted any Special Educational research <input type="checkbox"/> in case <input type="checkbox"/> yes <input type="checkbox"/> Did you have any difficulty conducting them <input type="checkbox"/>
11.	Defining communication channel with the teachers <input type="checkbox"/> administration <input type="checkbox"/> and supervisors	Do you have good communication channel with teachers <input type="checkbox"/> administration <input type="checkbox"/> and supervisors <input type="checkbox"/>

The Training Program

Module Based on Instructional Competencies