The purpose of this study was to investigate teachers’ attitudes towards inclusive education in Jordan, and the factors that influenced such attitudes. Qualitative research was used to gather information from all general education and special education teachers. The sample consisted of 90 teachers at 7 schools. The results of this study showed that teachers’ attitudes were found to be strongly influenced by the nature and severity of the disabling condition presented to them, the length of teaching experience, and training.

In the last few decades, the view of special education has changed in all societies. Instead of segregating students with special needs in special classes and schools, the ideology of inclusive education is about fitting schools to meet the needs of all students. The educational system is responsible for including students with special needs for appropriate education for all. The idea of inclusion seems to be a major challenge in many countries (Flem & Keller, 2000; Haug, 1999; Snyder, 1999; Hughes, Schumm & Vaughn, 1996).

Several laws have proposed to open doors of public schools to students with special educational needs. The first one, that provided these services to children with special educational needs in the USA, was Public Law 94-142, the Education for All the Handicapped Act (1975). This law features two provisions:

- All handicapped children should be provided a free appropriate public education
- This education must take place in the least restrictive environment.

The previous law went through several revisions and in 1990 was renamed Individuals with Disabilities Education Act (IDEA), the law states that a continuum of placement options be made available to meet the needs of students with special needs. The law requires that:

To the maximum extent appropriate, children with disabilities are educated with children who are not disabled, and that special classes, separate schooling, or other removal of children with disabilities from regular environments occurs only when the nature or severity of disability is such that education in regular classes with the use of supplementary aids and services cannot be attained satisfactory (IDEA, Sec 612 5B).

Section 4 of the Jordanian Law for the Welfare of Disabled Persons states that a person with a disability must be provided an appropriate education according to his/her disability. The term of students with special education needs was defined as students with medical diagnoses (i.e. movement problems, visual or hearing problems, intellectual disabilities) as well as students with learning problems that affect, for example, reading, writing or arithmetic, students with behavior problems and students with speech and language problems (Al-Rossan, 2003, Al-Khatteeb 2002).

Teacher’s attitudes towards inclusion vary across the education field. Numerous studies have involved teachers’ attitudes towards inclusion, in the review below some of the studies referred to have used the term integration or mainstreaming, while others have used the term inclusion. In spite of using different terminology, they all seem to refer to a situation in which
a class, a school, or an educational system tries to meet the needs of students with special needs. In this study the term inclusion is used.

The present study explored teachers' attitudes. According to Gall, Borg, and Gall (1996) an attitude can be defined as an individual's viewpoint or disposition toward a particular object (a person, a thing or an idea, etc) (p.273). An attitude may include cognitive, effective and behavioral components.

The purpose of this study was to explore teachers' attitudes towards inclusive education in Jordan. The result of this study can be used as a guideline to enhance special education services in a developing country, like Jordan.

Literature review

As mentioned earlier, numerous studies have involved teachers’ attitudes towards inclusion and the results vary. The majority of the teachers surveyed had strong negative feelings about inclusion and felt that the decision makers were out of touch with classroom realities (Snyder, 1999). Leyser, Kapperman and Keller (1994) conducted a cross-cultural study of teachers’ attitudes towards integration in the USA, Germany, Israel, Ghana, Taiwan and the Philippines. Their findings showed that there were differences in attitude to integration between these countries. Teachers in the USA and Germany had the most positive attitudes. Teachers’ attitudes were significantly less positive in Ghana, Philippines, Israel and Taiwan.

The authors reasoned that this could probably be due to limited or non-existent training to acquire integration competencies, the limited opportunities for integration in some of these countries, teaching experiences and experience with students with special education needs. Scruggs and Mastropieri (1996) in their meta-analysis of 28 survey reports from 1958 until 1995, reported that two thirds of the respondents agreed with the general idea of integration, and a little more than half of them expressed a willingness to teach students with special educational needs in their classrooms. Another study by Vaughn, Schumm, Jallad, Slusher and Saumeel (1996) examined special education teachers’ perceptions of inclusion using focused group interviews. The majority of these teachers, who were currently participating in inclusive programs, had strong negative feelings about inclusion. The teachers identified several factors that would affect the success of inclusion, such as class size, inadequate resources and lack of adequate training.

Research has suggested that teachers attitudes might be influenced by a number of factors, these are discussed below.

- The nature and the severity of the disabilities: The nature and the severity of the disabilities influence the attitudes of the teachers. Florin (1995) found that acceptance of inclusion was lower for children with an intellectual disability than children with a physical disability. This seems to be a tendency also in other studies (Sodak, Podell and Lehman, 1998, AL-Khatteeeb, 2002, Al-Khatteeeb, 2004, Al-Khatani, 2003). Whereas, in the Clough and Lindsay (1991) study, the majority of teachers surveyed ranked the needs of children with emotional and behavioral difficulties as being most difficult to meet, followed by children with learning difficulties, followed by children with visual impairment, and followed by children with a hearing impairment. They attributed the low ranking of children with sensory and physical impairments to the relatively infrequent existence at that time of these children in mainstreams classes.

Teachers’ attitudes appear to vary with their perceptions of the specific disability, as well as the demands that students’ instructional and management needs will place on them.

- Teaching experience: Teaching experience is cited by several studies as having an influence on teachers’ attitudes, Clough and Lindsay (1991) found that younger teachers and those with fewer years of experience have been found to be more supportive of inclusion. Florin’s (1995) study, showed that acceptance of a child with a physical disability was less than six years of teaching for those with sex to ten years of teaching. The most experienced teachers more than 11 years of teaching were the least accepting. Similar results found by Leyser et al., (1994) also found that teachers with 14 years' or less teaching experience had a significantly higher positive score in their attitudes to inclusive than those with more than 14...
years. They found no significant differences in attitudes to integration among teachers whose teaching experience was between four, five and nine years and ten and 14 years. In the Roberts and Lindsell (1997) study, teachers who taught students with physical disabilities in their classes were more positive in their attitudes than teachers with no experience of inclusion. Teachers' attitudes appear to vary with their perceptions of the inclusion according to teaching experience; the above studies regarding teaching experience indicated that younger teachers and those with fewer years of experience are more supportive of inclusion. However, although the above studies indicated that younger teachers and those with fewer years of experience are more supportive of inclusive, other investigators have reported that teaching experience was not significantly related to teachers' studies (Avramidis et al., 2000).

- **Training**: Another factor that has attracted considerable attention is the knowledge about children with special education needs during pre-and in-service training. This was an important factor in improving teachers' attitudes towards the inclusion. The importance of training in formation of positive attitudes towards inclusive education was supported by the findings of Al-Khatteeb (2002) and Beh-Pajooh (1992). Marchesi (1998) found that professional training of teachers was reported to be one of the key factors of successful inclusion. In the Siegel and Jausovec (1994), in-service training was highlighted as an effective way of improving teachers' attitudes towards inclusion.

- **Factors related to the school**: Schroth, Moorman and Fullwood (1997) suggested that teachers' concerns about moving towards inclusion can be minimized using a number of strategies. They suggested that teachers should be empowered to initiate changes in their lessons and teaching plans, and they should have opportunities to visit settings where inclusion is practiced. Factors external to the school that affect the working conditions of teachers, such as financial rewards, status in the society and professional expectations, have also been found to influence the teachers' motivation and dedication (Marchesi, 1998).

- **Gender**: In the Beh-Pajooh (1992) and Leyser et al., (1994) found that female teachers expressed more positive attitudes towards the idea of integrating children with behavior problems than male teachers. However, Hannah (1998) did not mention that gender was related to attitudes.

- **Grade level taught**: Leyser et al., (1994) found that high school teachers displayed more positive attitudes towards integration than elementary schools. This was supported by Alvramdis, Bayliss and Burden (2000) and Hanwi (2003) who found that high school teachers showed more positive attitudes towards integration than primary school teachers.

**The present study**

The purpose of this study was to explore teachers' attitudes towards inclusive education in Jordan and to gain more knowledge about the factors that may influence the implementation of inclusive practices in a school system in the making; the results of this study can be used as a guideline to enhance special education services in a developing country like Jordan. The research questions were:

1. What are the teachers' opinions about inclusion of students with special education needs?
2. Which factors influence teachers' opinions about inclusion?

**Method**

**Participants**

The participants were Jordanian teachers who had experience with teaching students with special educational needs in public and special schools. The schools were selected based on these criteria:
The school should have students with special education in regular classes,
The school should include an equal distribution of rural and urban schools.
The school sample consisted of 90 teachers (54 female and 36 male) at seven schools. The distribution of participants across schools was as follows: three of the schools (one for boys, one for girls and one is mixed for boys and girls0 were public urban schools (34 participants), tow for boys and girls were public village schools (24 participants), and two (one for boys and one for girls) were private schools (35 participants). The procedure for the selection of schools did not aim at recruiting a representative sample of schools, but rather a sample of schools with teachers who might be expected to be willing to share their opinions with the researchers about inclusion and their experiences regarding students with special needs. This may have resulted in a skewed sample of teachers. It’s worth mention that the number of schools and the number of teachers participating in this study were low, and thus the results are an inadequate basis for generalization.

Instrument
A questionnaire was developed and based on the previous studies. The questionnaire sought the following information:

- Grade levels and types of subject of the participants;
- Descriptions of the disabilities;
- Physical and educational adaptations that had been made to meet the special educational needs for their students;
- The teachers’ opinions about whether or not students with special needs should have a chance to attend public schools and how to organize their education;
- The teachers’ views as to the extent that the schools were suitable for students with disabilities;
- The teachers’ wishes regarding the additional knowledge and skills they would like to have to meet the needs of students with disabilities or special needs.

Procedure
Preparations for the study involved obtaining permission from the local authorities in the Government and from the principals of the seven schools. The collection of information was performed separately in one school at a time, after school hours, with the teachers gathered in a group.

Analysis
In order to respond to the research questions, the following analyses of the data were undertaken. First, the information from the closed-ended items in the questionnaire was entered into the SPSS 7.0 statistical package. In addition an interpretational approach was applied to identify categories and subcategories in the answers and comments given to the open-ended items in the questionnaire, thus enabling to entry of this information into SPSS as well. Second, an exploratory analysis approach was applied to all data, providing frequency distributions as well as graphical displays of data. Descriptive statistical analyses indicated some not statistically significant (chi-square), interdependency between teacher or school factors and teachers opinions about inclusion. Finally, the information extracted was analyzed on the basis of the assumption that teachers’ beliefs about and acceptance of inclusive education are significant predictors of the degree to which they carry out inclusive practices. Three main themes were generated and discussed: opinions about inclusion and factors associated with teachers’ opinions, preferred models inclusion and present classroom practices.

Results
Opinions about inclusion and factors associated with teachers’ opinions
Fifty-four of the 90 teachers were of the opinion that students with disabilities or special needs should have a chance to attend public schools, A closer inspection of the data indicated
that several factors might be associated with the participants’ opinions towards inclusion, they will be discussed below.

**Nature of disability**
Twenty-three of the teachers mentioned that students with specific disabilities should be included. The most frequently mentioned were students with physical disabilities, mentioned by 21 of the 90 participants. Students with sensory disabilities were rarely mentioned; students with visual impairments were mentioned by 12 of the participants. The students considered least *includable* were the students with mental retardation and behavior problems that may affect reading, writing and arithmetic. Seven teachers specifically mentioned that students with mental retardation should not be included in public schools.

**Teachers’ experiences with students with special needs**
Thirty-six of the 90 teachers had students with special needs in their classes. Each one identified at least one student with special needs that he or she taught. Twelve of the participants reported that they taught students with physical disabilities, 7 taught students with visual impairments, 5 taught students hearing impairments, 6 taught students with behavior problems, and 6 taught students with speech and language impairment. The students with special needs had been mainstreamed in the regular classroom in manner rather than as a result of a plan for inclusion. The analysis indicated that exposure to and experience with students with special needs had an influence on teacher attitudes. Teachers who taught students with visual impairments were more positive towards including students with visual impairments than those who did not teach students with this kind of disability. The same tendency was identified for teachers of students with speech and language impairment, hearing impairment and physical impairment. Regardless of experience, all participants showed negative attitudes towards inclusion of students with mental retardation that affected reading, writing and arithmetic especially moderate and severe mentally retarded students.

**Number if subjects taught**
The participants could be divided into four groups according to the number of subjects they taught. Forty seven teachers taught one subject, 18 teachers taught two subjects, 9 teachers taught three or four subjects, and 14 teachers taught all subjects that were offered to the students. The data suggest that the acceptance of inclusion increased as the teacher taught more subjects.

**Characteristics of the schools**
The opinions about inclusion varied from one school to another. The data suggest that the acceptance of inclusion increased as school buildings were made accessible to students with special needs. All participants who had these facilities in their schools were positive towards inclusion than other teachers.

**Gender of the teachers**
There was little difference between the opinions of female teachers and male teachers. The data suggest that female teachers were more positive than male teachers.

**Models of inclusion**
The participants were asked to indicate which of the models they would prefer. The three models were: all lessons in special classes, all lessons in regular classes, and some lessons in resource rooms and some in regular classes. Among 49 participants in favor if inclusion; the most preferred model was to provide some lessons in resource rooms and some in regular classes. This was suggested by 27 of the participants in favor of inclusion. Seven preferred that the students should be taught in regular classes. Twelve of the participants preferred that the students should be taught in special classes. Three of the participants did not express an opinion about a preferred model. Frankly speaking, some teachers mentioned that there was a need for either special classes or special schools when the disability was severe.
Changes needed in public schools
Eighty-one of the participants were of the opinion that the public schools should change to meet the needs of students with special needs. They were asked to describe what kinds of changes they had in mind, 70 of them suggested that the schools buildings must change and there was a need for a special equipment such as making the schools accessible for wheelchairs, supply special desks and other furniture, have bigger classrooms, have electricity to provide light and heating. Thirty-five of the participants mentioned the need to train teachers to manage the challenges of having students with special needs in public schools. Fifty-one mentioned changes like the establishment of special classes, fewer students in the classes, changes in the curriculum, and access to transportation for those students who might need these modifications.

Training
The participants mentioned five topics of future training. The topic with highest priority was parent-teacher collaboration. The next four preferred topics concerned differentiation in the classroom and ways of organizing special needs education such as preparing individual education plans, individual instructional plans and behavior modification plans and curriculum adaptations.

Discussion
Inclusion in public school
Although inclusive education has not been fully implemented in Jordan, many teachers have experience with the inclusion of students with special needs. In this study more than half of the participants supported the idea that students with special needs should have a chance to attend public schools. This is a lower percentage that reported by Scuggs and Mastropieri (1996) in their meta-analysis of 28 survey reports concerning teachers’ attitudes towards inclusion. They found, however, that only a little more than half of the teachers in the studies they analyzed had expressed a willingness to teach students with special needs in their classrooms. There is a reason to believe that the teachers in the present study answered questions relating to this topic under the assumption that they referred to their opinion regarding students with special needs in their classrooms.

Nature and severity of disabilities
The study indicates a greater willingness among the participants to includes students with certain types of disabilities such physical disabilities rather than students with mental retardation that affect reading, writing and arithmetic, behavioral problems. In addition to the type of disability, the severity of the disability also seemed to have an influence on acceptance levels. These results are consistent with other studies (Al-Khateeb, 2002; Forlin et al., 1996, Soodack et al., 1998; Clough and Lindsay, 1991).

Teaching experience
Teaching experience with students with special needs influenced participant opinions about inclusion. Those teachers, who had experience with students with special needs in mobility and other physical disabilities, were most supportive of the idea of including students with the same disabilities. This result supported by Leyser et al., (1994) and Roberts and Lindsell (1997). It may seem surprising that the teachers were more negative to the idea of including students with behavior problems that affect reading, writing, as those with problems have always been in the public schools, as usually within he regular classrooms.

Teachers’ competence
Teachers were asked to describe in their own words how the public schools would have to change in order to meet the needs of students with special needs, 51 of the participants mentioned that teachers needed better qualifications. In addition, when they asked to selected preferred topics for future in-service training, parents-teacher cooperation, curriculum
adaptations, individual education plans, classroom management and adaptation of material were given high priorities. The teachers’ focus of interest was not on the impairments of the students but in the knowledge and skills that could empower them as professionals. Knowledge and skills in this study were considered to be more important that any other factor, have been highlighted as conductive to positive attitudes towards inclusion (Soodak et al., 1998; Leyser et al., 1994).

Conclusion
The present study investigated the opinions of selected teachers in Jordan, who had experience with students with special needs in regular schools. Due to the sampling procedure of the study and limitations of the instrument, the result must be interpreted with caution. Teachers’ beliefs and acceptance of the policy and philosophy of inclusive education are significant predictors of the degree to which they carry out inclusive practices. The affective and behavioral components of teachers’ attitudes towards inclusion should be subjective to future studies. In addition, factors that in this study have been identified as potentially influencing the opinions of the teachers, such as the nature and severity of their students’ disabilities, teachers’ previous experience with students with disabilities and contextual factors related to the individual schools, should be included in future investigations.

A majority of the teachers who participated in this study expressed a need for changes in public schools in order to meet the needs of students with disabilities, and they particularly emphasized the importance of increased knowledge and skills that could empower them as professionals. For the purposes of future initial and in-service training for teachers, it may be of interest to know to what extent such priorities are shared by other teachers in Jordan.

References
IDEA. Individuals with Disabilities Act of 1990. Section 612 (5) (b).