



The Experience of the Kingdom of Saudi Arabia in Mainstreaming Students with Special Educational Needs in Public Schools

(A Success Story)

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*In the Name of Allah, the most
Compassionate and most Merciful*



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Saudi Arabia

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The Publisher's Introduction

The Kingdom of Saudi Arabia places great emphasis and importance on education, as it is the field that prepares future generations who are the nation's true fortune. This can be seen in the funding that is allotted to education in the Kingdom, which exceeds 25% of the country's annual budget.

In this framework, individuals with special needs have unlimited support, which earns the Kingdom of Saudi Arabia a recognized position internationally in the field of special education. It enjoys a leading role in the Arab region in implementing modern educational approaches, the foremost of which being the concept of mainstreaming.

This book is a scientific documentation of the Saudi Arabian experience in mainstreaming students with special educational needs into regular education schools. It includes an overview of the historical stages of this experience, the conceptual framework upon which the experience is based, and the rationale behind it. Also included are the procedures used in implementing mainstreaming, the outcomes of mainstreaming, and the difficulties faced in the implementation of mainstreaming. Finally, the book notes factors that contributed to the success of mainstreaming in Saudi Arabia, evaluation efforts, and recommendations that the Kingdom extracted from this experience.

The Arab Bureau of Education for the Gulf States is pleased to sponsor the printing, publishing, and distribution of this book. The Bureau thanks Dr. Nasser A. Al-Mousa for the efforts he made in preparing its scientific material. He was particularly diligent to ensure the outcome of this book would achieve the goal for which it was written.

This Bureau values the continuous efforts of the Ministry of Education in Saudi Arabia in the field of special education to enhance the quality and increase the quantity of services and programs provided for students with special educational needs.

In conclusion, the Bureau offers sincere thanks to The UNESCO Regional Office for Education in the Arab States-Beirut for its cooperation in publishing this document. This is to highlight the Kingdom of Saudi Arabia's efforts in the area of mainstreaming students with special educational needs within regular public schools. It is hoped that others - nationally, regionally, and internationally- will benefit from this experience, and that they will collaborate and cooperate with us to raise the level of education in the Arab region.

May Allah grant us success!

Dr. Ali A. Al-Qarani,

Director General

The UNESCO's Introduction

Most of the educational systems around the world are now facing a challenge in providing effective, good-quality education for children, youth, and adults. In underprivileged and economically poor countries, there are approximately 72 million children receiving no education. Most of them have disabilities, or they live in conflict areas and marginalized regions. Furthermore, the most underprivileged social groups suffer from high repetition and drop-out rates, in addition to leaving school with minimal education benefit. There are also approximately 774 million adults who lack basic literacy skills (i.e. reading and writing skills).

As a response to these challenges, there is increasing support for the concept of mainstreaming and inclusive educational teaching practices, whereby students with special educational needs are placed into regular public education schools and are taught alongside their non-disabled peers. In the second half of the previous century, it was common to only educate children with special needs in parallel schools. This shift towards inclusive education reflects a genuine change in the perception of disability and the attitude towards it, from a caring perspective to a human rights and development perspective.

Inclusive education has shifted, from a theoretical educational concept and principle, to practical implementation, an essential turning point in the process of educational development from all perspectives: curriculum activities; teaching methodologies; evaluation approaches; school environment; school administration. In addition, all the participants who attended the UNESCO International Conference on Education, which was held in 2008 in Geneva, Switzerland, affirmed the importance of initiating practical steps in all countries to make inclusive education more common and widely implemented.

Despite this global development, movement towards a more inclusive education system still requires dedicated effort in the Arab region. However, there are successful initiatives in this field, such as the Saudi success story and other success stories among non-governmental organizations and community associations in different Arab states. The Saudi case, specifically, was a success story due to its widespread reach, the systematic kind of work it followed, and the political support it received.

In this framework and in light of UNESCO's programs, which encourage cooperation and exchange of successful experiences between Arab states, The UNESCO Regional Bureau for Education in the Arab States-Beirut assigned Dr. Nasser A. Al-Mousa to document the Saudi success story in the field of mainstreaming, so that it can be shared with other countries.

Dr. Al-Mousa made sure the success story was presented accurately, objectively, explicitly, and clearly due to his academic and professional experience. This is to ensure that the reader can benefit from this success story and learn from it, whether he/she is a Saudi reader or not.

The presentation includes a historical/chronological narration of the development of special education in Saudi Arabia, ranging from the initial steps of establishing special education schools, through the implementation of the mainstreaming concept. Dr. Al-Mousa outlines the conceptual framework, and presents justification for the importance of mainstreaming. In addition, he offers a holistic overview of quantitative and qualitative mainstreaming developments in the country of Saudi Arabia. He concludes the presentation by documenting the efforts made to evaluate this experience, illuminating the lessons learned from it, and presenting major future plans and recommendations to improve, as well as to develop inclusive education in Saudi Arabia and other countries.

We express our genuine appreciation and gratitude to Dr. Al-Mousa for his professional cooperation and meticulous follow-up to accomplish this work. We would also like to thank the Ministry of Education and the General Secretariat for Special Education in Saudi Arabia for their steadfast

support and assistance in facilitating the cooperation of all those who can benefit the Arab nation. Special thanks also go to the Arab Bureau of Education for the Gulf States in recognition of its collaboration in printing this work, in addition to its continuous support and cooperation with the UNESCO Regional Bureau for Education in the Arab States-Beirut in all educational issues in the Arab region.

Finally, we hope that the book, which presents this experience, will be a useful source for those who are interested in special education in the Arab region and other countries around the world.

Dr. Abdel Moneim Osman

Director of UNESCO Regional
Office-Beirut

Dr. Hegazi Yasin Idris

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Specialist UNESCO Regional
Office-Beirut

Preface

Special needs education throughout the world has undergone tremendous changes in the last century (Brownell, Ross, Colon, & McCallum, 2005; Nougaret, Scruggs, & Mastropieri, 2005). In general, it has been gradually moving away from segregated settings to a more inclusive environment (Al-Mousa, 2008a, 2008b; Huston, 2007; Kavale, 1979, 2002; UNESCO, 2003, 2004).

In Saudi Arabia, special needs education today is entering a new and productive era. The Kingdom is setting a precedent in formulating educational policies that place great emphasis on the concept of integrating students with disabilities into regular education schools in the region. Thus, educating children with special needs in regular education schools is no longer a futuristic fantasy, but a living reality. This is underscored by the fact that the most recent statistics show students with special needs receiving their education in regular schools outnumber those receiving their education in special institutes (Al-Mousa, Al-Saratawi, Al-Abduljabbar, Al-Batal, & Al-Husain, 2008).

It is hoped that such a move will improve the environment in which students with special educational needs are educated, hence, enabling them to advance in a society whose growth is beyond imagination.

The aim of this book is to shed some light on the experience of Saudi Arabia in mainstreaming students with special educational needs in public schools.

Historical Background

Persons with disabilities have passed through several stages, ranging from the stage of separation and/or even deprivation of life in some ancient civilizations, to the stage of integration and full participation in today's civilization (Cross, 1976; Lowenfeld, 1975; UNESCO, 2003).

There are many specific circumstances that have influenced the living conditions of persons with disabilities. Ignorance, neglect, superstition, and fear are social factors that have isolated persons with disabilities and delayed their development (UNESCO, 2004).

Throughout history religions, in general, have contributed positively to the conditions of persons with disabilities (Kirtley, 1975). In the Middle Ages, Islam played a pioneering role in sparking the scientific and intellectual movement in the world of the disabled (Ross, 1951).

Al-Azhar University in Egypt was the first higher education institution in the world to open its doors for the blind. This was in the year 970 AD (Farrell, 1956). This inherent tradition continued to spread in the Arab states (Al-Mousa, 1992).

In the 17th century, some persons with disabilities acquired education and showed outstanding achievements in various fields of endeavor. In the 18th and 19th centuries, special education institutions began to emerge and flourish in Europe, America, and throughout the world. In the 20th century, the concepts of "Normalization" and "Integration" came into existence (Lowenfeld, 1975). In the second half of the 20th century, the concept of "Mainstreaming" came of age (Kavale, 1979, 2002). As a result, many countries have enacted legislation and developed policies to ensure mainstreaming of children with special educational needs in regular education schools (Hallahan & Kauffman, 2000; Osborne & Dimattia, 1994).

The principle of "Inclusive Education" was adopted at The World Conference on Special Needs Education: Access and Quality (Salamanca, Spain, 1994) and was restated at The World Education Forum (Dakar, Senegal, 2000 cited in UNESCO, 2004).

The 48th International Conference on Education held in Geneva, Switzerland, recommended that Member States: "adopt an inclusive education approach in the design, implementation, monitoring, and assessment of educational policies as a way to further accelerate the attainment of Education for All (EFA) goals, as well as to contribute to building more inclusive societies" (48th ICE Conclusions and Recommendations, 2008).

In Saudi Arabia, special groups have had care, attention, and unlimited support since the Kingdom was founded by King Abdul-Aziz bin Abdul-Rahman Al-Faisal Al-Saud until this prosperous era of the Custodian of the Two Holy Mosques, King Abdullah bin Abdul-Aziz Al-Saud, His Royal Highness, Crown Prince Sultan bin Abdul-Aziz Al-Saud, and the Second Deputy Premier, His Royal Highness, Prince Naif bin Abdul-Aziz Al-Saud.

Unlike the beginning of many countries in Europe and America, education of children with disabilities in Saudi Arabia began in the form of regular education schools, but later it was transformed into separate schools, coinciding with other countries. This took place with the emergence of the first special education institute, namely, Al-Noor Institute for the Blind in Riyadh, in 1960. This was followed by the establishment of other institutes for the blind, the deaf, and the mentally retarded. Consequently, special education accelerated its pace despite its relatively short experience within the Kingdom. This resulted in a marked increase in the number of institutes and the number of students enrolled in these institutes.

Over the years, special education services have spread throughout the vast kingdom, not only in the number of such institutes which follow the Segregation Model, but also the kingdom soon started the implementation of the mainstreaming concept in public schools (Al-Mousa, 1999).

The Kingdom of Saudi Arabia is the first Arab country to implement mainstreaming in its schools on scientific basis. The first successful trials of mainstreaming took place in the city of Hufuf, in the Eastern Region of the Kingdom in 1984. In 1989, the kindergarten at King Saud University in Riyadh was opened for children with special educational needs. In 1990, the Ministry of Education started implementing mainstreaming in its schools on a limited scale. However, the great leap in mainstreaming took place in 1996 when the Ministry put forward an educational strategy with ten major themes. The first theme focused on activating the role of public schools in the education of exceptional children wherein they were integrated with their normal peers (Al-Mousa et al., 2008).

At the recent 3rd International Conference on Disability and Rehabilitation: Research and Disability held in Riyadh, Saudi Arabia, it was strongly recommended for the Kingdom to continue the expansion of mainstreaming programs. It was also emphasized that the Kingdom should gradually move towards more inclusive approaches in education (3rd ICDR Conclusions and Recommendations, 2009).

With respect to legislation and regulations concerning persons with disabilities, the ministries of education, social affairs, and health have been making concerted efforts to formulate policies and prepare organizational bylaws since the early days of special education and rehabilitation programs in the Kingdom.

These efforts finally culminated in the enactment of the Provision Code for Persons with Disabilities in the Kingdom in the year 2000. This law ensures the rights of persons with disabilities in all aspects of life, including a free appropriate public education. To ensure proper implementation of the law, Article 8 stipulates that a supreme council for the affairs of persons with disabilities shall be established.

Article 9 states that the Supreme Council shall be authorized in the organization of the affairs of persons with disabilities. It will also be charged with full responsibility for formulating policies and overseeing activities in the field of disability (PCPD, 2000).

The Document of Rules and Regulations for Special Education Institutes and Programs was issued by the Ministry of Education in 2002.

Article 18 in Chapter 3 of this document reaffirms that regular schools are the natural environment for educating students with special educational needs (The Document of Rules and Regulations for Special Education Institutes and Programs, 2002).

In 2008, the Kingdom signed and ratified the Convention on the Rights of Persons with Disabilities and its Protocol. In 2009, the Kingdom organized, in cooperation with the Arab League, a regional symposium to help Arab states put forward a workplan to implement the Arab Decade of Disabled Persons and the Convention on the Rights of Persons with Disabilities.

Article 24 of the Convention calls on States Parties to ensure an inclusive education system at all levels and life-long learning experience (The Convention on the Rights of Persons with Disabilities, 2006).

Definitions and Terminologies

Over the years, many definitions of mainstreaming have been proposed. Kavale (2002) pointed out that the most comprehensive and most often quoted definition of mainstreaming was provided by Kauffman, Gottlieb, Agard, and Kukic (1975). According to them: "Mainstreaming refers to the temporal, instructional, and social integration of eligible exceptional children with normal peers based on an ongoing, individually determined, educational planning, and programming process and requires clarification of responsibility among regular and special education, administrative, instructional, and supportive personnel." (p. 3).

To distinguish between the term "Mainstreaming" and the term "Inclusion", Huston (2007) asserted that: "Mainstreaming has been used to refer to the selective placement of special education students in one or more regular education classes."

In Saudi Arabia, the Ministry of Education has adopted the following definition: "Mainstreaming, operationally, means educating children with special educational needs in regular education schools, and providing them with special education services." (The Document of Rules and Regulations for Special Education Institutes and Programs, 2002, p. 8).

The term "Special Institutes" or "Special Education Institutes", as they are known in Saudi Arabia, will be used in this book to refer to separate schools, special schools, or special education schools. These schools include: schools for the blind, schools for the deaf, and schools for the mentally retarded.

The term "Mainstreaming Programs" will be used in this book to refer to special education programs in regular education schools. These programs include: self-contained classroom programs, resource room programs, itinerant teacher programs, teacher-consultant programs, and follow-up programs.

Rationale

At the outset, it should be emphasized that the following justifications are not for the idea of mainstreaming itself, but rather for the implementation of the idea in regular schools in Saudi Arabia. This is due to the fact that regular schools are the natural environment for the education of children with disabilities, while separate schools are an artificial environment, as it is based on a philosophical framework which entails that the differences between children with disabilities and their normal peers are so fundamental that they require different educational methods and strategies.

The underlying reasons that made Saudi Arabia implement the idea of mainstreaming can be summarized as follows:

I. The Position of Islam Towards Persons with Disabilities:

Equality among people is a noble principle which is sought by human beings in all corners of the globe. In Islam, true competition is not based on property, race, social status, wealth, color, sex, or completeness of physical, sensory, or mental abilities, but, rather, it is based on the piety to God in word and action. The methods of interaction among all different groups in the Muslim society, including the groups of persons with disabilities, are civilized, elevated, and governed by sublime proper understanding and mutual respect of the potentialities and capabilities of each group.

Islam has ensured for persons with disabilities a conducive environment which enables them to achieve their highest aspirations. In Islam, persons with disabilities are, firstly, human beings, and then they are secondly, disabled persons who have rights to enjoy, and have duties to perform as any member of the community.

Nothing can explain the inherent rights of persons with disabilities in Islam more than when Allah, the Almighty, blamed His Prophet, Muhammad (*peace be upon him*) regarding Abdullah bin Um Maktoum,

where Allah, the Almighty, says: "*(The Prophet) frowned and turned away (1), Because there came to him a blind man (interrupting) (2), But what could tell thee but that perchance he might grow (in spiritual understanding)? (3) Or, that he might receive admonition, and the teaching might benefit him? (4).*" (Holy Qur'an, chapter 80).

There is no better manifestation for the nobility and elevation of Islam towards persons with disabilities than the Prophet's method of dealing with a blind companion (*Sahaabi*) in the Prophet's saying (hadith) narrated by Muslim from Abu Hurayrah (may Allah be pleased with him). He said: "A blind man came to the Prophet (*peace be upon him*) and said: "O Messenger of Allah, I do not have a guide to lead me to the mosque", and asked the Messenger of Allah to allow him to pray in his home. First, the Messenger (*peace be upon him*) permitted him, then he asked him: "Do you hear the prayer call?" Yes, said the blind man. The Messenger said: "Then, answer the call."

In addition to emphasizing the importance of the congregational prayers in Islam, this saying of the Prophet is a wonderful model for dealing with persons with disabilities. Also, there is an admonition for them to reject isolation, and to integrate into the society, as performing prayers in the mosque means that they meet their peers five times a day. Even non-Muslims praised the pioneering role of Islam in the education and rehabilitation of persons with disabilities (Farrell, 1956; Kirtley, 1975; Ross, 1951).

It is clear that a religion with such greatness must have instilled in the hearts of its believers the highest principles, the greatest ideals, and the noblest values which guarantee its members with disabilities not only success in their school life along with their ordinary peers, but in their public life as well.

II. Literature Regarding Mainstreaming:

Mainstreaming children with special educational needs in regular education schools has been a center of attention in the educational circles all over the world. Various research projects and studies have been conducted

so as to understand the concept of mainstreaming, its components, definitions and terminologies, programs and tools, the stages of its development, the bases and foundations upon which it stands, as well as the techniques of successful implementation, in addition to its advantages and disadvantages, and its results and effects (Al-Mousa, 2004).

Al-Mousa et al. (2008) reviewed the literature regarding mainstreaming through the following four major areas:

- 1- Academic performance in the mainstreamed environment.
- 2- Adaptive behavior in the mainstreamed environment.
- 3- Attitudes towards mainstreaming.
- 4 - General studies regarding mainstreaming.

They came to the following conclusions:

- 1- Studies have agreed, in general, upon the importance of mainstreaming students with special educational needs in regular schools on the condition that it is conducted in accordance with clear scientific measures.
- 2- Mainstreaming, when it is implemented properly, can contribute to the enhancement of quality of education for both normal and exceptional students.
- 3- Educational outcomes of many students with special educational needs have been positive.
- 4- Academic performance of normal students was not affected by the presence of students with disabilities in regular classes.
- 5- Students with special educational needs have shown the ability to interact and participate actively in the mainstreamed environment through the aid of special education teachers.
- 6- Students with special educational needs have achieved academic, behavioral, and social gains in different mainstreamed environments. They have also demonstrated an increase of positive social interaction and related skills as well as a reduction in the recurrence of inappropriate behavior.
- 7- The results of some studies have shown a clear impact of service delivery models on students with special educational needs in the behavioral field, as adaptive behavior among students receiving

external care improved compared to those receiving residential care. However, other studies have shown that some groups of students with special educational needs have feelings of isolation and dissatisfaction with their social relationships.

- 8- Teachers, principals, and type of specialty played an important role in the success of mainstreaming.
- 9- Teachers and principals' attitudes towards mainstreaming are characterized by lack of stability. Some have positive attitudes towards mainstreaming, others have negative attitudes. Those attitudes are affected by variables such as: nature of disability, sex, educational experience, years of experience, and type of specialty.
- 10- The attitudes of disabled and non-disabled students toward mainstreaming seem to be acceptable. However, teachers and principals of both sexes in some special education institutes expressed their opposition to the concept of mainstreaming, believing that it is not beneficial for disabled and non-disabled students alike.
- 11- Mainstreaming students with disabilities in regular schools improves some aspects of the students' adaptive behavior such as independent living skills, linguistic growth, physical development, self-orientation, vocational activity, and social responsibility.
- 12- Some groups of special education students need social support to reduce the impact of strongly-felt pressure of life events. This social support is also necessary to promote and foster their psychological and social adjustment as well as to enhance their integration into regular schools and public life.

III. The Position of Researchers and Educators Towards Special Education Schools:

McIntire (1985) said that residential schools as a way to provide educational services for persons with disabilities have been questioned for many years. These schools have been criticized since their inception.

One criticism came from Dr. Samuel G. Howe, the founder of one of these schools, the director of what is now the Perkins School for the Blind, and who has had a great impact on the education of the blind in America. In

1866, in his famous speech on the inauguration of a school for the blind in New York State, USA, he said: "Such institutions are all unnatural, unwarranted, and subject to abuse. We must reduce them as much as possible, and those remaining should be kept small to the extent possible" (Lowenfeld, 1973, p. 8).

Al-Hamdan and Al-Saratawi (1987) pointed out that several studies have criticized special education service delivery models which separate children with disabilities from their normal peers since those models focus only on the disability aspect in the child's personality. This often results in overlooking other positive aspects of his/her life.

Also, Al-Shakhs (1987) indicated that critics of special education institutions have warned of some weaknesses pertaining to the content of the curriculum, and the competencies of the teachers in these institutions. Moreover, the learning environment in these institutions creates psychological barriers between children with disabilities and their non-disabled peers. As a result, the use of special schools as an educational model can result in adverse effects on the academic achievement, personal development, social adjustment, and psychological growth of the disabled child.

Proponents of inclusive approaches assert that separate programs are detrimental to students, and do not meet the original goals for special education (Huston, 2007).

IV. Cost-Effectiveness:

The cost of educating students with disabilities in segregated schools is much greater than educating them in regular schools. The following are the reasons:

- a) Educating students with disabilities in segregated schools requires the construction, purchase, or at least rental of huge premises that cost large sums of money.
- b) These buildings need to be furnished and equipped.
- c) These buildings with their furniture, equipment, and facilities need constant maintenance.

- d) These buildings with their teachers, students, and employees require a large administrative team to undertake the process of supervision and follow-up.

In contrast, educating students with disabilities in regular schools does not need more than a room with simple spatial, personal, and preparation requirements in the regular school. As the educational system moves toward more inclusive approaches, the need for such a room will be diminished.

Moreover, research has demonstrated that educating students with disabilities in integrated programs is more cost-effective than educating them in segregated programs (Affleck, Madge, Adams, & Lowenbraun, 1988; Piuma, 1989; UNESCO, 2003, 2004; Walker & Ovington, 1998).

V. The Advantages of Mainstreaming:

Researchers and educators have highlighted the advantages and disadvantages of mainstreaming students with disabilities in regular education schools.

Al-Mousa (1992) has summed up the most important advantages of mainstreaming as viewed by researchers and educators in the field of special education as follows:

- 1- The regular school is considered to be the natural environment in which both disabled and non-disabled children can grow alike; therefore, modifying a natural environment in order to meet the special needs of children with disabilities is easier and more effective than modifying an artificial environment so that it can meet the basic academic, social, psychological, or communicative needs, etc.
- 2- Mainstreaming offers children with special educational needs the opportunity to live a normal life within their families. This enables them to be active members in their social environments. At the same time, mainstreaming enables the families and local communities to fulfill their obligations towards these children.
- 3- Mainstreaming works to prevent the emergence of the stigma associated with special classes or schools.

- 4- Mainstreaming reduces centralism in the provision of educational services. This creates an environment that would enable local communities to influence the process of educating students with disabilities. Also, this provides various local educational institutions with the opportunity to benefit from the experience of educating children with disabilities.
- 5- Mainstreaming is a flexible educational means through which the educational programs for students with special educational needs can be increased, improved, and diversified.
- 6- Educating children with disabilities in regular classes offers them the opportunity for social interaction with their non-disabled peers.
- 7- The mainstreamed environment increases social acceptance of children with disabilities by their non-disabled peers.
- 8- Mainstreaming enables children with disabilities to simulate and imitate the behavior of their non-disabled peers.
- 9- Mainstreaming increases the opportunities for communication between children with disabilities and their non-disabled peers.
- 10- Educating disabled and non-disabled children, together, at an early age, improves the attitudes of each side towards the other.
- 11- Mainstreaming creates a social environment in which non-disabled children can, directly, identify the strengths and weaknesses of their disabled peers which leads to the reduction and/or elimination of any misconceptions that they may have about children with disabilities.
- 12- Mainstreaming creates a realistic environment wherein children with disabilities are exposed to a variety of experiences and different influences that would enable them to form accurate and realistic concepts about the world in which they live.
- 13- Mainstreaming creates an educational environment that encourages academic competition among all students. This contributes to improving the academic performance of children with disabilities.
- 14- Mainstreaming broadens our understanding of the individual differences among children.
- 15- Mainstreaming gives specialists and non-specialists, alike, a clear idea that the points of similarity between disabled and non-disabled children are more than the points of dissimilarity.

Targeted Groups

In Saudi Arabia, two groups are targeted by mainstreaming. The first group is already found in regular schools and is benefiting from their educational programs. Therefore, they need special education programs in these schools. This group includes the gifted and talented, the learning disabled, the physically disabled, the behaviorally and emotionally disturbed, low vision students, and those with communication disorders.

The second group consists of those who are traditionally taught in special education institutes or self-contained classes. However, they need to be educated in more inclusive settings. This group includes the blind, the deaf, the hard of hearing, the mentally retarded, the multi-disabled and autistic children.

Implementation

The mainstreaming project in Saudi Arabia is implemented in two ways:

1- Partial Mainstreaming:

This type is accomplished through the establishment of self-contained classes in regular schools. In this service delivery model, students with special educational needs receive their special education in self-contained classes. This gives them the opportunity to be mainstreamed with their non-disabled peers in some curricula and non-curricula activities as well as the school facilities.

2- Full Mainstreaming:

This type is accomplished through the establishment of special education support programs in regular schools. These programs include: resource room programs, itinerant teacher programs, and teacher-consultant programs. In these programs, students with special educational needs receive public education alongside their normal peers in regular education classrooms most of the school day. These students are pulled out from regular classes to receive special education services only in the subjects that can not be taught by regular education teachers.

The process of pulling out students with disabilities from regular education classrooms is governed by variables such as the student's need for special education services, nature of disability, severity of disability, the grade in which the student is enrolled, and other variables that the educational situation dictates to both the special education teacher and the regular classrooms teacher.

Outcomes

Because of its educational, social, psychological, and economic effects, mainstreaming has brought pervasive quantitative and qualitative changes to the education of children with special educational needs despite the Kingdom's short experience in this field.

The quantitative growth is indicated by the increase of institutes and mainstreaming programs from 66 in the academic year 1994/1995 to 3,239 in 2006/2007. (See Figure 1). A parallel increase has taken place in the number of students enrolled in these institutes and programs. This amount increased from 7,725 in the academic year 1994/1995 to 61,986 in 2006/2007. (See Figure 2).

As for the qualitative growth, it is signified by the following:

- 1- The rise in the number of institutes and programs came in favor of the mainstreaming programs established in regular education schools. These mainstreaming programs increased from 12 in the academic year 1994/1995 to 3,171 in 2006/2007, while the institutes only increased from 54 to 68. This little increase in the number of special education institutes is due to dividing multi-level ones into separate entities or to opening new institutes especially for girls.
As a result, students receiving special education services in regular schools have greatly exceeded, in number, those receiving such services in special education institutes. In the school year 2006/2007, statistical data showed that 93% of special education male students and 73% of female students were mainstreamed. (See Figures 4, 5, & 6).
- 2- Special education is no longer concentrated only in densely populated cities, but has expanded to include rural areas in our vast Kingdom.
- 3- Special education services are no longer confined to those well-known, traditional disability groups such as the blind, the deaf, and the mentally retarded. These services have extended to include the gifted and talented, the learning disabled, the physically disabled, the

multi-disabled, autistic children, low vision students, and hard of hearing students. (See Table 1). Work is underway to develop new programs to accommodate all groups that fall within the scope of the comprehensive concept of special education.

- 4- Many service delivery models have been established in the Kingdom to provide special education services so as to meet the diverse needs of all children with special educational needs. These service delivery models include: residential schools, day schools, self-contained classes, resource room programs, itinerant teacher programs, teacher-consultant programs, and follow-up programs. (See Table 2).

Figure 1.
Quantitative growth of special education institutes
and mainstreaming programs during the period
from 1994/1995 to 2006/2007

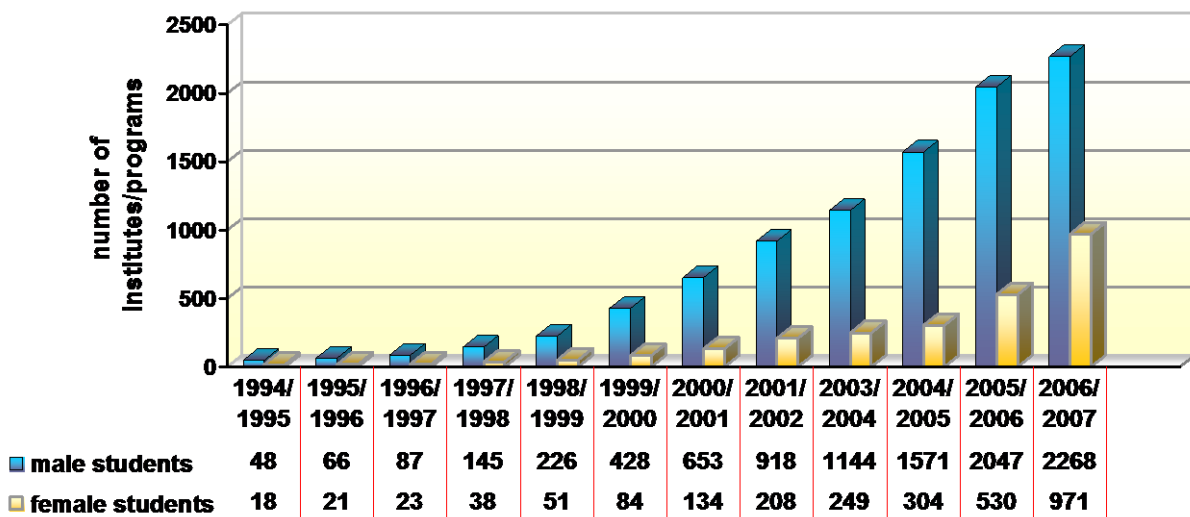


Figure 2.
Quantitative growth of students in
special education institutes and mainstreaming
programs during the period from
1994/1995 to 2006/2007

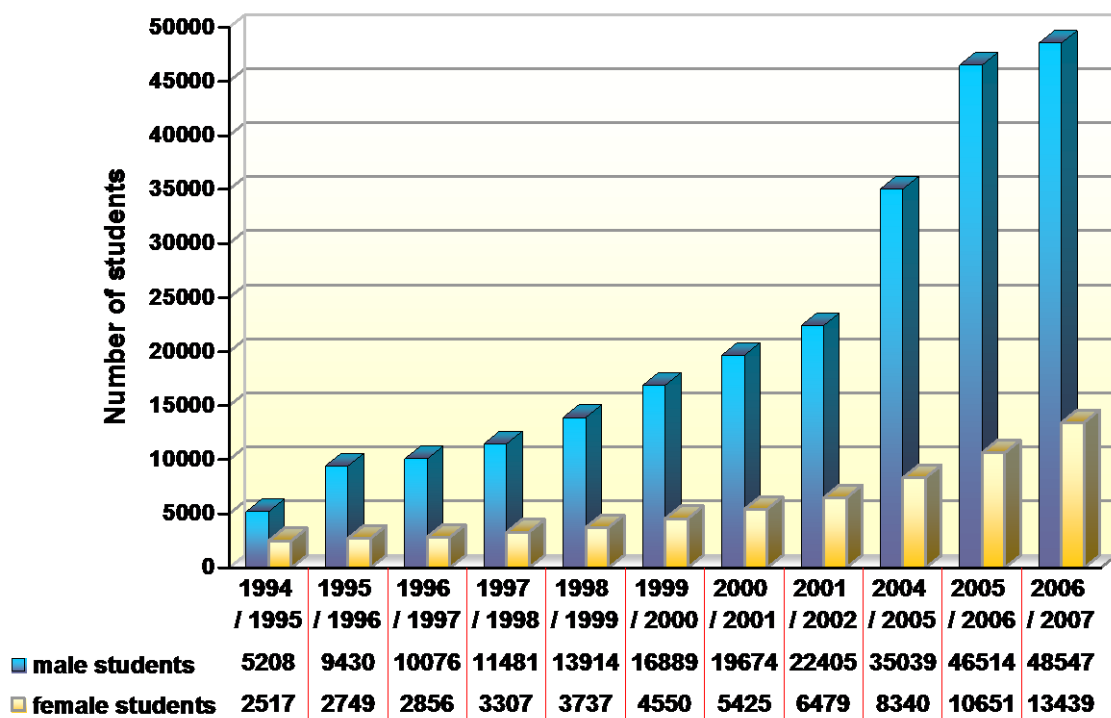


Figure 3.
Qualitative growth of special education institutes
and mainstreaming programs during the period
from 1994/1995 to 2006/2007

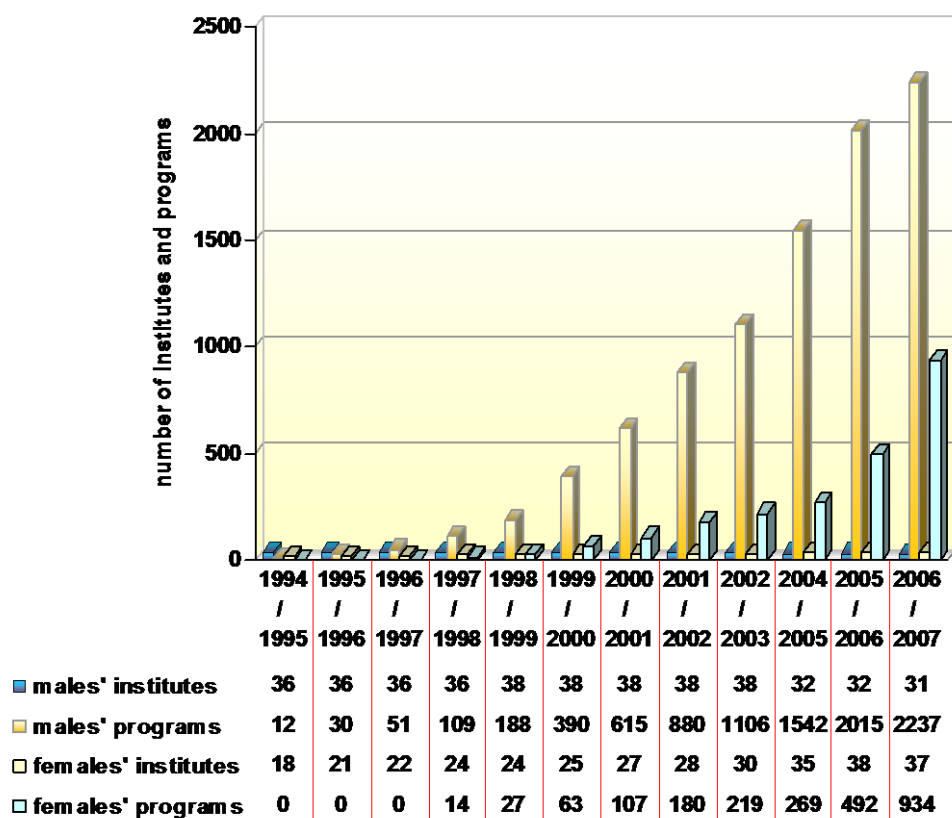


Figure 4.
Qualitative growth of students in special
education institutes and mainstreaming
programs during the period
from 1994/1995 to 2006/2007

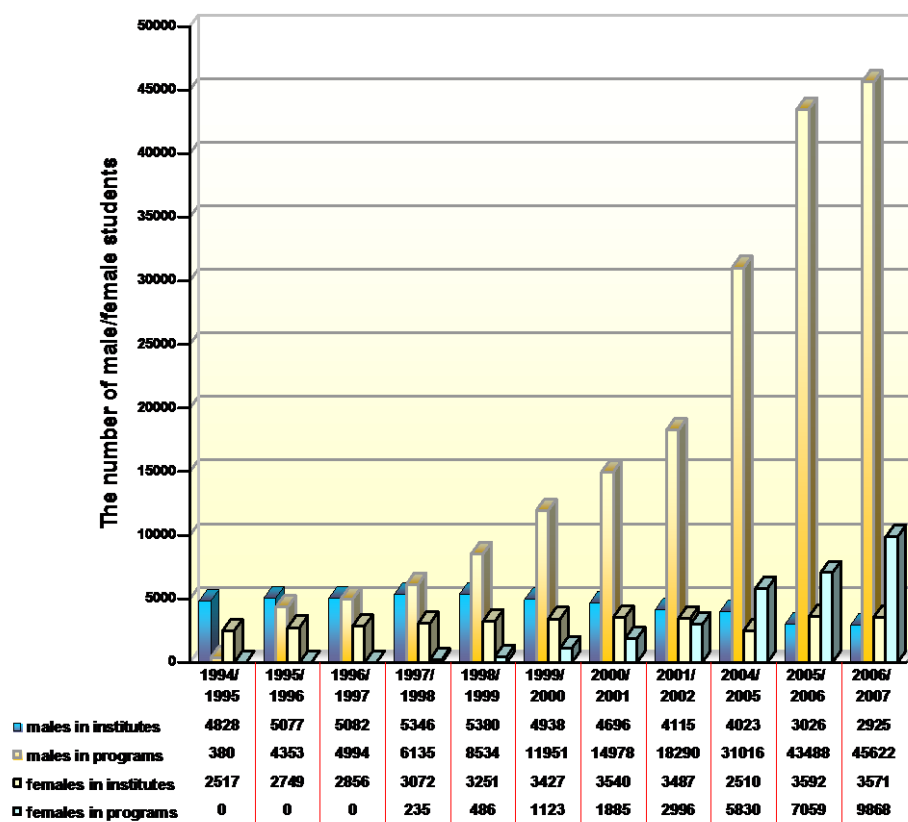
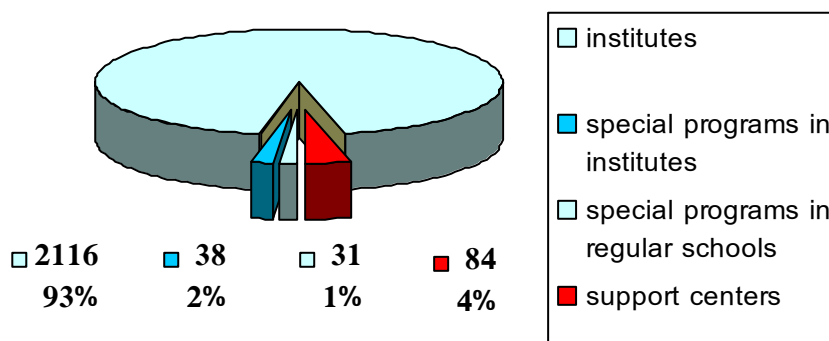


Figure 5.
Distribution of special education institutes, mainstreaming programs, and support centers according to educational placements in the school year 2006 / 2007

a) Boys



b) Girls

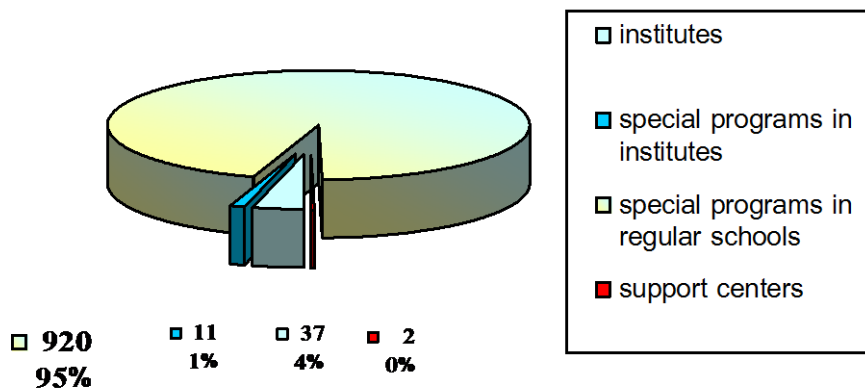
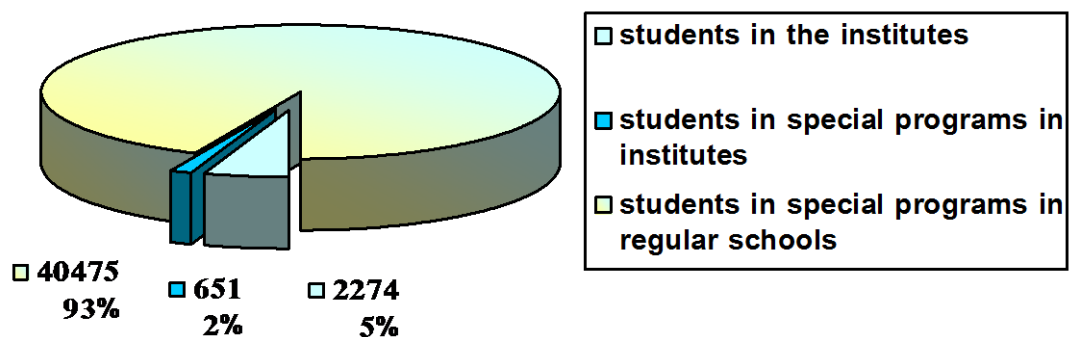


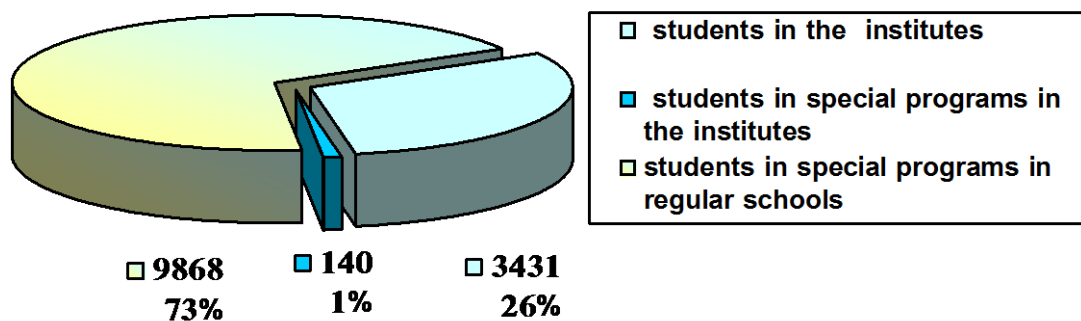
Figure 6.

Distribution of male and female students in special education institutes and mainstreaming programs according to educational placements in the school year 2006 / 2007

a) Boys



b) Girls



• *Remarks on the Previous Figures:*

- 1- The period from 1994/1995 to 2006/2007 represents the years of the Sixth, Seventh, and part of the Eighth Five-Year Development Plans in Saudi Arabia. It gives a vivid example of the progress that our country has made in the field of education for children with special educational needs despite its limited time (only 12 years), and its limited place (only special education institutes and mainstreaming programs in the Ministry of Education).
- 2 - It should be stressed here that the steady increase in the number of special education students is not related to a high incidence rate of disability, but rather due to the following reasons:
 - a) The increasing awareness of disability in the Saudi society.
 - b) The efficacy of the means used to detect and identify children with special educational needs.
 - c) The expansion in the provision of special education services.
- 3 - The great leap in the number of students in the academic year 1995/1996 does not express real growth, but it is a result of the addition of statistics concerning students enrolled in special education programs for both low vision students and physically disabled students. The constancy of those two numbers over the past years is due to the fact that the statistics in these two programs have not been updated. Work is underway to update these statistics, and to develop the two programs to become more effective.
- 4 - Students benefiting from special education support centers were excluded from the statistics in Figure (6) because the overwhelming majority of them are enrolled in special education institutes and mainstreaming programs where they receive basic services. Services provided by these centers are not more than usual support services such as diagnosis and evaluation, speech therapy, and some remedial programs for the learning disabled, as well as some enrichment programs for the gifted and talented. Work is underway to include physiotherapy services, occupational therapy services, etc. These services are often provided during the evening.

- 5- Statistics concerning the academic year 2003/2004 in Figures (1) and (3), as well as those for the two academic years 2002/2003 and 2003/2004 in Figures (2) and (4) were excluded. This was due to inaccuracy in the data collected at that time, which was a transitional period from paper to electronic information registration.
- 6- Reliable and detailed statistics concerning the academic years 2007/2008 and 2008/2009 are yet to be available. However, preliminary data obtained from the Ministry of Education for the academic year 2008/2009 indicate that the total number of special education institutes and mainstreaming programs is 3657, and the total number of students enrolled in these institutes and programs is 70,449.

Table 1.

Distribution of institutes, mainstreaming programs,
and students in special education, Ministry of Education,
Kingdom of Saudi Arabia in the school year 2006/2007
according to the benefiting groups

Benefiting Category	No. of Institutes, Programs, Centers			No. of Students		
	Male	Female	Total	Male	Female	Total
1-The hearing Impaired:						
a) deaf students	218	82	300	2868	2048	4916
b) hard of hearing students	79	41	120	3211	560	3771
Total	297	123	420	6079	2608	8687
2- The Visually Impaired:						
a) blind students	171	42	213	1048	538	1586
b) low vision students	1	1	2	2000	70	2070
Total	172	43	215	3048	608	3656
3- The Mentally Retarded: (The educable)	645	165	810	12053	3803	15856
4- The Learning Disabled	742	503	1245	7849	4092	11941
5- The Gifted & Talented	293	120	413	15956	2167	18123
6- Autistic children	54	9	63	423	92	515
7-The Multi-Disabled	56	8	64	438	69	507
8-The Physically Disabled	1	-	1	1642	-	1642
9- More-than-one category	8	-	8	1059	-	1059
Grand Total	2268	971	3239	48547	13439	61986

• *Remarks on Table (1) and the Groups Included:*

- 1- The number of special education institutes, mainstreaming programs, and support centers at the Ministry of Education, Kingdom of Saudi Arabia in the academic year 2006/2007 reached (3,239). The number of students benefiting from these programs in the same school year was (61,986).
- 2- Support centers and mainstreaming programs for the learning disabled occupy the forefront of the list in terms of number, followed by the institutes and programs for the mentally retarded, then the institutes, centers, and programs for the hearing impaired, and then centers and programs for the gifted and talented. Next, come the institutes and programs for the visually impaired. The programs for autistic students and multi-disabled students come near the end of the list only preceding the multi-group programs and the programs for the physically disabled.

As for the number of students in these institutes, programs, and centers, they can be put in the following descending order:

- a) Students in the centers and programs for the gifted and talented.
 - b) Students in mental retardation institutes and programs.
 - c) Students in learning disabilities programs.
 - d) Students in hearing impairment institutes, centers, and programs.
 - e) Students in visual impairment institutes, centers, and programs.
 - f) Students in physical disability programs.
 - g) Students in multi-group programs.
 - h) Students in autism programs.
 - i) Students in programs for the multi-disabled.
- 3- Despite the fact that the Ministry of Education did not start establishing programs for the learning disabled until the academic year 1995/1996, such programs have spread very quickly throughout the Kingdom. In the academic year 2006/2007, the number of regular schools that have resource room programs for the learning disabled reached (1,245) Kingdom-wide, in addition to (27) evening support centers.

The number of such schools is expected to rise very rapidly since the establishment of resource room programs for the learning

disabled in these schools depends on the number of teachers specializing in the field of learning disabilities. These teachers usually graduate from the special education department at King Saud University, and the special education department at the Teachers College in Jeddah, in addition to teachers who are expected to graduate from other Saudi colleges and universities.

- 4- At the beginning of the academic year 1997/1998, a giant project for the gifted and talented was launched. It aims to provide special education services for this group. This project consists of two phases. The first phase is to identify gifted and talented students through using measurement scales standardized for the Saudi environment, or designed for the purpose of the program. The second phase is to provide these students with on-going educational, social, and psychological care.

The focus at the present stage is on the use of the available programs which are offered through evening centers. According to plan, these centers will gradually transform into resource room programs in regular schools.

In the school year 1999/2000, a general directorate for the care of gifted and talented male students was established in the Ministry of Education. Its objective is to supervise centers and programs for these students throughout the Kingdom. Also, in the academic year 2001/2002, a similar directorate was established in the Ministry for the care of gifted and talented female students.

To support the programs for gifted and talented individuals at the Ministry of Education and other sectors in the Saudi society, a foundation called "King Abdul-Aziz and His Companions foundation for Giftedness and Creativity" was established. This foundation has been a center of attention in the social and educational circles throughout the Kingdom. It is honored for being under the auspices of King Abdullah bin Abdul-Aziz, the Custodian of the Two Holy Mosques.

- 5- The correlation between the number of students and the number of special education institutes, support centers, and mainstreaming programs is governed by important variables such as:

- The nature of disability.
- The level of disability.
- The educational needs of the child, etc.

According to these variables, some groups require intensive specialized services to form the bases for their education, while other groups do not need, or to be more accurate, they currently receive only simple services. For example, the group of gifted and talented students benefiting from these specialized services comes to the forefront despite the fact that their centers and programs are not the highest in number. This can be attributed to the fact that the services provided for this group, in its present form, are only simple supplementary services designed to provide positive impact on the performance of these students and the development of their special talents. This means that lack of these services does not adversely affect their performance or talent.

- 6- Male students benefiting from special education services outnumber female students benefiting from these very same services. Two main reasons explain this difference:
- a) The prevalence of disability among boys with learning disabilities, and those with autism is greater than its prevalence among girls in these two areas.
 - b) In the groups that have equal prevalence of disability, this can be attributed to the expansion of special education services, in general, and the widespread of mainstreaming programs in public schools, in particular, in the boys' sector compared to that of the girls'.

It should be noted that this discrepancy in the rate of quantitative growth of education between boys and girls in special education does not coincide with regular education as statistics of the Ministry of Education show that the education of girls was growing "as fast as that of boys, if not faster (Statistical Report on the Education of Boys and Girls in the Kingdom of Saudi Arabia, 2006).

- 7- There are some groups that have not benefited from special education services such as the behaviorally and emotionally disturbed. Work is

underway to develop programs for this group and other groups that need these services.

- 8- As mentioned before, reliable and detailed statistics concerning the academic years 2007/2008 and 2008/2009 are not available at this time. However, preliminary data obtained from the Ministry of Education for the academic year 2008/2009 indicate the total number of special education institutes and mainstreaming programs is 3,657; the total number of students enrolled in these institutes and programs is 70,449. The same statistics show the increase in the number of students almost exclusively favored the group of gifted and talented students of both sexes. The data also show 49, 8% of gifted and talented students benefit from enrichment programs only offered in the summer, in the evenings, and on weekends.

Table 2.

Distribution of special education institutes, mainstreaming programs, and support centers at the Ministry of Education, Kingdom of Saudi Arabia in the school year 2006/2007 according to service delivery models

Service Delivery Model	Benefiting Category	Institutes		Programs		Centers		Total
		Male	Female	male	Female	male	female	
1- Residential Institutes	a) Deaf Students	6	4					10
	b) Blind Students	5	3					8
	c) Mentally retarded Students (educable)	2	2					4
	Total	13	9					22
2- Day Institutes	a) Deaf Students	8	12					20
	b) Blind Students	1	4					5
	c) Mentally retarded Students (educable)	9	12					21
	Total	18	28					46
Grand Total of the Institutes		31	37					68
3- Support Centers a) Hearing and Speech Centers b) Centers for the Learning Disabled c) The Gifted & Talented d) Centers for the Visually Impaired e) Centers of Special Education Services	a) Mentally Retarded and Hard of Hearing Students					15	2	17
	b) The Learning Disabled					27	-	27
	c) The Gifted & Talented					33	-	33
	d) The Visually Impaired					1	-	1
	e) All Categories					8	-	8
	Total					84	2	86
4- Special Classes in special Institutes.	a) Deaf Adults & Literacy Programs			2	-			2
	b) Autistic Children			12	6			18
	c) Multi-Disabled Students			22	6			28
	d) Blind Adults			2	-			2
	Total of These Programs			38	12			50

Table 2. (Continued)

Distribution of special education institutes, mainstreaming programs, and support centers at the Ministry of Education, Kingdom of Saudi Arabia in the school year 2006/2007 according to service delivery models

Service Delivery Model	Benefiting Category	Institutes		Programs		Centers		Total
		male	female	male	Female	male	female	
5- Special Classes in Regular Schools	a) Blind Students			-	35			35
	b) Blind Adults			9	-			9
	c) Deaf Students			187	66			253
	d) Deaf Adults			15	-			15
	e) Hard of Hearing Students			47	39			86
	f) Mentally Retarded students (educable)			634	151			785
	g) Autistic Children			42	3			45
	h) Multi-Disabled Students			34	2			36
	Total of These Programs			968	296			1264
	Total Special`Class Programs			1006	308			1314
6- Resource Room Programs	a) Learning Disabled Students			715	503			1218
	b) Blind Students			1=3	-			153
	c) Hard of Hearing`Wtudents			11-	-			11
	d) Gifted & Talented Students			260	120			380
	Total of Resource Room Programs			1139	623			1762
7- Itinerant Teacher Programs	a) Hard of Hearing Students			6	-			6
	Total of Itinerant Teacher Programs			6	-			6
(8- Special Education Follow Up Programs	a) Low Vision Students			1	1			2
	b) Physically Disabled Students			1	-			1
	Total Follow-Up Programs			2	1			3
Grand Total		31	37	2153	932	84	2	3239

• *Remarks on Table (2) and the Programs Included:*

- 1- The numbers of resource room programs comes first, followed by self-contained classes. Then, come the institutes.

The number of resource room programs is still dramatically increasing. This means that special education service delivery models are moving toward the least restrictive environment.
- 2- Most of the self-contained classes serve groups which are being traditionally served in special education institutes. On this basis, the expansion of this type of service delivery models comes, in part, at the expense of the institutes, particularly the residential institutes wherein the number of students has been declining.
- 3- Students benefiting from special education services in regular schools outnumber those served in special education institutes.
- 4- No more new special education institutes have been established lately. However, the increase in the number of special education day institutes has resulted from two main reasons:
 - a) Some residential institutes were transformed into day schools.
 - b) Some multi-level institutes were transformed into more than one institute.
- 5- Programs for autistic children and those for the multi-disabled have been established in the form of self-contained classes in mental retardation institutes in a large number of cities in the Kingdom. It is anticipated for these programs to increase to cover more areas of the Kingdom in the following years. In the school year 2000/2001, the General Secretariat for Special Education began to establish these programs in regular schools instead of establishing them in mental retardation institutes. Moreover, the General Secretariat for Special Education is studying the possibility of providing special education services for autistic and multi-disabled children in more inclusive settings.
- 6- Although self-contained classroom programs in regular schools represent a less restrictive environment than that of the institutes, and despite the fact that these programs work to generalize special education services in all regions of our vastly extended Kingdom,

this service delivery model cannot, in any case, be considered as one of the full educational mainstreamed settings.

- 7- Besides serving disability groups which are traditionally served in special education institutes, resource room programs concentrate more intensively on serving disability groups originally found in regular schools, which are larger in number than those served in the institutes and centers.
- 8- Itinerant teacher programs in junior high schools were established in the school year 1996/1997 to serve hard of hearing students. These programs began to transform into teacher-consultant programs. The reason being that teachers in these programs were majoring in special education rather than prepared academically to be subject matter teachers.

Because of the importance and effectiveness of the itinerant teacher program and the teacher-consultant program, and since they represent more inclusive approaches, the General Secretariat for Special Education at the Ministry of Education is doing its utmost to make use of these programs in regular schools. This depends upon some variables such as the nature of disability, the nature of required services, the nature of the educational level, the nature of the geographical region, and other relevant variables.

- 9- Teachers working in resource room programs that serve disability groups of low incidence play the role of itinerant teachers in other schools in surrounding neighborhoods. This is to assist the students and their parents, as well as to solve the problem of transportation. This experiment was first implemented in the school year 1998/1999 to serve hard of hearing students in primary schools.
- 10- Although the number of students in special education follow-up programs for both low vision students and physically disabled students is larger than the number of students in any other program, special education services provided through these two programs are confined in the first program to diagnosis and evaluation of low vision students in regular schools, as well as providing them with visual aids.

As for the second program, the services do not exceed issuing decisions to facilitate the procedures of students' admission

into regular schools. Even the statistics and informatioo about these two programs have not been updated since the school year 1995/1996. Work is underway to develop these two programs to become more effective.

- 11- The diversity of special education services in the Kingdom proves that the education of children with special educational needs in our coundry has reached a very critical stage through which the best and most effective methods can be utilized. It should be emphasized that this diversity in providing special education services is a required necessity to fulfill the needs of all children with disabilities.

The Future Role of Special Education Institutes

The activation of the role of regular schools in the field of education for exceptional children does not, in any case, cancel the role of special education institutes, nor does it diminish their importance. These institutes have been playing a significant role in the education for students with disabilities in our country. However, international trends in educating children with special educational needs necessitate that these institutes should undertake other additional roles in the future. These roles can be summarized as follows:

- a) Establishing specialized programs in these institutes for children who can not be served in regular schools.
- b) Transforming these institutes into information and support centers that supply special education programs in regular schools with experiences, information, teaching methods, supplementary aids and services so as to enable these programs to fulfill their obligations towards students with special educational needs.
- c) Transforming these institutes into training centers where specialized in-service training courses are held for teachers, educational supervisors, and administrators. In addition, some simplified training courses for parents are provided.
- d) Establishing early intervention programs in these institutes with the purpose of taking care of children with special educational needs from birth to school age.
- e) Establishing training and rehabilitation programs in these institutes for persons with disabilities who need rehabilitation or special training in order to prepare them for proper jobs.

Difficulties Encountered by Mainstreaming

It is rare to embark upon a giant project as mainstreaming without difficulties. Some of these difficulties can be summarized as follows:

- 1- Apprehension of parents of students with special educational needs about mainstreaming.
- 2- Negative attitudes among some segments of society towards individuals with disabilities.
- 3- The inappropriateness of some public school buildings for the needs of all groups of children with disabilities.
- 4- The admission of some children who do not meet the conditions of enrollment in mainstreaming programs.

Fortunately, the above-mentioned difficulties are of the kind that can be tackled and overcome, as these difficulties do not result from incorrectness of the principle, or the track on which mainstreaming is based, but rather they are related directly to the process of implementation.

The Ministry of Education, through its short and long term plans, has dealt effectively with these difficulties. The Ministry, represented in the General Secretariat for Special Education did not initiate the mainstreaming project until it had completed all preparations for it. This entails thorough thinking, early planning, and setting up a strategy that includes educational objectives and mechanisms to overcome any obstacles as they arise.

As for parents' apprehensions concerning mainstreaming, this problem quickly vanishes when they see the impressive results of mainstreaming success.

Moreover, mainstreaming is considered to be the most effective method to overcome the second problem emanating from negative attitudes towards persons with disabilities. This is due to the fact that regular schools are the natural place for the development of accurate concepts about the potentialities and capabilities of all children; disabled and non-disabled alike. In this environment, all parties involved in the project will be able to improve their attitudes towards each other. On this basis, mainstreaming is viewed as the best educational tool for achieving social integration desired by the peoples of the world.

Regarding the problem of school buildings, the Ministry was cognizant of this problem at an early stage; therefore, the needs of students with disabilities have been incorporated within the specifications of the establishment of new buildings.

As for the existing buildings, the Ministry is striving to make some accommodations to meet the needs of students with special educational needs such as adjusting corridors and restrooms, etc.

The Document of Rules and Regulations for Special Education Institutes and Programs, issued in 2002, has set the framework governing the spatial, equipment, and human requirements needed for each category of students with special educational needs.

With regard to the admission of some children who do not meet the conditions of enrollment in special education mainstreaming programs, this problem appears to be more pronounced in the programs for the mentally retarded. This problem can be attributed to the following three main reasons:

- a) The conviction of some officials in special education that education is a right for all children with disabilities, regardless of the nature of their disability, or the level of its severity. It is also their belief that it is an obligation to help these children receive their education in the environment that enables them to stay with their parents.
- b) The tendency of some educators in the field of special education to believe that all children with disabilities have to be mainstreamed in regular education schools, or that children with disabilities who are

mainstreamed are better than those who are studying in segregated schools.

- c) The lack of supplementary, or alternative programs such as: vocational rehabilitation programs, social rehabilitation programs, and comprehensive rehabilitation programs in some provinces, cities, and villages of the Kingdom has made parents apply considerable pressure on schools that have mainstreaming programs to accept their sons and daughters. After the admission of their children in the schools, they begin to ask for services that these schools cannot provide, either because they do not have these support services, or because these services do not fall within the domain of their work.

The Ministry is working to deal with this problem through the following:

- a) The expansion of the establishment of support centers so that they can provide services such as speech therapy, behavior modification, physiotherapy, occupational therapy, audio and visual aids, etc.

In the academic year 2005/2006, the National Committee for Special Education, Ministry of Education, has prepared a document that regulates work in these centers.

- b) The coordination and collaboration with the Ministry of Social Affairs, and urging it to expand the provision of vocational rehabilitation services, social rehabilitation services, and comprehensive rehabilitation services throughout The Kingdom. It should be emphasized that such services are provided in accordance with modern global trends in the area of community-based rehabilitation and home care. It is also important to help individuals with disabilities to enroll in public vocational institutes and centers whenever possible. This is due to the fact that these approaches are the most effective ones to enable the community to achieve integration.
- c) Involving the private and charitable sectors in supporting mainstreaming programs through the coordination, cooperation, and collaboration with leading institutions in our country such as the Sultan bin Abdul-Aziz El-Saud Charitable Foundation, the Prince

Salman Center for Disability Research, the Disabled Children Association, and others.

- d) The articles of the Document of Rules and Regulations for Special Education Institutes and Programs concerning the conditions of students' admissions should be activated so that the benefit of mainstreaming programs can be achieved. The characteristics and needs of all students with disabilities must be taken into account.

Factors Contributing to the Success of Special Education in the Kingdom

Al-Mousa (2000) enumerated the most important factors that have contributed to the rapid growth of special education and the spread of its programs in Saudi Arabia. These factors can be summarized as follows:

- 1 - The Government of Saudi Arabia has been giving individuals with special needs unlimited care, attention, and support. This created a good social atmosphere, and formed a healthy environment for the development of special education all over the Kingdom.
- 2 - The Kingdom paid unprecedented attention to the development of its human resources. This is embodied in the words and deeds of the Kingdom's leaders who always emphasize the importance of investment in human development. Special education has not been an exception to this rule. Investment in human beings in this field has been effective, enabling special education to achieve its objectives. A large number of highly qualified Saudis have attended the most prestigious universities in the world. They returned home armed with science and knowledge in a fertile area, namely, the area of special education. Also, the Kingdom has always been keen to attract the best qualified individuals to work in the field of special education through financial and moral incentives.
- 3 - The Ministry of Education has enhanced the role of the General Secretariat for Special Education by providing it with specialists and basic requirements for the education of students with special educational needs.
- 4 - The General Secretariat for Special Education has recently adopted an educational strategy based mainly on the use of modern educational methods.

This strategy emphasizes the role of regular schools in educating children with disabilities, which means that more inclusive settings are being made available. This strategy has greatly contributed to the success of special education in the Kingdom, not only because mainstreaming has educational, psychological, and social benefits for children with special educational needs, but also

because educating these students in regular schools is more cost-effective than educating them in segregated schools (UNESCO, 2003, 2004; Walker & Ovington, 1998).

- 5 - The higher education sector, through its colleges and universities, has contributed to the rapid development of special education programs in the Kingdom. This was accomplished through opening the doors of the colleges and universities for students with special educational needs.

Furthermore, these higher education institutions have been active in the preparation and training of personnel to work with students with disabilities through specialized academic units. Among these units, the Department of Special Education at the College of Education, King Saud University has been standing out as a pioneering department in teacher preparation since its inception in 1984.

In addition to this department, there are other units such as:

- a) Division of Psychological Services for Exceptional Children at the Department of Psychology, College of Education, King Saud University.
- b) Health Rehabilitation Department at the College of Applied Medical Sciences, King Saud University.
- c) Department of Special Education at Teachers College in Jeddah.
- d) Department of Special Education at the College of Dar Al-Hikmah for Girls in Jeddah.
- e) Department of Special Education at the College of Education, King Faisal University.
- f) Department of Special Education at the College of Education, University of Taif.
- g) Department of Special Education at the College of Arabic Language and Social Studies, University of Al-Qassim.
- h) Department of Special Education at the College of Education, Taibah University.

Moreover, there are a number of diploma programs in special education at some other Saudi colleges and universities (Al-Mousa, 3005, 2008).

- 6- Scientific research through academic units, research centers, and professional periodicals, inside and outside of the universities has started to take its rightful place in different disability fields. This can be noticed through the efforts exerted to identify the incidence and prevalence of disability in the Kingdom, etiologies of its occurrence, prevention methods, ways of reducing its psychological and social impact, as well as proposing solutions, means, programs, and strategies that would serve to increase the effectiveness of special education in the Kingdom.

It is sufficient here to refer to the distinguished leading role played by the Prince Salman Center for Disability Research. This center is, indeed, a research and scientific source. It is striving to improve services provided for individuals with disabilities through its giant projects of which, for example, The Provision Code for Persons with Disabilities in the Kingdom, and The National Research Project for Studying Disability Among Children under the Age of Sixteen in the Kingdom.

- 7- The Kingdom has had a great interest in sponsoring many conferences, symposia, research seminars, and intellectual forums through which light is shed upon educational and rehabilitative issues in different areas of disability.
- 8- The Kingdom has taken firm steps to utilize assistive technology for the benefit of persons with special educational needs. This is reflected in the projects initiated by some concerned associations such as the establishment of computer centers and scientific laboratories equipped with the latest and state-of-the art technologies.
- 9- The private sector has had a growing role in the care of special groups. A number of associations, charitable organizations, schools, and educational programs have emerged to improve services provided for those groups. The Sultan bin Abdul-Aziz Al-Saud Charitable Foundation stands out at the forefront of the global

- humanitarian edifices in the areas of good deeds and development in general, and in the care of special groups in particular.
- 10- School boards in the Kingdom have achieved considerable success resulting in a marked increase in the effectiveness of family participation in the educational process.
 - 11- The National Committee for Special Education alongside specialized advisory committees in the Ministry of Education have contributed to the enhancement of special education services. Their contributions are exemplified in the development of programs, curricula, and academic plans, as well as preparation of proposals, scenarios, and theses concerning issues related to children with special educational needs (The National Committee for Special Education, 2006).

Evaluation of the Mainstreaming Experience in Saudi Arabia

There have always been serious attempts to conduct scientific studies to identify the impact of the educational environment (mainstreamed settings versus segregated settings) on certain variables such as: academic achievement, social skills, adaptive behavior, self-concept, and other relevant variables.

In this respect, Al-Mousa et al. (2008) conducted a national study entitled "The National Study to Evaluate the Experience of the Kingdom of Saudi Arabia in Mainstreaming Students With Special Educational Needs in Public Schools." This study aimed at identifying the following:

- 1- The status of mainstreaming programs in regular education schools in the Kingdom.
- 2- The effect of the educational environment (mainstreamed settings versus segregated settings) on the academic achievement, adaptive behavior, and self concept of students with special educational needs.
- 3- The attitudes of personnel in regular education schools and in special education institutes, and the attitudes of normal students and their exceptional peers, as well as their parents toward mainstreaming.
- 4- The positive and negative impact of mainstreaming on both home and school environments in the Kingdom.

This process of evaluation includes the three aspects on which the expansion in the implementation of the mainstreaming concept is based. These three aspects are:

- a) Geographical Aspect:
(*since mainstreaming has been implemented all over the Kingdom*).
- b) Type of Disability Aspect:

(since mainstreaming includes all types of disabilities which, at the present time, are benefiting from special education services in the Kingdom).

c) Service Delivery Model Aspect:

(since special education services are provided for exceptional students in regular education schools through special education service delivery models, such as special classes, resource room programs, itinerant teacher programs, and teacher-consultant programs).

The study has targeted both sexes. The number of participants was 23,173 males and females representing three main categories. These include 15,979 education personnel, 5,159 students, and 2,035 parents.

The population was distributed over the following four service delivery models:

- a) 8,839 individuals in mainstreaming programs in regular schools.
- b) 4,047 individuals from those who are not special education personnel in regular schools that have mainstreaming programs.
- c) 5,611 individuals in regular schools that do not have mainstreaming programs.
- d) 4,676 individuals in special education institutes.

The study was guided by 29 hypotheses that have been tested through data and information collected by the study instruments which included several measurement scales, achievement tests, adaptive behavior scales, and self-concept scales.

The findings of the study have revealed the following:

- 1- The alternative hypotheses concerning the evaluation of the status of mainstreaming programs have been accepted, as the findings have indicated statistically significant differences between the frequencies of the responses of personnel in mainstreaming programs in all the scale items in favor of those who have seen that:
 - a) Spatial requirements of mainstreaming programs are appropriate and utilized very effectively.

- b) Equipment requirements and human resources in these programs are sufficient, appropriate, and utilized very effectively.
 - c) Cooperation, interaction, and integration of these programs with the schools are well accomplished.
- 2- The null hypotheses concerning variables related to the evaluation of the status of mainstreaming programs have been rejected, as the findings have indicated statistically significant differences according to sex, nature of work, and type of disability.
- 3- The null hypotheses concerning academic achievement have been investigated through 25 achievement tests, constituting a frequency of 53 statistical results. Of these, there were 25 results for boys and 14 for girls; since comparison between female students in the institutes and female students in mainstreaming programs was not available for the latter did not exist for some disability types at some educational levels in some educational regions. In addition, 14 statistical results were for the total population of both males and females.

The frequency of the results of statistically significant differences has reached 23 results. 21 of these were in favor of male and female students in mainstreaming programs; while two results only were in favor of male and female students in the institutes. In the other 30 results, the differences among the means were not statistically significant.

- 4- As for the hypotheses concerning adaptive behavior, the hypothesis concerning autistic students has been rejected, as the findings have indicated statistically significant differences in favor of autistic students in mainstreaming programs to their peers in the institutes. On the other hand, the hypothesis concerning multi-disabled students has been accepted, as the findings have shown no statistically significant differences between multi-disabled students in mainstreaming programs and their peers in the institutes.

As for the hypothesis concerning mentally retarded male and female students, it has been partially rejected, as the findings have indicated statistically significant differences in favor of mentally retarded male students and of the total population of males and females in mainstreaming programs to those in the institutes. At the

same time, this hypothesis has been partially accepted in only one case, as the findings have indicated no statistically significant differences between mentally retarded female students in mainstreaming programs and their peers in the institutes.

- 5- As for the two hypotheses concerning self-concept, the hypothesis regarding deaf students has been rejected, as the findings have indicated statistically significant differences for male students in the total score of the scale and in all its areas in favor of students in the institutes to their peers in mainstreaming programs, except for the general appearance. The findings have also indicated statistically significant differences for female students in the total score of the scale, as well as the area of anxiety, in favor of female students in mainstreaming programs to their peers in the institutes. As for the total population of both sexes, the findings were in favor of those in the institutes to their peers in mainstreaming programs.

Regarding the hypothesis concerning blind students, it has been generally accepted, as the findings have shown no statistically significant differences for male and female students, as well as for the total population of both sexes. In all the areas of the scale, and in the total score, except in the case of the total population of both sexes in the area of anxiety, there were statistically significant differences in favor of mainstreaming programs to the institutes.

- 6- The hypothesis concerning attitudes towards mainstreaming has been rejected, as the findings have indicated statistically significant differences in the attitudes of education personnel, parents, and students toward mainstreaming, in favor of education personnel and parents to students.
- 7- The hypothesis concerning variables related to the attitudes of education personnel toward mainstreaming has been rejected, as the findings have indicated statistically significant differences in the attitudes of education personnel working with normal and exceptional students in regular schools and special education institutes according to sex, nature of work, service delivery model, and type of disability, with the exception of the academic performance area in the first variable.

- 8- The hypothesis concerning variables related to the attitudes of parents toward mainstreaming has been partially accepted, as the findings have shown no statistically significant differences in the sex variable. At the same time, it has been partially rejected, as the findings have indicated statistically significant differences in the variables of service delivery model and type of disability.
- 9- The hypothesis concerning variables related to the attitudes of students toward mainstreaming has been partially accepted, as the findings have shown no statistically significant differences in the two variables of disability type and sex, except for the type of disability area. At the same time, it has been partially rejected, as the findings have indicated statistically significant differences in the variable of service delivery model in favor of students in mainstreaming programs to students in special education institutes and those in regular schools that do not have mainstreaming programs in all areas of the scale and in the total score.
- 10- The hypothesis concerning the positive and negative effects of mainstreaming has been partially accepted, as the findings have shown no statistically significant differences in the area of psychological effects and in the total score. At the same time, it has been partially rejected, as the findings have indicated statistically significant differences among education personnel, parents, and students in the other areas.
- 11- The hypothesis concerning variables related to the positive and negative effects on education personnel in regular schools that have mainstreaming programs, has been rejected, as the findings have indicated statistically significant differences according to sex, service delivery model, and type of disability, except for the academic effects in the first variable.
- 12- The hypothesis concerning variables related to the positive and negative effects on parents if students in regular schools that have mainstreaming programs, has been partially accepted, as the findings have shown no statistically significant differences in the two variables of sex and service delivery model, with the exception of the area of social effects. At the same time, it has been partially rejected, as the findings have indicated statistically significant

differences in the variable of disability type in favor of parents of mentally retarded students to parents of regular students in all areas and in the total score of the scale.

- 13- The hypothesis concerning variables related to the positive and negative effects on students in regular schools that have mainstreaming programs, has been accepted, as the findings have shown no statistically significant differences, except for the academic effects in the sex variable, and psychological effects and social effects in the disability type variable.

In addition, the findings of the study have identified positive and negative effects of mainstreaming. It has also been indicated that the positive effects have greatly surpassed the negative ones.

More importantly, the findings have revealed that the shortcomings or limitations, which can be found in mainstreaming programs, are a direct result of the implication process. They have nothing to do with the fundamental foundations of mainstreaming. This means that they can be tackled and overcome.

The study has concluded with some educational and research recommendations that ought to be utilized.

In any case, the evaluation process of special education programs in regular schools relies heavily on the reports of field tours that are conducted regularly by educational supervisors in the Ministry of Education. These reports provide detailed information such as:

- 1- The nature of work in programs.
 - 2- Strengths and weaknesses in the programs.
 - 3- Problems facing the programs. •
- 4- Recommendations, suggestions, and appropriate solutions.

It is highly worth mentioning here that the purpose of the evaluation process of mainstreaming programs in the Kingdom is to improve special

education services, not to judge the experience of mainstreaming as a success, or a failure. We see mainstreaming as an inevitable necessity, as it provides us with a very flexible educational mechanism that enables us to fulfill the needs of all exceptional children in the Kingdom.

Recommendations

A quick look at the experience of Saudi Arabia in mainstreaming indicates very clearly and unequivocally that the Kingdom has achieved, through that experience, great educational gains for students with special educational needs.

The following is a brief extract of some of the recommendations in this area:

- 1- The Ministry of Education should continue in the expansion of mainstreaming programs in the Kingdom, as mainstreaming has proven to be the most effective educational means to provide special education programs for students with special educational needs provided that it is carried out in accordance with specific, clear, and scientific measures.
- 2- It is important to benefit from the results of research projects conducted in the various educational fields of mainstreaming. Further research projects in this area are needed in order to determine the influence of the two environments, (i.e. segregation versus integration on home, school, and the community), as well as to identify the most effective special education service delivery models for educating exceptional students.
- 3- The experience of the Ministry of Education in mainstreaming children with special educational needs in regular schools should be generalized to all governmental, private and charitable services inside and outside of the Kingdom to enable neighboring states to benefit from this experience.
- 4- The role of special education institutes should be enhanced to enable them to perform their tasks in light of modern educational trends.

- These institutes must play a complementary role to that of regular education schools instead of being a substitute for them.
- 5- The administrative representation of the General Secretariat for Special Education at the Ministry of Education should be empowered to meet the requirements of this significant expansion in the educational field.
 - 6- More special education units in educational directorates should be established. Their role in following up and supervising special education programs should also be enhanced to meet the rapid growth of these programs throughout the Kingdom.
 - 7- More personnel preparation departments should be established in Saudi colleges and universities to graduate qualified teachers capable of dealing with students with special educational needs. This would address the problem of scarcity of professionals, which is one of the major problems facing special education in the entire Arab world.
 - 8- The use of assistive technology for students with disabilities should be emphasized for it is the most important means that enables them to overcome the obstacles emanating from their disability. This eventually would lead to their integration in school and community.
 - 9- The role of the mass media should be enhanced to raise awareness of special education and its role as an instrumental means in alleviating some of the problems facing students in public schools. Such problems include: low academic achievement, failure, retention, and dropout. A particular focus should be placed on the dissemination of community awareness of the importance and effectiveness of mainstreaming as the most practical tool through which special education programs can be implemented in accordance with the modern comprehensive concept of special education.

Conclusion

As noted, the term "Mainstreaming" was used throughout this book to reflect special education practices in the Kingdom of Saudi Arabia at the present time.

Concerted efforts are made to promote a more inclusive education system in the Kingdom. It is our belief that "Inclusive Education" is the guiding principle to achieve the ultimate goals of "Education for All."

Our present policy requires our educational system to have a continuum of alternative placements, extending from the regular education classroom to residential settings. This continuum concept would make it possible for our schools to accommodate all children with disabilities. It will also make it more likely that each child would be placed appropriately in an environment that is specifically suited to meet his/her needs, interests, and aspirations.

Finally, it should be emphasized that the decisions regarding educational placements for children with special educational needs should be driven by variables such as the child's educational needs, nature of disability, severity of disability, etc, and not by administrative convenience.

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