



A. A. ELDAMATTY



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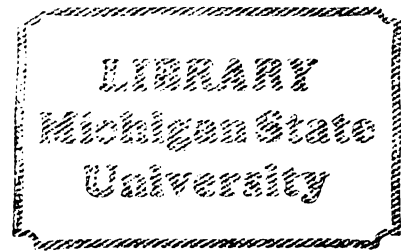
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dissertation entitled

A descriptive and demographic analysis of educable
mentally retarded graduates of the Mataria Center
in Egypt and perceptions of competencies, knowledge,
and skills required for independent living. A
need assessment study,

presented by

Abdul Ghaffar Abdul Hakim Eldamatty

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Counseling, Educational
Psychology and Special Education

A handwritten signature in cursive script, reading "Charles V. Mange".

Major professor

Dr. Charles V. Mange

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A DESCRIPTIVE AND DEMOGRAPHIC ANALYSIS OF EDUCABLE MENTALLY
RETARDED GRADUATES OF THE MATARIA CENTER IN EGYPT AND
PERCEPTIONS OF COMPETENCIES, KNOWLEDGE, AND SKILLS
REQUIRED FOR INDEPENDENT LIVING:
A NEED-ASSESSMENT STUDY

By

Abdul Ghaffar Abdul Hakim Eldamatty

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

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and Special Education

1984

ABSTRACT

A DESCRIPTIVE AND DEMOGRAPHIC ANALYSIS OF EDUCABLE MENTALLY
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This study was conducted primarily to gather socio-demographic information regarding a selected group of educable retardates who graduated from the Mataria Center of Egypt between 1976 and 1980 and to describe their independent living status. It also attempted to determine the independent living competencies needed by educable mentally retarded in Egypt and the impact the Mataria program had on developing these competencies in its "graduates."

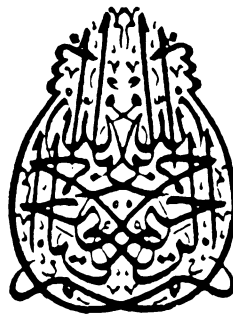
Fifty "graduates" were randomly selected and equally divided into two groups. The subjects' parents represented them in interviews conducted for collecting data. The Mataria Center professionals also participated in this study, comprising a third group.

A four-part instrument was used in this study. Parts I and II were used in collecting socio-demographic, vocational, marital, economic, and living data regarding the 50 subjects. Part One of the AAMD Adaptive Behavior Scale (ABS) comprised Part III and was used in

rating independent competencies of group one of the subjects. Part IV consisted of two forms, A and B, on which both the parents of group two and Mataria professionals were asked to specify, on a six-point scale, the perceived importance of 78 competency statements for independent living. Also on Form A, parents of group two rated the Mataria program's impact on the development of these competencies in their children. Descriptive statistics were used in analyzing the data.

The following major findings were reported: The "graduates" were primarily male, living in Cairo, mostly identified as mentally retarded during elementary education where special education was provided for few of them, and came mostly from economically and educationally deprived backgrounds. A very large majority of them were employed, earning a good income, single, and living with their parents. Their independent living competencies were mostly of high to above-average mastery and comparable to those of the American norm. Parents and professionals perceived independent living competencies, included in Part I of the AAMD-ABS, as important for educable retardates' independence in Egyptian society. The Mataria program had little impact on the development of these competencies, as perceived by parents. Recommendations to improve the effectiveness of Egyptian habilitative programs for mentally retarded and implications for further research were reported.





**IN THE NAME OF ALLAH
THE MERCIFUL THE COMPASSIONATE**



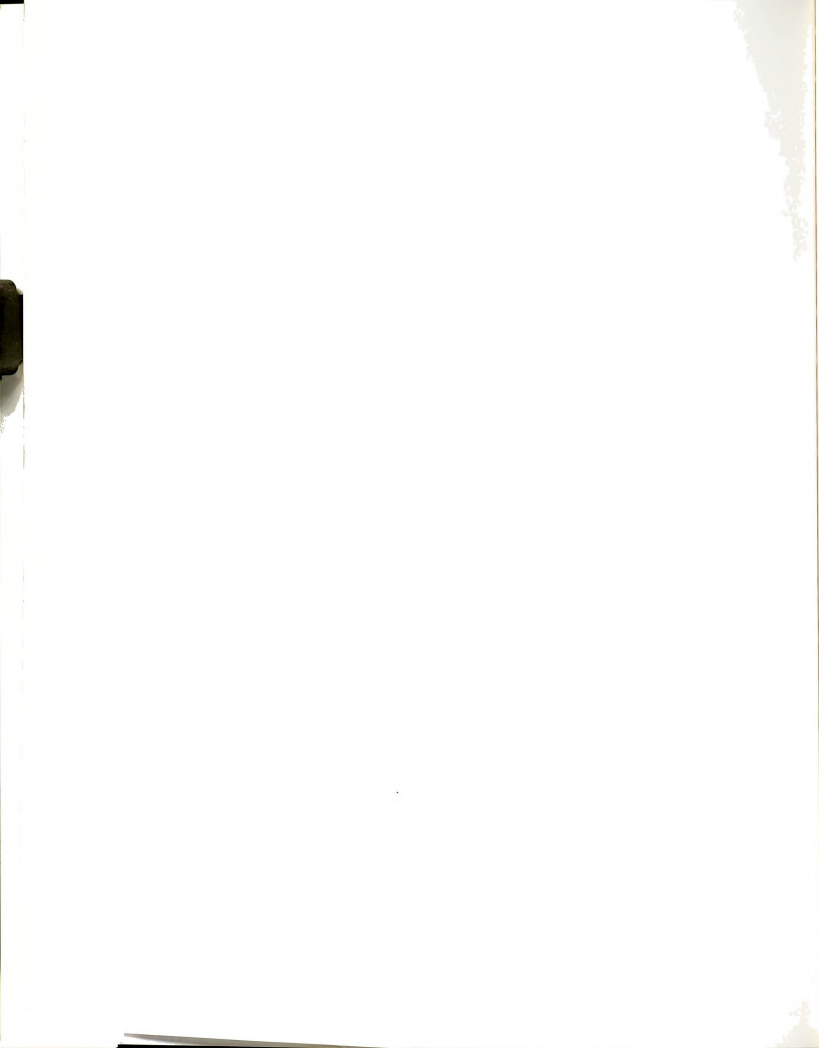
This work is fully dedicated to Allah (God), glory be to Him, who has been, is, and will continue to be giving me strength and guidance through the light of His countenance, and to the soul of my father, who was destined to die at the very last moment of my completing this study.



ACKNOWLEDGMENTS

It is not possible to credit all who have contributed to the accomplishment of this study. In expressing appreciation and recognizing the contributions of many, I would like to give particular recognition to my wife, Zeinab, who has sacrificed her job, personal convenience, and many precious things in her life to support me throughout my program at Michigan State University, and to my daughters, Suzanne and Eman, and my lovely son Waleed, who have patiently endured my long absence and separation from them while I was working on this study.

I most gratefully acknowledge and appreciate the loyal support provided by Dr. Charles V. Mange, my major advisor and committee chairman, without whose steady wisdom and valuable guidance my entire program at MSU would not have been possible. Dr. Linda A. Patriarca, a special professor, committee member, and friend, has provided me with confidence, inspiration, encouragement, knowledge, and guidance throughout my entire doctoral program at MSU. The other members of my committee, Dr. Donald A. Burke; Dr. William D. Frey; Dr. James E. Keller, who retired before the completion of this study; and Dr. Robert L. Ebel, may his soul rest in peace, who was destined to die before the completion of this study, made unique contributions by their example, advice, and teaching throughout my program.



The other faculty members of the Counseling, Educational Psychology, and Special Education Department, especially Dr. Ronald M. Wolthuys, Professor Vivian Stevenson, Dr. Harvey F. Clarizio, Dr. Stephen L. Yelon, and Dr. Richard Houang, are special people I have come to know as personifications of the "helping professionals."

Special thanks and gratitude are extended to Dr. Jeanne E. Gullahorn, Associate Dean of the Graduate School, and Dr. Andrew Porter, Assistant Dean of the College of Education, for their valuable moral and financial support provided for the completion of this study.

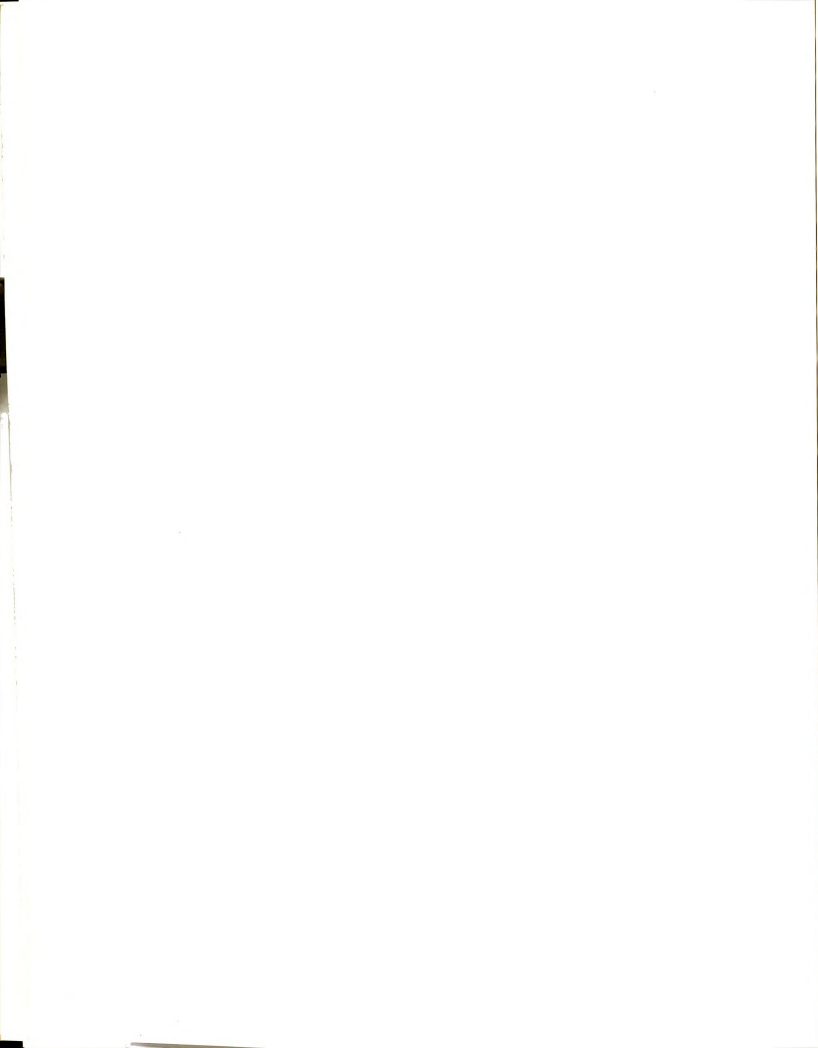
I take this opportunity to extend my thanks and appreciation to Dr. Mohamed Mohrous Mohamed, Assistant Professor and Former Director of the Egyptian Institute for Program Evaluation, for his great help in launching this project and facilitating the collection of its data by the Institute's research team.

Thanks are due to the many people who took time to help in completing this study, especially Andrew Davidson and Steve Howard, who have assisted me in various ways, and Susan Cooley, who patiently and neatly typed my dissertation under very difficult time constraints.

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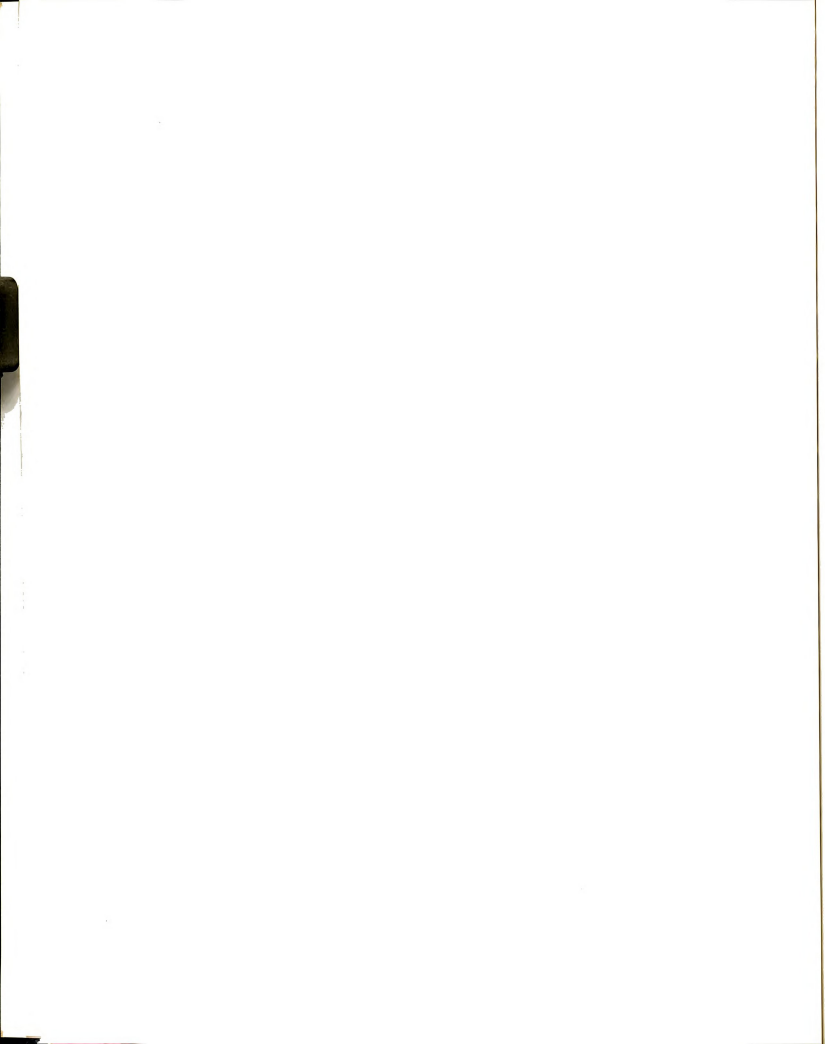
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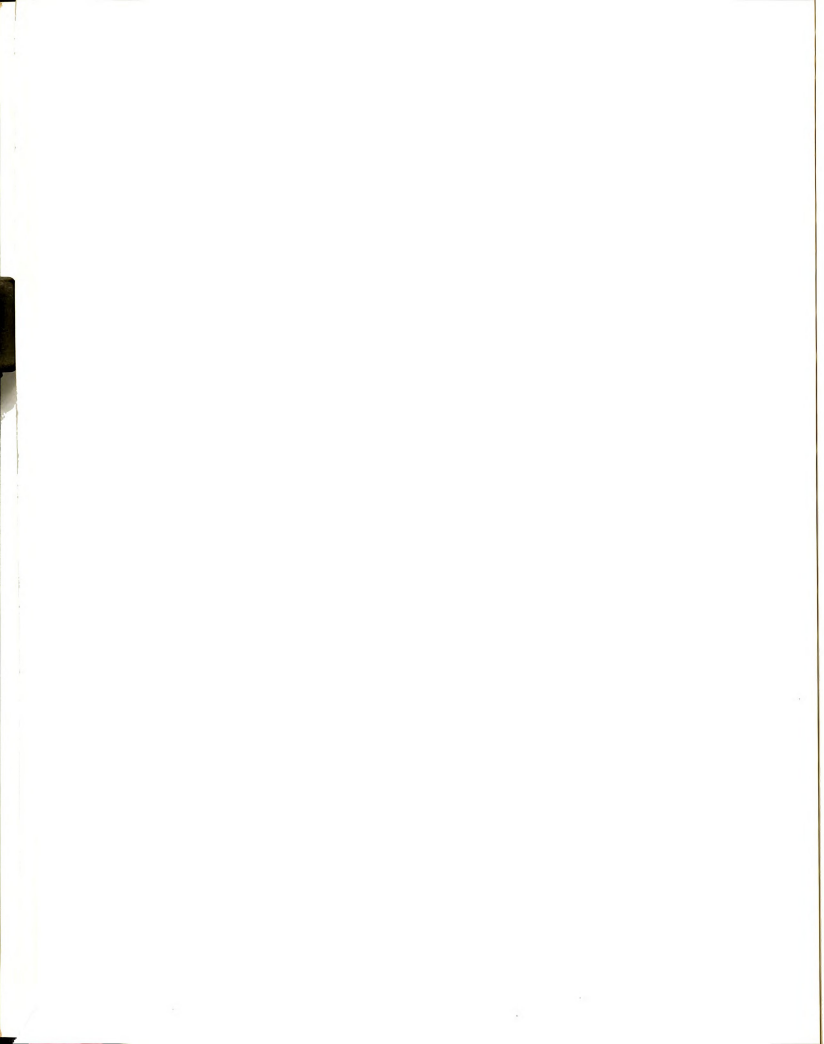
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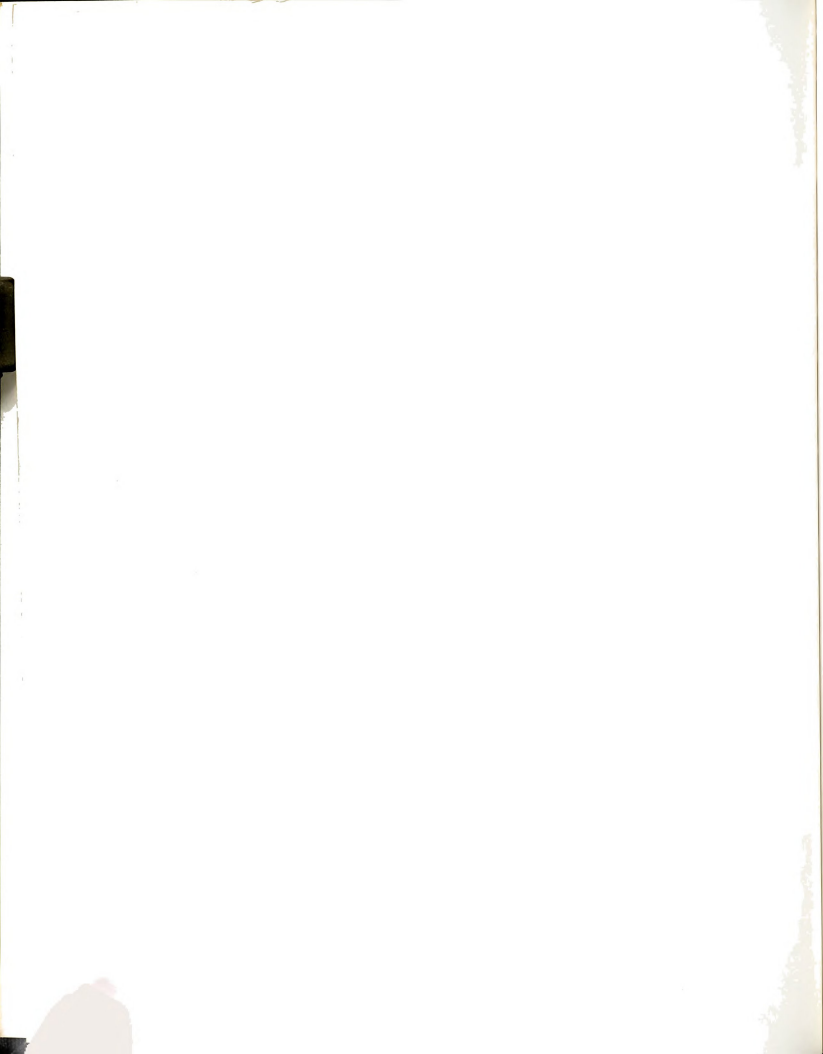


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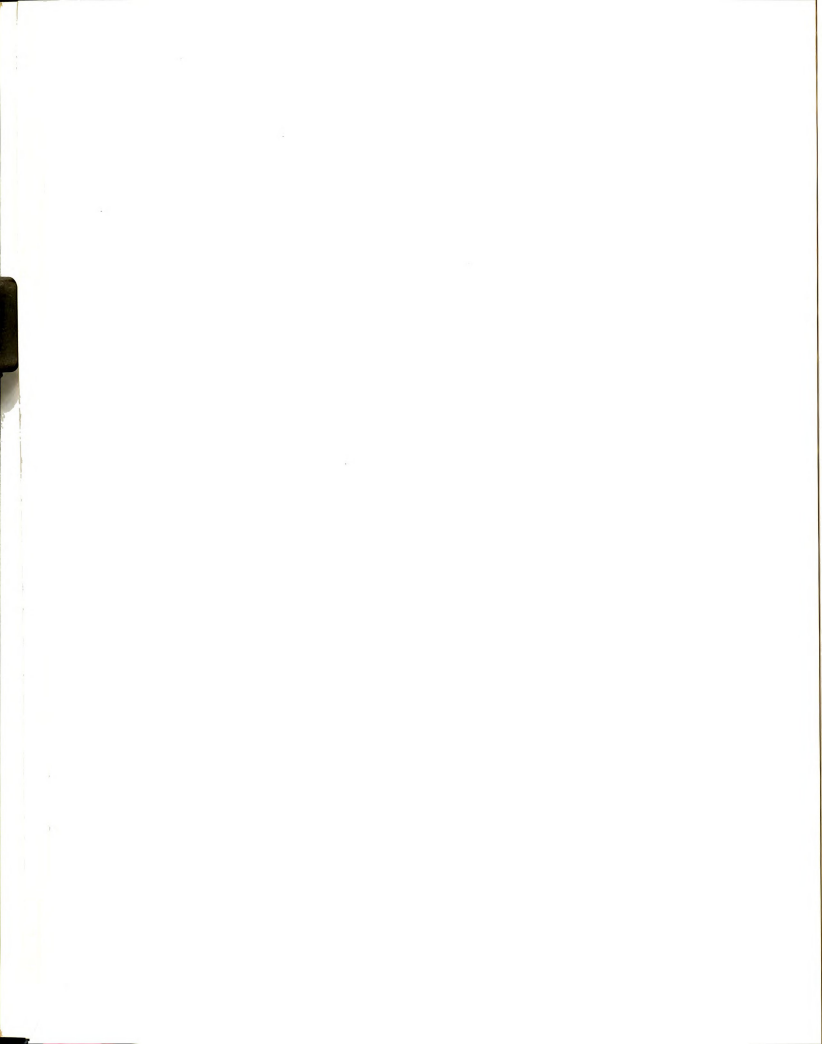
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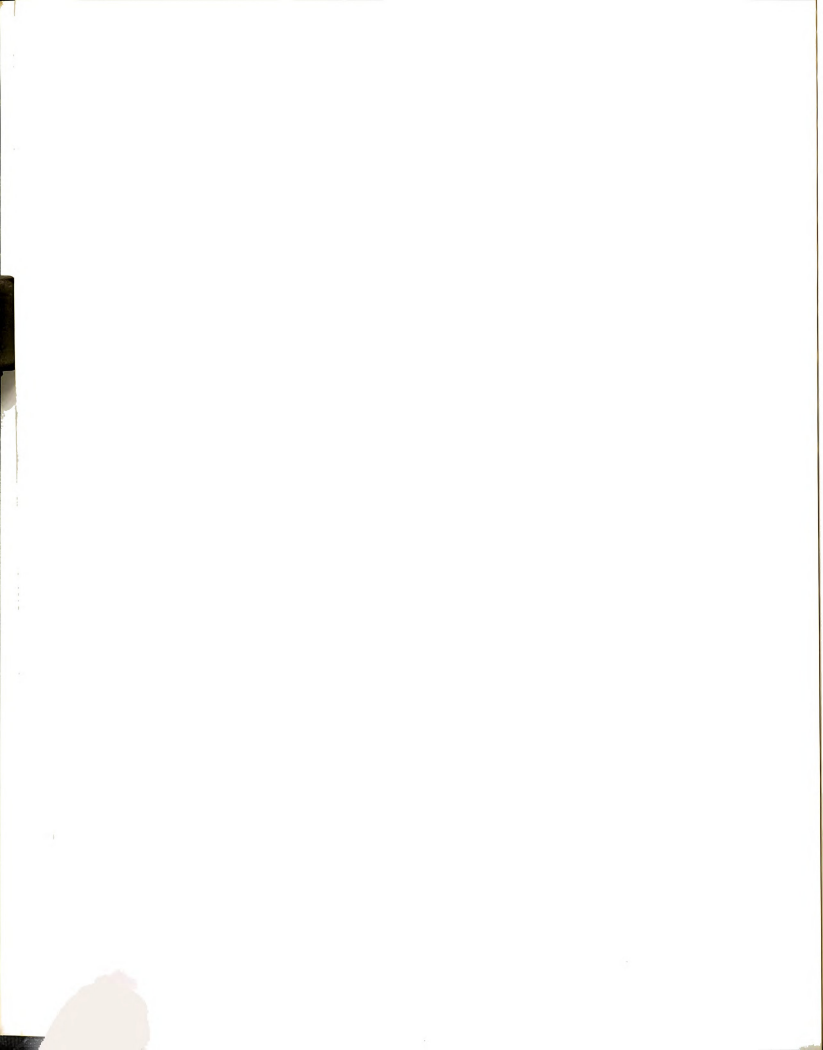
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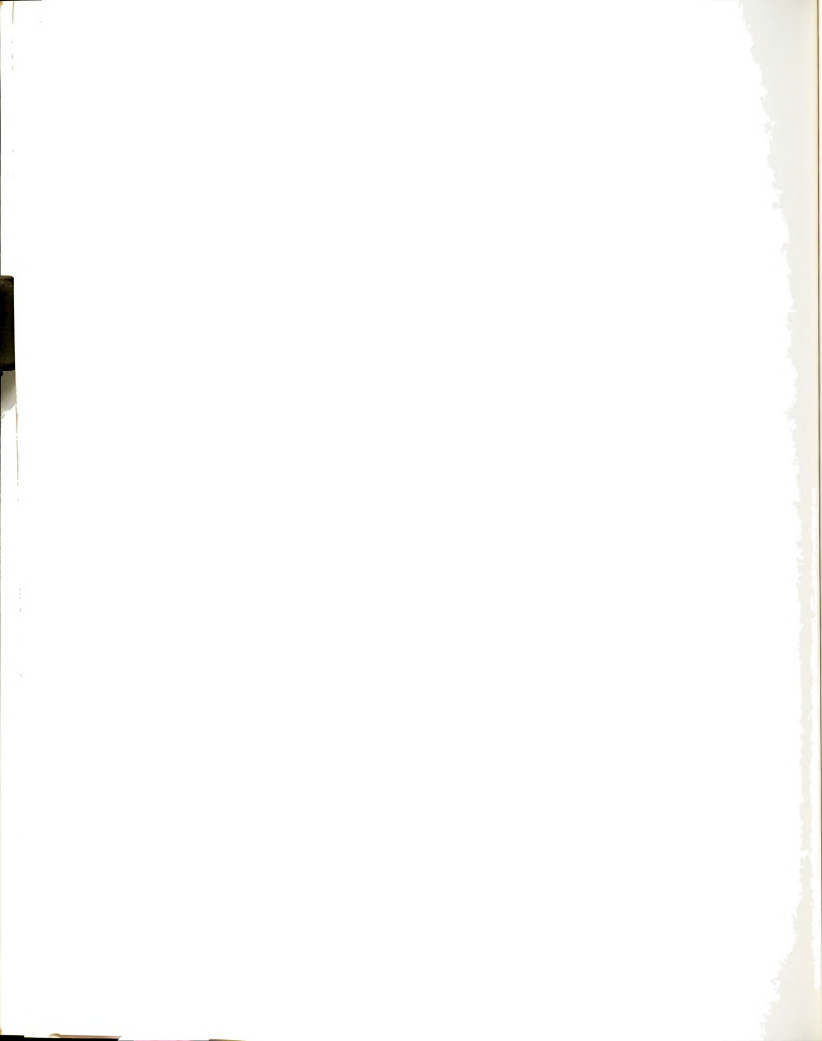


CHAPTER I

INTRODUCTION

Mental retardation in its various degrees of severity is one of the most common disabilities for which special educational help is needed. Any teacher must have confronted pupils whose capacity to learn is well below that of average children. Most people know of some family in which there is a mentally handicapped child. Among children with physical and sensory handicaps, low intelligence is a common additional disability and many multi-handicapped children tend to be rather severely mentally retarded. The need to understand the nature of mental retardation and to evolve effective educational programs is an important one.

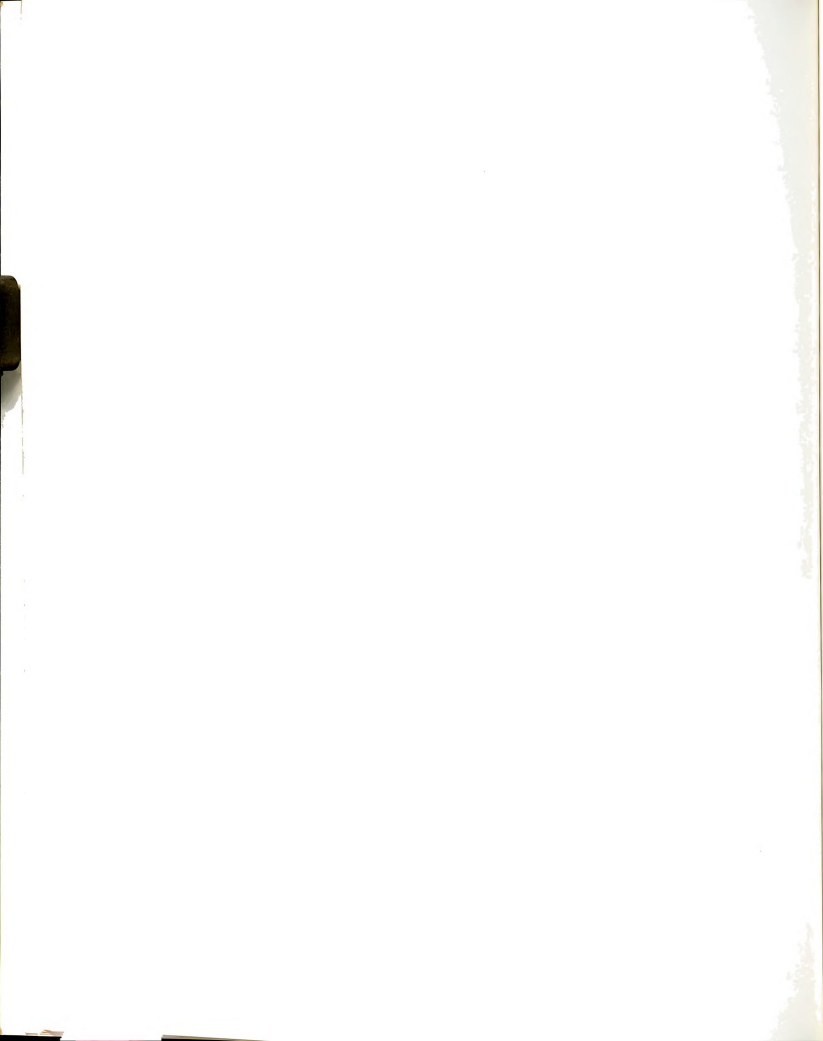
There has been a considerable change in past attitudes toward the problem of mental retardation. While attention was given to deaf and blind children early in the history of special education, and while there was always an optimistic belief that special methods could contribute much to overcoming visual and hearing impairments, such was not the case for the mentally handicapped: it was thought that education and training were of limited worth in improving their condition. For the first half of the twentieth century, care for the mentally retarded tended to be custodial, and even special schooling



was limited in goal and scope by the feeling that great improvement could not be expected (Perske, 1972; Gulliford, 1973; Scheerenberger, 1983; Bank-Mikkelsen, 1978).

One result of this earlier philosophy was that, apart from a few devoted pioneers, there was a shortage of professionals interested in research and in experimental methods of treatment. The Second World War, however, reversed this unfortunate situation. A considerable amount of medical research into the causes of mental retardation has been conducted, and now some of the causes are better understood; in some instances, disability can be prevented, others can be treated, and the research for still more causes and treatment continues. Research by psychologists, furthermore, has contributed to improving the attitude toward the capacity of subnormal individuals to learn and to work. Their limitations of thinking, language, and learning have been researched, and tentative findings which have implications for methods of educating them have been established. The educational and social aims of teaching for the mentally retarded have become clearer (MacMillan, 1977; Ingalls, 1978; Scheerenberger, 1983).

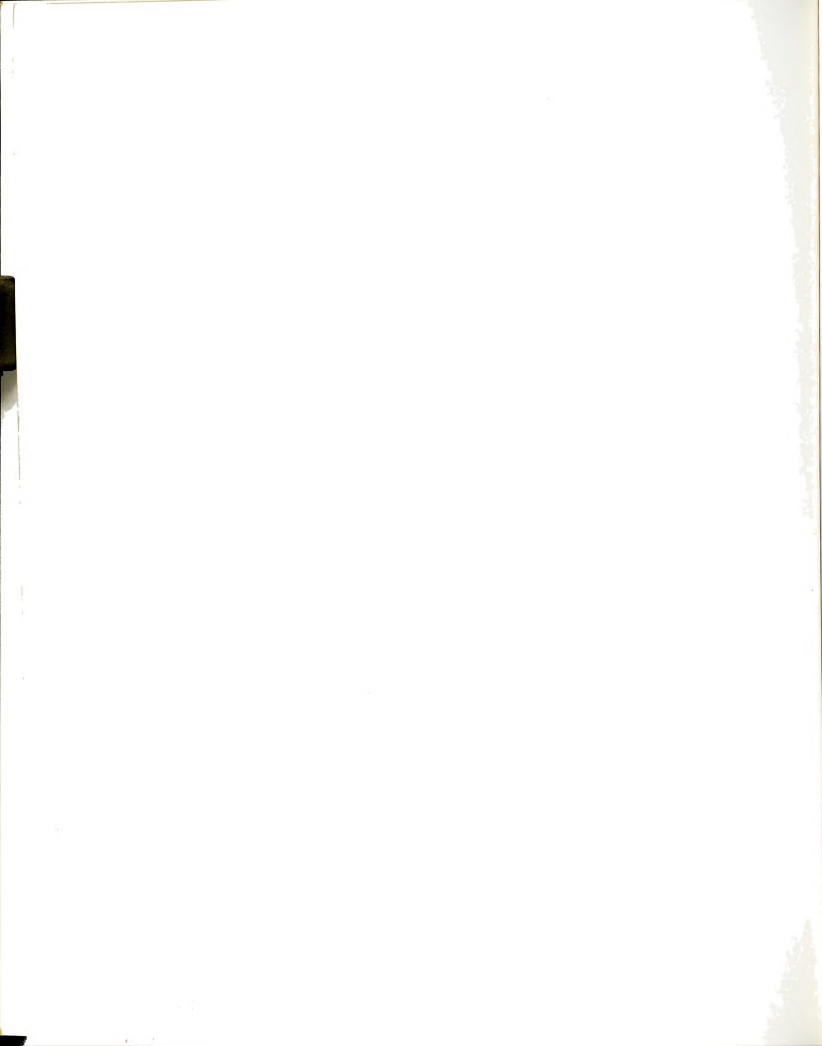
This progress has not come a moment too soon. Low mental ability necessarily entails social handicaps. Rapid development and changes in contemporary society increase the burden of disability. For a minimal adjustment to living and working in modern communities, the educational skills and degree of social competence required are greater than those of urban, and even more of rural, life 50 years ago. There are fewer unskilled jobs. Many jobs that used to be thought suitable for the



least intelligent now require skills and adaptability. For those who marry and raise a family, greater complexities ensue, especially when a large family and low income are combined, allowing no room for error or incompetence. The organization and methods of educating the mentally retarded in schools are matters that can neither be approached casually nor remedied without careful planning. A clear-cut assessment of the present educational potentialities of the mentally retarded and of their future social needs must be made.

Technical and organizational changes in societies are inevitably accompanied by changes in attitudes which affect working with the mentally retarded. As society develops higher levels of education and progresses to more advanced stages, it is less willing to maintain customary methods of care as a long-term solution for the mentally retarded, and superior strategies for dealing with them need to be elaborated. In the meantime, more flexible attitudes toward human differences, greater optimism over the improvement of abilities, and greater awareness of social and group influences on learning lead society to challenge many customary methods of organizing education.

From a variety of viewpoints, therefore, new directions in the policies and educational provisions for the mentally retarded are being forged, and the need to evaluate the efficiency as well as the effectiveness of current educational programs has become imperative.



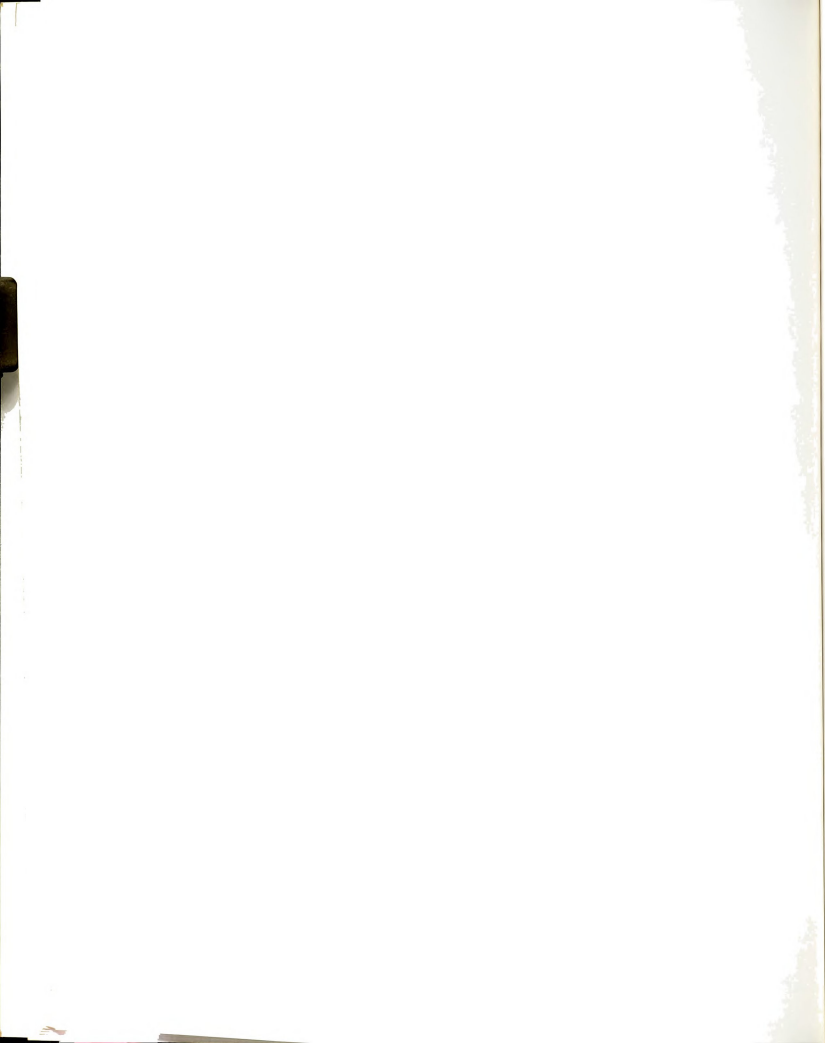
The Educational and Rehabilitation Systems for
the Mentally Retarded in Egypt

Historical View

Under the influence of the ideals of modern scientific progress, many countries have radically revised their policies toward the mentally retarded. As a new era began in the field of social rehabilitation and special education in Egypt, greater concern for the mentally retarded was shown, and the stereotypes about their potentialities underwent revision.

The means of caring and providing for the mentally retarded in Egypt did not come all at once. At the National Conference on the Welfare for the Disabled held in 1956, a recommendation was issued that called for the establishment of a program for the care of the mentally retarded. Two years later the Ministry of Social Affairs initiated a very modest program at Kobbah in Cairo. This program was merely the first step toward a more sophisticated program. In 1965, the Department of Rehabilitation for the Handicapped addressed itself with vigor to the problem of mental retardation. The following steps were taken:

1. A comprehensive rehabilitation scheme was developed to face the problem of mental retardation.
2. The existing facilities were classified by function as elements in an integrated program.
3. Professionals in the field were called upon to contribute to the advancement of the services.
4. A sample survey to determine the size of the problem was designed.



5. A plan for the establishment of new facilities was prepared (El Hommosani & Mohamad, 1979).

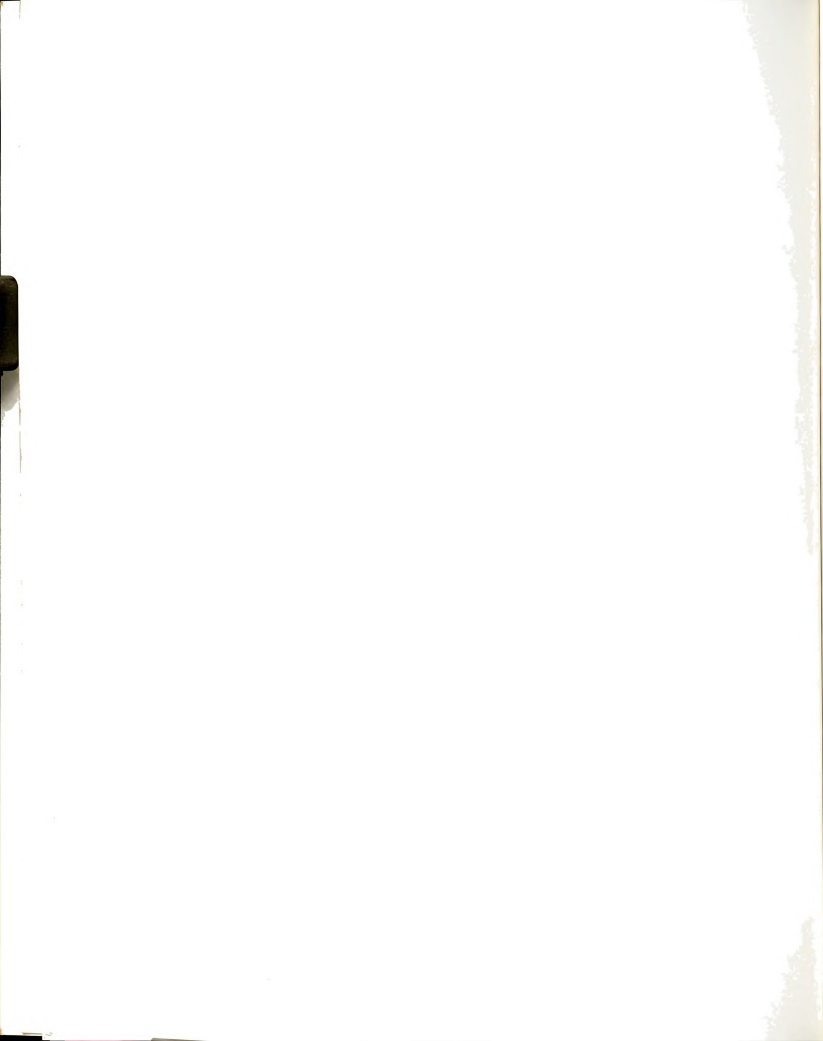
These steps led to an enlightened view of the problem and of the efficiency with which local and international resources could deal with it.

In 1966, a cooperative research program was launched, funded by a grant from the Rehabilitation Services Administration of the United States Department of Health, Education and Welfare, with two principal tasks:

1. identifying the dimension of mental retardation as a social, economic, and educational problem;
2. identifying different aspects of the potential for the habilitation and education of the mentally retarded.

The research continued for five years and the results pointed to an urgent need for the establishment of a demonstration research and training rehabilitation center for the mentally retarded. It also determined that the mentally retarded can be more easily integrated into society if their needs for special education and rehabilitation are met on a regular basis.

By the middle of 1972, these efforts culminated in the establishment of a comprehensive center for training and research, created by and put under the auspices of the Intellectual Development Association. The Mataria Center in Cairo was built, encompassing an area of 17,000 square meters. Opened and fully operational in 1973, it began a new era in the habilitation of the mentally retarded in Egypt



(El Hommossani & Mohamad, 1979). In the meantime, a plan was devised to cover all the Governorates of Egypt with services for the training of mentally retarded within the next ten years.

Since the establishment of the Mataria Center, rehabilitation legislation has been changed several times, resulting in the enactment of the Law of Rehabilitation of 1975. This law formalized the following innovations:

1. A supreme council for rehabilitation on the national level with representatives from different concerned governmental bodies and interested individuals.

2. A 5% quota for the employment of the disabled in those enterprises that employ 25 workers or more.

In addition, the same law established the right to rehabilitation for all disabled persons who meet the definition of disability, i.e., any person who has had physical or mental limitation either since birth or acquired at any time through life and who has never been employed or who quit his job because of his limitation (Mohamad, 1982).

Current Services for the Mentally Retarded

Services for the mentally retarded are provided through facilities affiliated with either the Ministry of Education or the Ministry of Social Affairs.

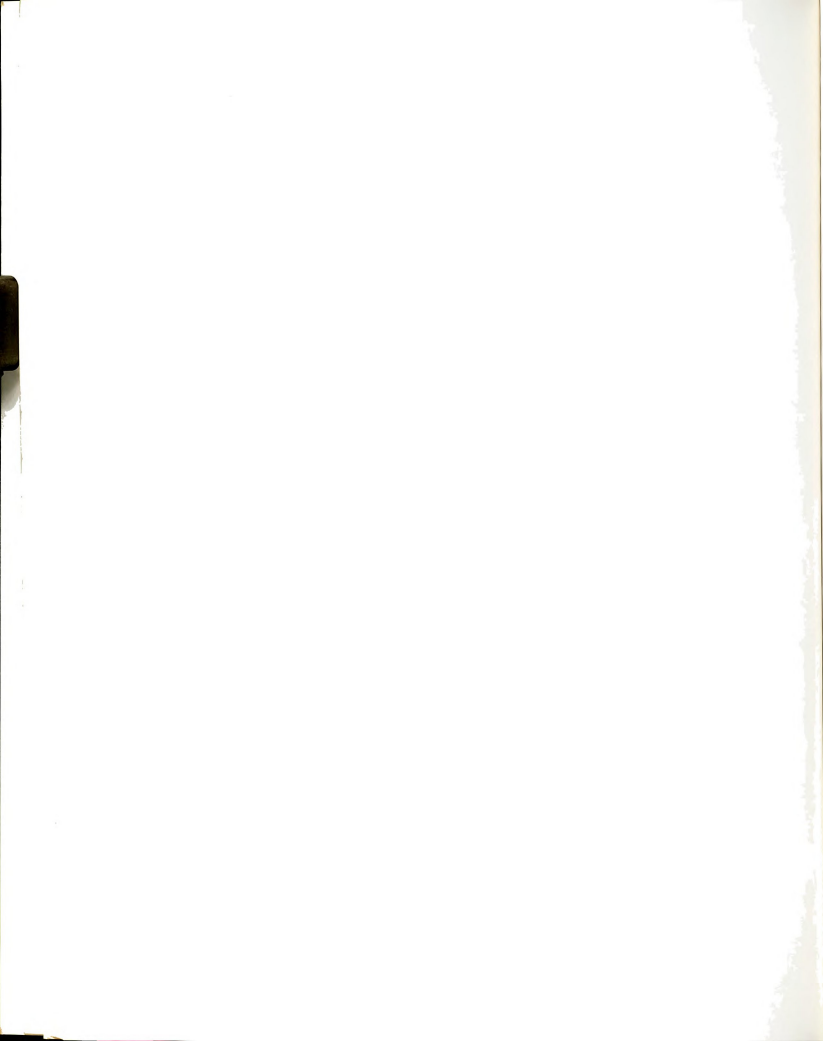
1. Special education is under the supervision of the Special Education Department in the Ministry of Education. The mildly retarded children who are identified at an early age are liable for compulsory



schooling insofar as there are special education services in their locality. However, those who are identified at school age or during school years are referred for services according to the availability of either special classes or special schools in their locality as well. The identification process at the school age may occur as a result of a complete medical and psychological evaluation undertaken by the School Hygiene Department once a child is admitted to school. During school years, the identification may occur as a result of a teacher's observation or a school psychologist's evaluation of the student's abilities. However, children who are identified as trainable or severely impaired are not eligible for services offered by the Ministry of Education (El-Homossani & Mohamed, 1979). Hence, the most common models of special education services available in some localities are as follows:

a. Special classes: Located within regular schools, programs are presented that address the unique educational characteristics of the educable mentally retarded.

b. Special schools: Educational services form the pillars of such models. Schools are equipped and staffed to suit the educational needs of the educable mentally retarded under the title of Schools for Intellectual Development. At the present time, there are 33 schools throughout the country that provide primary education for the educable mentally retarded. These schools contain 335 classes with an enrollment of over 3,000 children with ages ranging from 5 to 13. The



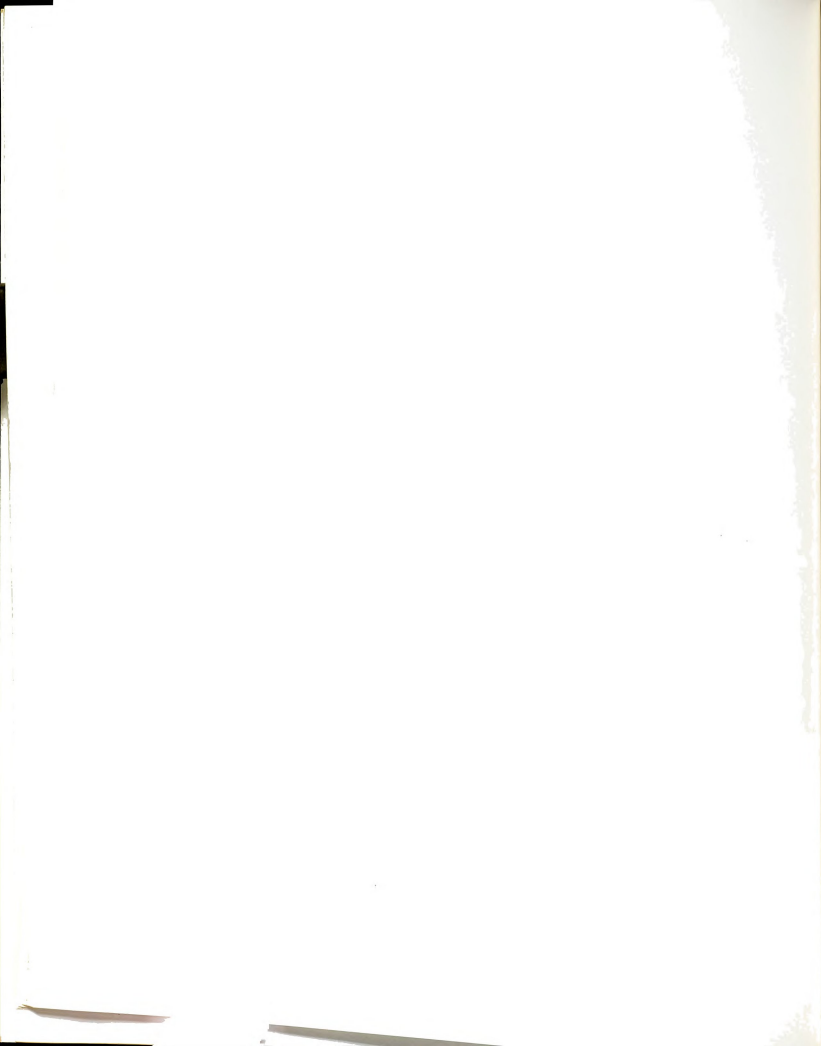
mentally retarded student can then proceed to a vocational preparatory school for a period of three years.

Teachers needed for the educational processes are trained in a special institute in Cairo. Besides teachers, there are trained psychologists who work with the children to improve personal adjustment and readiness for independent living (El Hommossani & Mohamed, 1979).

2. The Ministry of Social Affairs, on the other hand, provides the bulk of noneducational services for the handicapped. For the mentally retarded, the Ministry has formulated policies to integrate the existing services and to create a new model for services. Hence eight centers have been established, in major cities for the most part in addition to the Mataria Center, to provide rehabilitation on a comprehensive basis for both trainable and educable mentally retarded persons from the age of 6 to 25. These services start with determining the individual's eligibility and the kinds of services needed for care.

In order to define eligibility and the kind of service needed, a classification unit was established. The team working in this unit is composed of a medical practitioner, an internist, neurologist, psychiatrist, social worker, psychologist, and rehabilitation counselor. A complete evaluation is done for the case, including:

1. A complete history of the child.
2. Social evaluation.
3. Educational and vocational history.
4. Medical evaluation--general.
5. Medical evaluation--specific.



6. Psychiatric screening.

7. Psychological evaluation:

General abilities--I.Q.

Aptitudes--educational and vocational.

Interests.

Completing that full evaluation, the team can decide on the eligibility of the case. The person who meets the criteria for eligibility is admitted to the most appropriate center considering age, sex, I.Q., and family residence and is provided with medical, psychiatric, educational, and vocational training, as well as psychological services (El Hommossani & Mohamed, 1979).

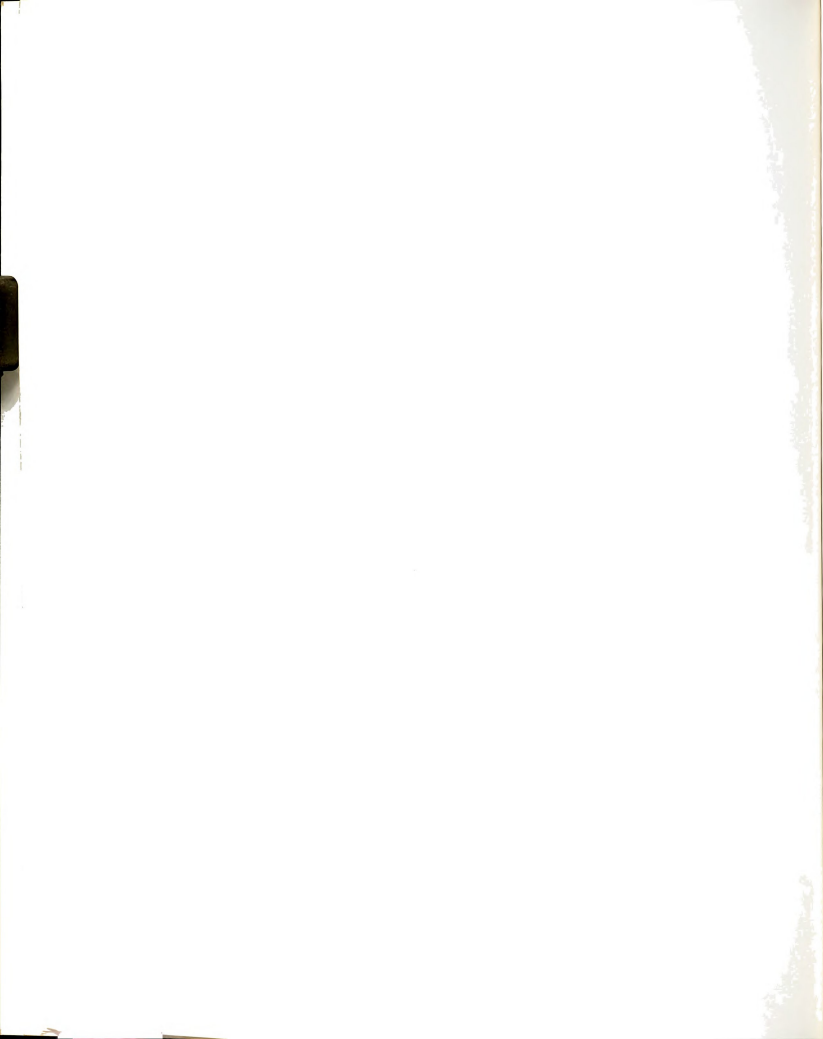
The teachers who are involved in the rehabilitation program, however, are usually employed by the Ministry of Education.

Upon completion of training, the mentally retarded are assisted in finding appropriate jobs in larger factories, firms, or the government. However, those who fail to find work or cannot compete in the labor market can be aided through social security funds so as to have a private business at home or be employed in sheltered workshops.

It should be mentioned that the educational phase of the rehabilitation program is different from its counterpart at the Ministry of Education in several ways:

1. It is run on a comprehensive basis (i.e., physical, social, vocational, and psychological services are provided).

2. It is vocationally oriented for adults.



3. It is prevocational in nature for those who are admitted at younger ages.

4. Once identified, the mentally retarded can be admitted at any age between 6 and 25.

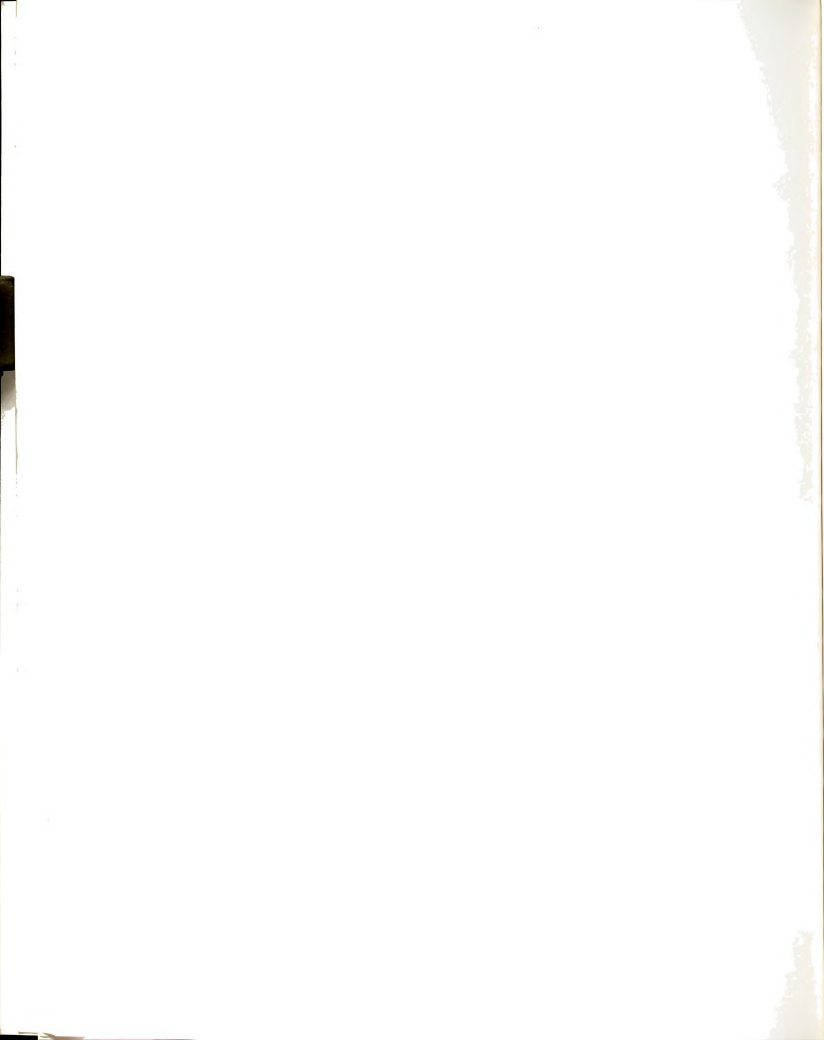
5. It is available for both educable and trainable persons.

It should also be noted that there is no indication in relevant literature of how these two types of services offered by the two Ministries are coordinated if they both are available within one locality. It seems from the literature that educable and trainable retarded students are not served if their localities lack such types of services. It also seems that the severely retarded are not served by any of these services.

Need for the Study

Mataria Center for the habilitation of the educable and trainable mentally retarded is regarded as a prominent and comprehensive center in Cairo. As previously indicated, it was established in 1972 by the Egyptian Society for Intellectual Development. It is the first concrete outgrowth of a cooperative research project supported by the Rehabilitation Services Administration of the United States Department of Health, Education and Welfare and carried out by the Ministry of Social Affairs of Egypt.

The Center was established to serve as a prototype program for training/habilitation services for mentally retarded persons. Among the objectives announced for the establishment of this Center are the following (Provitt, 1981):



1. Providing needed assistance to the existing centers and institutions that render services to mentally retarded persons in Egypt.

2. Establishing a technically sound program of habilitation services and a staff training program to serve as a model for the development of a national program of habilitation resources for mentally retarded persons and their families. In addition, it is a model that could have implications for other Arab countries in the region that may be interested in developing similar programs.

3. Training personnel to administer and provide services in new centers that will be established gradually throughout the 27 Governorates in Egypt.

As far as the immediate objectives of the Center are concerned, the concept that has been adopted by the Mataria Center program in training of the mentally retarded is comprehensive habilitation, that is, a maximum development growth of the total individual to the highest level of independence his potential will permit. Vocational skills training and preparation is an important component of the habilitative programming of the mentally retarded persons served at the Mataria Center to produce the capability for employment, sheltered employment, or supervised activity. Personal care and skills training for self-help capability, educational training for activities of daily living development, and socialization training for acceptable social and work behaviors are given significant emphasis in the program.

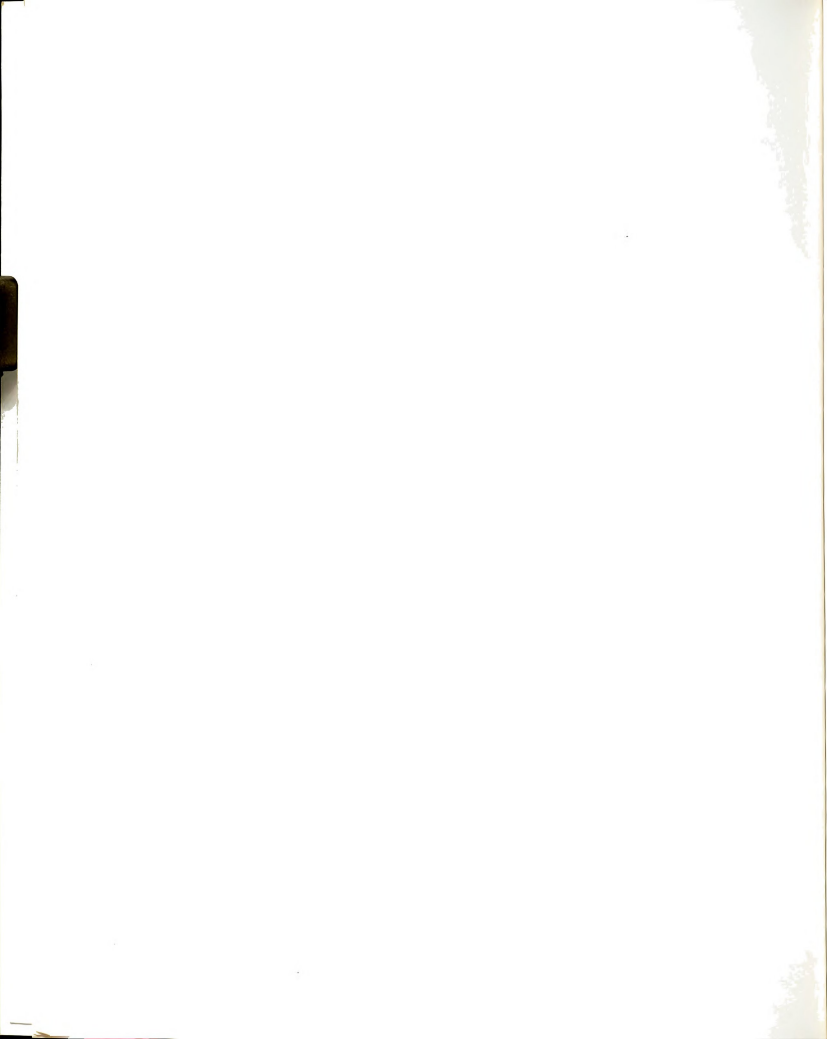
As its ultimate goal, the Mataria Center Program stresses the importance of independent living skills in the hope that its graduates



will eventually become fully independent and be able to live a more normal life, with normality here defined as the ability to participate actively in society and the capacity to meet mental and physical requirements of daily life.

It is very apparent that the Mataria Center Program assumes a great role in the habilitation of mentally retarded persons in Egypt both as it encompasses a wide variety of provisions and as a central focus and model for assistance to other centers. However, since the Mataria Center was opened and fully operational in 1973, no attempt has been made to investigate its effect on its graduates and whether or not they are functioning competently in society. No study has attempted to determine the extent to which the current training program of the Center is suitable for meeting the needs of mentally retarded persons.

To determine whether or not the Mataria Program is efficiently meeting the needs of mentally retarded individuals and training them for living in a way that would lead to adult behaviors adequate to social demands, it is necessary to determine specifically the skill and knowledge areas deemed important by professionals and the parents of its graduates for successful independent living in Egypt. It is equally important to determine to what extent these competencies, knowledge, and skills are present in the graduates as a result of being trained in the Mataria Program. We need to know how the graduates are functioning in society and to what extent they are capable of making a satisfactory adjustment vocationally, personally, and socially. Because the major purpose for which graduates of the habilitation

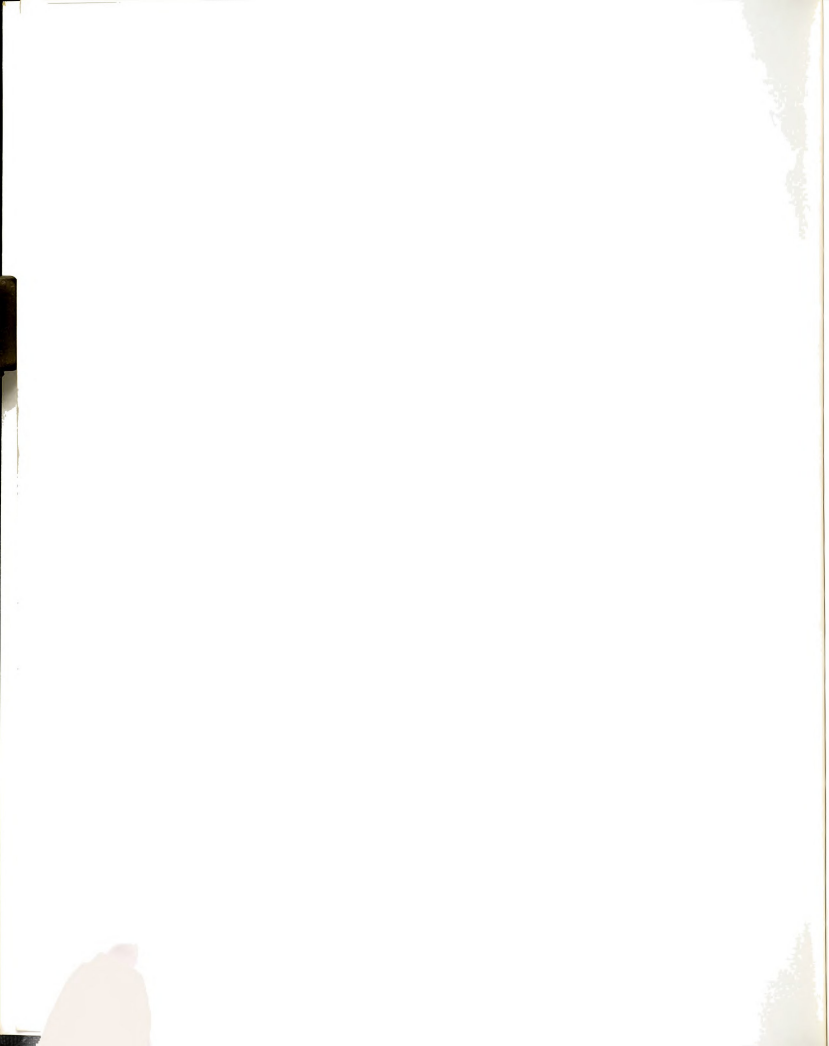


program at the Mataria Center of Egypt are prepared is that of independent living, the independent-living aspect of this program is stressed in this study.

Purposes of the Study

In general, this study is intended to make an evaluation that can be used as feedback to modify ongoing programs, to increase effectiveness in developing skills needed for independent living, and to further the vocational competence of mentally retarded persons in Egypt. More specifically, the following objectives will help in clarifying the extended purposes of this study:

1. To gather basic socio-demographic information regarding the graduates of the Mataria Center of Egypt.
2. To determine whether the areas of competency as listed in Part I of the AAMD Adaptive Behavior Scale (ABS) are indeed the specific competencies needed by mentally retarded persons in Egypt.
3. To describe the adult-program graduates' independent living status.
4. To make an analysis of the strengths and weaknesses of the adult graduates as related to their vocational, personal, and social adjustment.
5. To examine the opinion of the parents related to the effect the Mataria Program had on improving the independent-living behaviors of the graduates.



6. To determine whether or not any significant differences exist in the perceptions of the parents and professionals of the adult-program graduates regarding competencies, knowledge, and skills of importance for successful independent living in Egypt.

7. To provide feedback for the training program so as to promote the independent-living behaviors of the mentally retarded in Egypt.

Research Questions

This study is directed toward answering the following questions:

1. What are the demographic characteristics of a selected group of educable mentally retarded graduates of the Mataria Program?

2. What competencies, knowledge, and skills as measured by the AAMD Adaptive Behavior Scale (ABS), Part I, are acquired by the educable mentally retarded graduates of the Mataria Program?

3. What are the areas of relative weakness of Mataria Program graduates in competencies, knowledge, and skills as measured by the ABS?

4. What competencies, knowledge, and skills measured by the ABS are perceived by the parents of educable graduates of the Mataria Program to be of importance for successful independent living in Egypt?

5. What competencies, knowledge, and skills measured by the ABS are perceived by professional staff members of the Mataria Program to be of importance for successful independent living in Egypt?

6. What effect do the parents believe the Mataria Program has had on improving competencies, knowledge, and skills of the graduates of the program?



7. What is the vocational status of the educable mentally retarded graduates of the Mataria Program?

8. Are there significant differences between perceptions of parents and perceptions of the professional staff members of the Mataria Program regarding the importance of the competencies, knowledge, and skills measured by the ABS for successful independent living in Egypt?

Significance of the Study

Although some progress has been made in both the educational and the training/habilitation provisions for the mentally retarded in Egypt since the establishment of the Mataria Center and a few other centers, there are still many retarded persons whose needs remain unidentified and who receive no special attention, especially in the areas outside the largest cities. Only the most populous communities have been able to provide habilitation services to any extent. In addition, resources within the country and the services they provide, relating to the problem of mental retardation, appear impressive when first reviewed. When explored in detail, however, we find that services provided are fragmented, uncoordinated, and do not extend adequate coverage to all areas and groups within a country with an ever-increasing population. Moreover, gaps in services are obvious in providing a continuum of services needed for optimum development of the mentally retarded. In many instances the services provided by existing facilities are meager due, for the most part, to lack of understanding of the special needs



of the mentally retarded, lack of serious focus on the problem, and inadequate funding.

Consequently, the effects of these disabling conditions on children, which could be minimized, are allowed to become chronic, and the children grow up to become hopeless, heavily dependent on their families, and prevented from successfully using their remaining abilities in a productive manner.

Hence, the present study was conducted in the hope that it would contribute to both the establishment of new educational programs and the advancement of the effectiveness of ongoing programs for mentally retarded persons. As mentioned before, it is obvious that identifying the competencies, knowledge, and skills required for successful independent living in Egypt and knowing which of these skill and knowledge areas are present in the graduates of the Mataria Program would help in identifying the needs of the mentally retarded and their areas of deficiency. By the same token, obtaining information in this respect would help policy makers and program developers in both making effective decisions and taking proper measures to meet the needs of the retarded population in Egypt.

In the meantime, the Mataria Center Program has been under a very thorough revision through a project carried out with special funding assistance by the United Nations Development Programs in collaboration with the Ministry of Social Affairs of Egypt (Provitt, 1981). The primary aim of this project is to examine all aspects of the organizational and administrative structure of the Mataria Center as a pre-



requisite for establishing a program of facilities and services for mentally retarded persons in each of the 27 Governorates within ten years--by 1990. The initial emphasis of this project seems to be on internal program revision and validation. However, external validation of the Mataria Program seems to be de-emphasized at the first stages of the project. Consequently, a study of the graduates of the Mataria Program is a timely one. Its successful completion and subsequent review by the Ministry of Social Affairs of Egypt could have a direct influence on the education and habilitation of the mentally retarded population in Egypt.

Limitations

Findings from this study should be viewed in light of the following limitations:

1. The paucity of literature relating to the education and/or rehabilitation of the handicapped in general and the mentally retarded in Egypt. This may justify, at least in part, the need for the present study.
2. The difficulty of obtaining access to comprehensive information regarding the internal organization of the Mataria Center Program. The fact that the researcher was mostly viewed by the officials there as an outsider who was not sponsored by any official party put him in a position in which he otherwise would have found valuable research information that could support the study findings. Consequently, no attempt was made to analyze the actual habilitation process, curriculum, training methods, evaluation criteria, and the like.



3. The sample was restricted to the graduate population of the Mataria Center who completed their training programs in the years 1976 through 1980. The sample as defined in this study may not have represented other mentally retarded trained at some other centers in or outside Cairo. Hence the findings are limited to the graduates of this Center because the study dealt exclusively with its graduates.

4. Although efforts were made by the researcher to explain and clarify to the participants the purpose and importance of survey research in general and this study in particular, it should be kept in mind that the majority of the participants were not accustomed to survey research techniques, a factor that might have affected the accuracy of their responses. By the same token, some of the parents might naturally have denied their children's mental limitations or exaggerated their expectations of the children's competencies or skills.

Overview of the Remainder of the Study

In Chapter II a review of the literature pertaining to the study is presented. Chapter III focuses on the methodology, the procedures followed in preparing the survey instrument, subjects and participants, and data collection. Chapter IV provides data analysis and findings. In Chapter V, the discussion and conclusions of the study are presented.



CHAPTER II

REVIEW OF LITERATURE

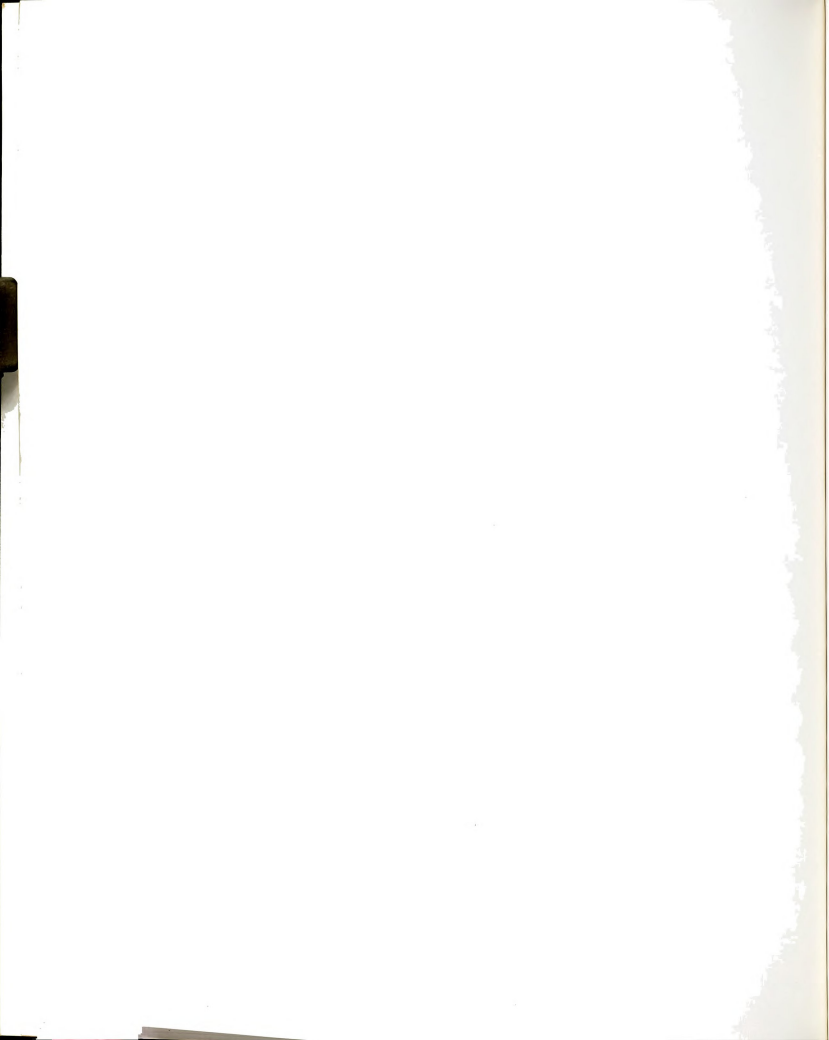
Introduction

The purpose of this study is to describe the adult-program graduates' status related to functioning independently in society after graduating from the Mataria Center Program. The study also concerns itself with the assessment of competencies and skills thought to be of importance for the retardates' successful independent living.

Research relating to the intellectual and social growth of mentally retarded in the United States has been amply carried out in many areas. It is beyond the scope of this study to try to review all that has been written about social and vocational competence and its different components. However, the following areas are thought to be appropriate for the purpose of this study and will be dealt with concisely:

--Definition of independent living as the highest goal of special and rehabilitation services for disabled people in general and mentally retarded in particular.

--Follow-up studies that investigate the independent-functional status of formerly institutionalized retardates and "graduates" of special public school classes.



--The Adaptive Behavior Scale of the American Association on Mental Deficiency as a tool for assessing the independent-functioning status of mentally retarded persons.

Definition of Independent Living as the
Highest Rehabilitation Goal

Reviewing the literature on the definition of independent living (IL) revealed that any individual's definition of independent living is a matter of that individual's perception. As stated by Walls et al. (1979),

If you ask "the man on the street" for definitions of independent living you are likely get responses such as, "It means being on your own, taking care of yourself. You can go places and do things without the help of other people. You do not need anybody else. You've moved away from your parents' control and are making it in the world. You can maintain an apartment, do your own shopping, and generally get along independently." (p. 1)

It is evident from Walls et al.'s statement that IL is a relative concept that each perceives from his own perspective, based on his own situation and goals in life.

However, a clear-cut independence does not seem practically existent. Almost everyone is dependent on others to a greater or lesser extent. Thus, dependence-independence is a continuum for us all. As Walls et al. viewed this concept from a programmatic point of view, they pointed out that the objective of training for independent living is

to move away from the former end of the continuum to a relatively more independent life style. Total dependence implies constant assistance and supervision. To the extent that an individual can begin to accomplish functions of everyday life such as mobility, home care, dressing, eating, and social communication without assistance and supervision, IL skills are gained. Although a



person may never achieve full mobility, progress in other life activities is attainable. (p. 1)

Although the preceding definition conforms to the goals that most rehabilitation programs aspire their clients will achieve, it is a narrow definition that does not consider the person's productivity in life beyond the level of independence. This definition seems to reflect the task-oriented/physical-skill viewpoint that penetrates most traditional rehabilitation programs.

Despite the fact that the above definition does not take other aspects of IL into consideration, the task-oriented physical skills that the definition implies were seen by Cole (1983) as required to be mastered in order to attain independent functioning as far as mentally retarded persons are concerned.

Cole viewed IL from a different perspective. As she explained skills training, she stated that

Widely accepted definitions of IL have two predominant themes in common: self-direction and control over their own lives for handicapped individuals and full participation by handicapped people in the life of the community, including both the responsibilities and the benefits shared by all citizens. (p. 188)

Of course, Cole's definition reflects the two central principles of the recent IL movement in the United States that profoundly shape the ways independent-living skills are conceptualized and taught, in contrast to skills historically taught under the rubric of activities of daily living skills. The fundamental difference, in her view, is that IL skills are skills for self-direction, rather than task-oriented behavioral capabilities. This distinction arises from the basic expectation within the IL movement that handicapped people are capable

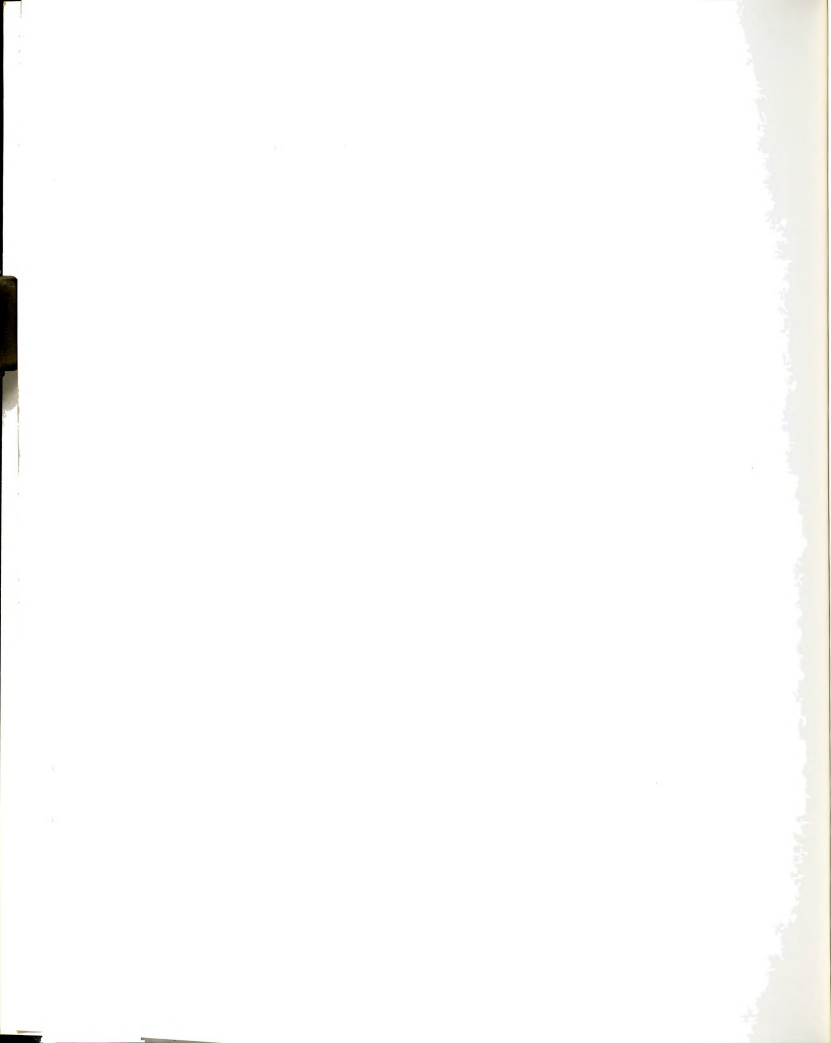


of managing adult responsibilities as contrasted to the tacit expectation of the recent past that has been that handicapped persons need to be taken care of as wards of their parents, appointed guardians, or public institutions.

Heumann (1978), an IL-movement activist, viewed IL in a way that relates to Cole's definition. She stated, "to us, independent living does not mean doing things physically alone. It means being able to make independent decisions. It is a mind process not contingent upon a 'normal body.'"

While Heumann's definition is not operational, other writers like Stoddard (1978) operationally defined IL in a way that is closer to the concept this study adopts, as will be indicated below. Stoddard commented on Heumann's definition, mentioned above, by stating that "when those active in the disabled movement use the term 'independent living,' they are referring to their ability to participate in society--to work, have a home, raise a family, and generally share in the joys and responsibilities of community life."

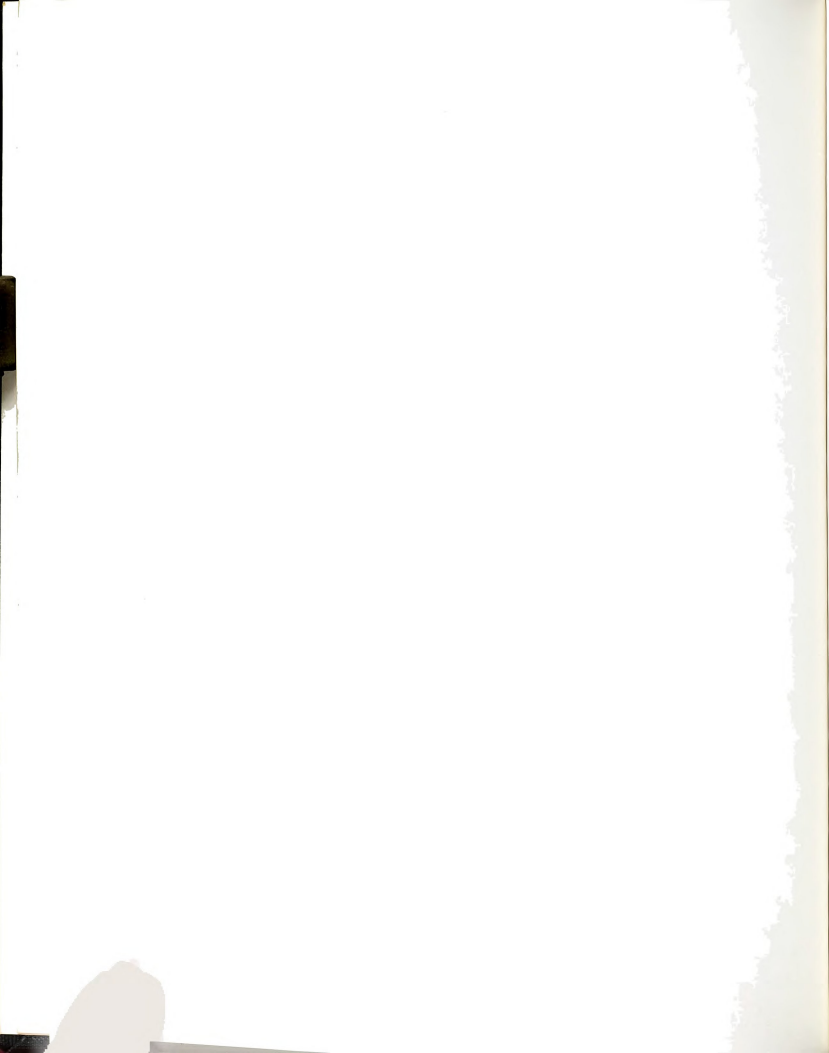
The relativity of independence has made agreement on one definition a difficult task. While some people define it as a state of mind, being able to make independent decisions, or the ability to share in the joys and responsibilities of community life, some other people define it to include the struggle for survival and fulfillment of basic needs (e.g., food and shelter). This would emphasize the point made earlier in this review--that IL is a relative concept and a function of one's perception (Frieden, Noble, & Zola, 1983).



Noble (1983) went further when he explained the universality of the independent-living concept. From a national view, Noble explained that the IL concept, stripped of its connotation as a social movement in the United States, is closely allied to the concept of handicap, as defined by the World Health Organization. For him, IL represents freedom from a handicap that may arise from an impairment or a disability. This concept as being practiced in the United States varies drastically in its meaning, implication, and the means by which disabled groups achieve their independence in life. From an international view, Noble pointed out that a number of paradoxes exist between the American perspective on one hand, and the developed and developing countries' perspectives on the other. He stated that

desperately poor families in other parts of the world maim their children so that their pitiful appeal as beggars will be enhanced. In still other places, . . . numerous instances can be cited where persons whose livelihood is threatened as a result of economic conditions are induced by public policy to declare themselves "disabled" in order to obtain income. (pp. 6-8)

The researcher may conclude from the preceding review that looking at independent living as a social movement in the United States, one would find the concept more allied to civil rights and by far much more disabled-controlled and oriented (Heumann, 1983). While disabled Americans practice their rights and seek control over them, the picture is very different for handicapped people in other parts of the world. As far as this researcher is concerned, the degree of control over their lives that may be attained by the handicapped is limited by the extent to which all people's lives are controlled in that society.



That is not to suggest that disabled people in a country like Egypt should not aspire to live independently. What this researcher suggests is that independent living as the highest goal desired for disabled people should conform to the cultural values, the demands of the society, and the social, economic, and political trends that influence the rehabilitation and care services in a given country.

Independent Living as a Goal in Training Mentally Retarded

Substantial differences occur in the development of capabilities among various groups of handicapped persons. This fact necessitates that training a disabled person to achieve the goal of independent living should conform to the specific needs and characteristics of that person.

Professionals in the field of mental retardation have long realized that the highest goal of any special program should be to help retarded persons to master the skills for independent living. However, from a programmatic perspective, the review of literature on the concept of independent living as the highest goal of any special program has been found to be broad, confusing, inconsistent, and difficult to interpret, a problem that makes researchers like Seltzer et al. (1981) note, "Much of the research on post-institutional adjustment has been difficult to interpret because the community adjustment has been operationalized in many different ways" (p. xii).



Lakin et al. (1981) realized this inconsistency in using such terms and the problem it causes researchers in the field. These researchers pointed out that

The notion of "adjustment," with its numerous definitions, is every bit as problematic as the term "community." The breadth of conceptualization of "adjustment" has spanned from complete self-sufficiency to simply not being remanded to an institution within a specific period of time. While such a wide range of operational definitions of adjustment does not inherently lead to confusion (if the operations are made explicit), it does lead to problems in comparability and consistency of research findings. Furthermore, it does not recognize the fact that for all of us, adjustment is a matter of degree and of personal preference which may vary from time to time and from one area of life to another. (p. 383)

Nevertheless, it seems obvious from the literature that there has been general agreement among the majority of professionals that independent living is based on one's adaptation to the community. However, the differences seem to lie in the way the various authors perceive the process of adaptation, the environmental settings in which it occurs, the criteria by which they judge its success in the mentally retarded, and the terms used to operationalize this process. Moreover, the degree and the manner in which some professionals focus on particular issues mostly reflects their area of professional expertise, work experience, and interests.

Hence, we may find researchers who equate the term "independent living" to adaptability to environment. MacMillan (1977), for example, mentioned that the success of any special program should be measured in terms of whether or not it helps retarded individuals to master the skills for independent living. He viewed the power of fending for one's self in life, or an adaptability to the environment, as "the



social competence that is the vital evidence of whether or not a person has adjusted to life and as the actual outcome of interest, not academic achievement" (p. 309).

In the same manner, Dingman (1973) believed that acquiring the skills crucial for independent living should be taught by programs designed for the retarded in order to attain "social competence." As he stated,

The really important question, then, is what is to be taught as "social competence." The skills crucial for independent living--getting along with people and utilizing social abilities--are not attained in programs for the retarded designed to provide an academic education. I am afraid the current emphasis on academic achievement is not what is needed by the retarded to develop their lives. (p. 90)

Retardates' adaptability to community consists of improvements in a variety of complex behavioral areas. If we are to measure the range of behaviors included, the measurement should be comprehensive. Seltzer et al. (1981) suggested three dimensions of community adaptation that should be, at a minimum, considered when we measure one's improvements in living independently. These are:

1. Improvements in clients' performance of community living skills, such as self-help, housekeeping, cooking, shopping skills.
2. Reductions in behavior problems should be seen as evidence of community adaptation.
3. The extent to which the individual is more satisfied with his or her lifestyle in the community than in the institution with respect to many aspects, including the physical environment, social relationships, degree of autonomy.

Thus, an individual can be said to have adapted to the extent that he or she improves in performance, manifests fewer problems, and/or increases in satisfaction. (p. 82)



Since independent living as a rehabilitation goal has been viewed by many researchers as the retarded's ability to be socially competent and his adaptability to the environment, and since the concept of independent living as a goal has been found to be universal, relative, and varied from culture to culture, this study has adopted the definition of the International Labor Office (1978) that operationally defines independent living as follows:

Before any assessment of competence or ability of the retarded is made, it is necessary to define the rehabilitation goal. The highest goal for the mentally retarded person is the same as that for any other person, i.e., a person who is totally independent, who is able to earn his or her own living, support himself and perhaps a family in his or her own community and have a happy, productive, and respected place in society.

The skills required by a retarded to reach this goal through training and experience are as follows:

- Vocational skills (ability to do a job and earn a living);
- Independence (social and self-help skills relating to all activities of daily living);
- Behavioral skills (ability to get along with workmates, people in the community and family, and to conform to accepted standards of behavior);
- Communication (ability to communicate with others both in understanding what is said and being able to respond);
- Mobility (ability to move around in the community);
- Literacy (where possible). (International Labor Office, 1978, p. 15)

This definition of independent living as a goal conforms to the goal of the vocational rehabilitation services rendered to the mentally retarded person in Egypt. It also conforms to the cultural and economic values and environmental demands that are required of a retarded person to live independently in Egyptian society and to be socially competent. Moreover, it conforms to most of the definitions that have been reviewed in this part of the chapter. Furthermore, it helps this researcher to clearly identify the criteria for assessing the



community-adjustment status of the subjects of this study and in presenting the findings. Later in this chapter, more will be presented about the evaluation and assessment of independent-living skills and their relationship to the retardate's adaptability and adjustment to the community.

Follow-Up Studies on Community Adjustment

Importance of Follow-Up Studies to Program Evaluation

A fair amount of research has been devoted to studying the mentally retarded individual's adjustment to community, both before and after the move into community. However, there has not been much attention given to careful and systematic examination of community settings. Payne and Patton (1981) pointed out that less research has been directed at inspecting what Rappaport (1977) called the "person-environment" fit.

Over the years, researchers have realized that the contribution that studies of retarded adults' adjustment make to improving the effectiveness of rehabilitation and special education programs cannot be overemphasized. Windle (1962) recommended studies of adult adjustment as the scientific basis for establishing prognostic data. Diagnosis was viewed as a summary of the present, while prognosis was inference of future course, duration, and outcomes.

Follow-up studies of adult adjustment were viewed by Windle as contributing to certain vital areas of decision making. These areas may be viewed as criteria that emphasize:



1. Treatment, which involves cost factors of different treatments and the probability of outcomes following different treatments.

2. Identification of variables related to favorable outcomes. The isolation of data would enable practitioners to further augment their influence. Moreover, there remains the great need to identify those factors associated with social and vocational adjustment.

3. Admission and termination criteria. This area involves knowing the length of time required for various treatments. The intention would be to select those persons who genuinely reflect the condition so as to avoid misdiagnosis and so as not to retain persons unnecessarily. Also, if certain treatment approaches were firmly established as helpful, there would be implications for physical facilities and staffing patterns.

4. Program evaluation. The suggestion is made that eventual client attainments could be a basis for assessing program goals. Thus, the validity of approaches that purport to achieve vocational adjustment could be assessed with reference to that criterion.

5. Philosophy and/or theory of treatment. The validity of either the philosophy (value structure) and/or theoretical system (integrated explanation) must depend on its accuracy of prediction. The eventual validity of prognosis at time of diagnosis is that all variables concerning a person will account for an effective treatment plan.

6. Base-rate data. Windle noted that evaluation of program alternatives involves a comparison between what can be expected and the actual result. Without a knowledge of the effects of either



nontreatment or of previous treatments, it becomes difficult to attribute consequences to a "new" approach.

7. Individualized treatment. This area of knowledge would uncover the multiplicity of variables necessary for prediction. The current problem is that individuals similar in age, sex, and measured intelligence can differ dramatically in work adjustment. The objective of this area of inquiry would be to establish different outcomes and treatments dependent upon the implications of intervening variables between admission and graduation.

While Windle recommended using these seven criteria for utilizing follow-up data in establishing, monitoring, and/or evaluating programs' outcomes, other researchers like Payne and Patton (1981) have viewed providing follow-up services for students who have completed, or will complete, the preparation program as an important objective that should be included in all programs.

Cown (1978) emphasized the importance of follow-up studies to community-program evaluation. He maintained that the purpose of follow-up is to insure that effects observed when a program ends accurately and stably mirror the program's effect. Follow-up data thus solidify generalizations about program effects over time. Such information is important for planning future programs. Without follow-up, we can underestimate program effects (p. 795).

Furthermore, Rosen et al. (1977) refuted the suggestion made by Tizard that purely descriptive follow-up study has little further interest and should be replaced by predictive investigations. They



pointed out that "to reason this way . . . is to ignore the gaps that still exist in our understanding of those retarded persons who are capable of community adjustment" (p. 143).

Types of Follow-Up Studies

Reviewing the literature revealed that follow-up studies that have been conducted on the retarded adult's community adjustment by many investigators have followed different approaches that vary according to each investigator's objective and research design.

Payne and Patton (1981) and Rosen et al. (1977) identified two techniques that have been established:

1. One is the use of follow-up studies of previously institutionalized people or of noninstitutionalized persons to investigate their general adjustment after a period of time in the community. This type is purely descriptive in nature and dates back to the early part of this century.

2. A second technique involves the attempts to predict successful community adjustment. Because this type of study is carried out with prognostic intent, it is sometimes called prognostic study.

This classification of follow-up studies according to the researcher's intent does not clearly reflect program evaluation as a potential purpose for which follow-ups would be conducted. Many researchers, particularly in recent years, have conducted follow-up studies in an attempt to determine the extent and quality of public residential facilities. Hence, McCarver and Craig (1974) discussed the different types of studies done over the years concerning



postinstitutional placement of mentally retarded in a more systematic manner than the other authors mentioned above.

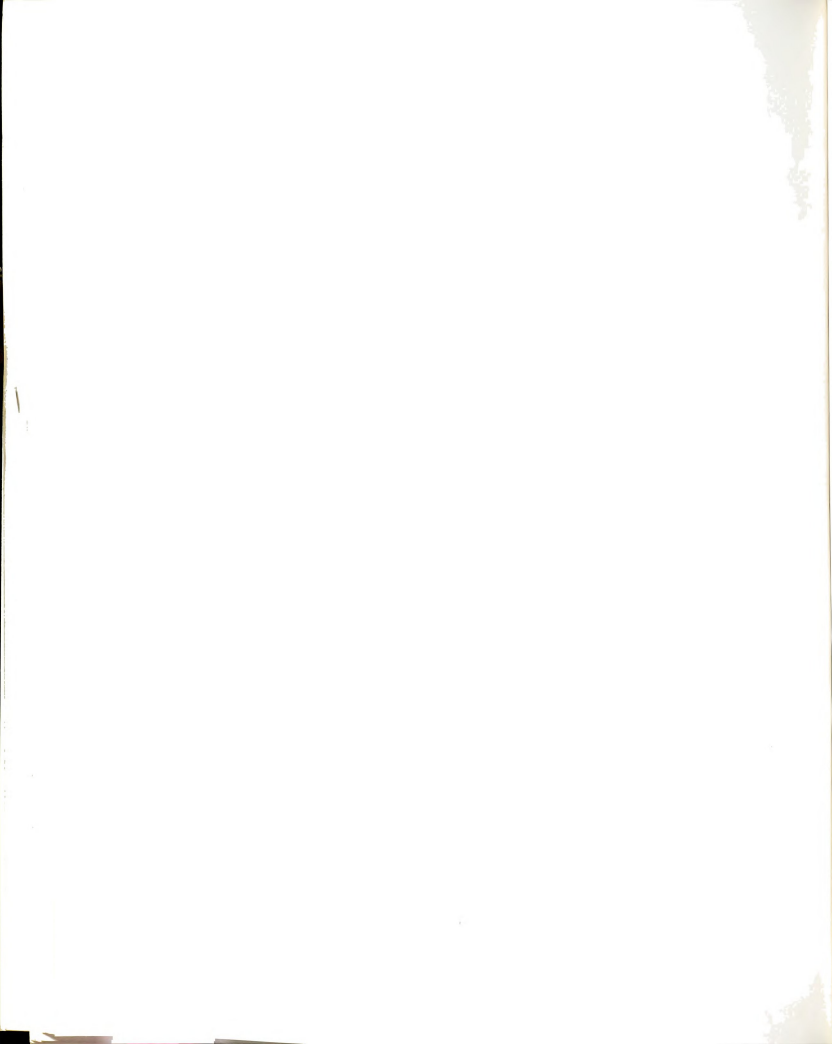
McCarver and Craig stated that all of these studies may be subsumed under one of three general categories that can be distinguished mainly on the basis of the experimenter's purpose. These categories are:

1. Prognostic studies, which are done in an attempt to arrive at variables that would predict the success or failure of released retardates. Most of these studies have been retrospective, i.e., the data were collected at the time of the follow-up from available records, rather than before release.

2. Simple follow-up studies, in which no attempt was made by some investigators to isolate predictor variables. In this type, investigators have merely followed up discharges to see how they were faring in the outside world.

3. Comparative studies. This type of study is distinguished by some attempt to compare the retardates' achievement in the community to some other relevant group. According to McCarver and Craig, this type of study is relatively rare because what constitutes a relevant control group is a complicated issue.

McCarver and Craig viewed that most of the follow-up programs employed by public residential facilities fall into either the second or third category in an attempt to determine the extent and quality of these programs. However, they asserted that using the third type is



mandatory if one seriously wants to evaluate a residential-facility program.

However, the type of purely descriptive study is the concern of this part of the literature review. It will mainly concern itself with studies done on the mildly retarded who are supposedly the major beneficiaries of educational and rehabilitation services for the retarded. As research in education and rehabilitation of the mentally retarded has been competently reviewed by others in several sources (Eagle, 1967; Goldstein, 1964; McCarver & Craig, 1974; Rosen et al., 1977; MacMillan, 1977; Seltzer et al., 1982; Gollay, 1982; Bell, 1982) that are well known, this part of the chapter will not repeat existing reviews. Rather, it will comment briefly upon the general direction which previous work has taken and review, relatively in detail, only leading representative studies that ought to have major implication for understanding the adjustment of the mentally retarded dealt with in the present study and for planning future directions for programs and research in Egypt.

By the same token, this review will deal with studies performed with formerly institutionalized individuals as well as with graduates of special schools or special classes in the public schools. Following this approach conforms to the approach most investigators have traditionally followed in reviewing studies performed with these two populations.



Post-Institutional Studies

Attempts at following up the careers of the former residents of institutions for the mentally retarded can be traced back to Fernald (1919). His study is considered a classic in the establishment of procedures that have been used, with some variations, in succeeding studies. It involved individuals discharged from the Waverly Institution over a 25-year period. Information was gathered by a social worker who visited former patients' families, pastors, local officials and agencies, and the police with the aim of learning

all we can of our former pupils--whether they are now living, where they are now living, how they have occupied themselves, whether they have been useful and helpful at home, or for wages, whether they have been able to look out for themselves, their problems, trials, experiences, etc. (Fernald, 1919, p. 2)

Of the 1,537 individuals released by the institution during the period of the study, information was available on only 646, or less than half the original subjects. Fernald found that 612 were in other institutions for the retarded, while 279 could not be located. Of the 646 available subjects, 176 were females and 470 were males. Many of the female subjects appeared to make a satisfactory adjustment to community living. Of the 90 females who were located in the community, 11 were married and were housewives, 8 were self-supporting and independent, 20 worked at home, and 13 were living totally dependent at their parents' home. Thirty-eight of the females had negative or antisocial records. Four of these had been committed to correctional institutions. The one factor that differentiated the adjusted from the



maladjusted was that the former group typically had someone who had taken an interest in them.

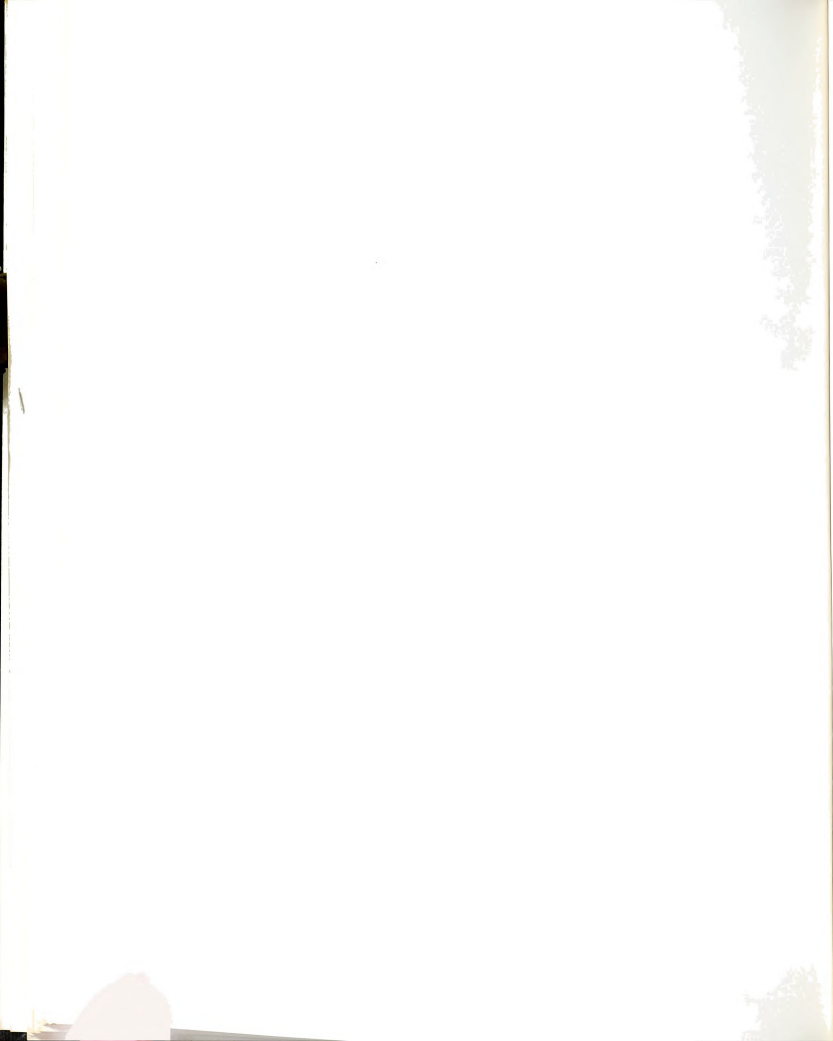
The male subjects appeared to make a better adjustment to community life than their female counterparts. Twenty-eight were self-supporting and living independently, 86 were employed and living at home, 77 worked at home, and 59 lived dependently at home with their families. The majority of the dependent group were lower-grade retarded, while those holding jobs tended to come from higher functioning levels.

Goldstein (1964) noted that release of most of the patients Fernald followed had not been recommended by the institution. These patients, however, functioned fairly well in the community. We can only speculate as to how well more capable patients might have done.

Fernald's study was important both in terms of the methodology it introduced, and also in its administrative implications. As Goldstein (1964) pointed out, "The results of this study were diametrically opposed to the commonly held expectations of administrators, including Fernald" (p. 222).

Moreover, Fernald's data were so in conflict with the prevailing view that for two years he delayed publication of his findings which showed that some retardates could, indeed, adjust to the "outside world." It should be noted that Fernald's results are widely interpreted today as supportive of deinstitutionalization policies.

Rosen et al. (1977) described Fernald's study as original and conducted with a sophisticated research goal. As they reported,



Fernald's original study was undertaken to help future generations of mentally retarded persons passing through his institution. There is a good reason to believe that on the basis of his results he was able to modify his earlier endorsement of ideas concerning the menace of retardation and, we may assume, he was able to modify administrative policies at Waverly State School and within the American Association on Mental Deficiency, where he served as president.

Fernald's study stimulated a series of studies of retarded persons who had been released from institutions, a series which has carried through to the present time (Foly, 1929; Matthews, 1922; Storrs, 1924). These early studies refuted the notion that all retardates were incapable of a satisfactory adjustment in the community. Another finding was that, aside from severe retardation, the level of measured intelligence did not appear to have a great relationship either to success on the job or the amount earned, and further, that the institution, at least in terms of length of residence, had little to do with outside adjustment. However, MacMillan (1977) contended that such follow-up studies usually contained serious methodological flaws that make conclusions hazardous.

Heber and Dever (1970) mentioned some other studies conducted by other researchers (e.g., Abel & Kinder, 1942; Bigelow, 1921; Duncan, 1942; Kinder, Chase, & Buck, 1941; Little & Johnson, 1932; Thomas, 1943; Town & Hill, 1930). These researchers looked at the nature of the adjustment of adult retardates who were discharged from the institution. Their reports usually contained information on one or

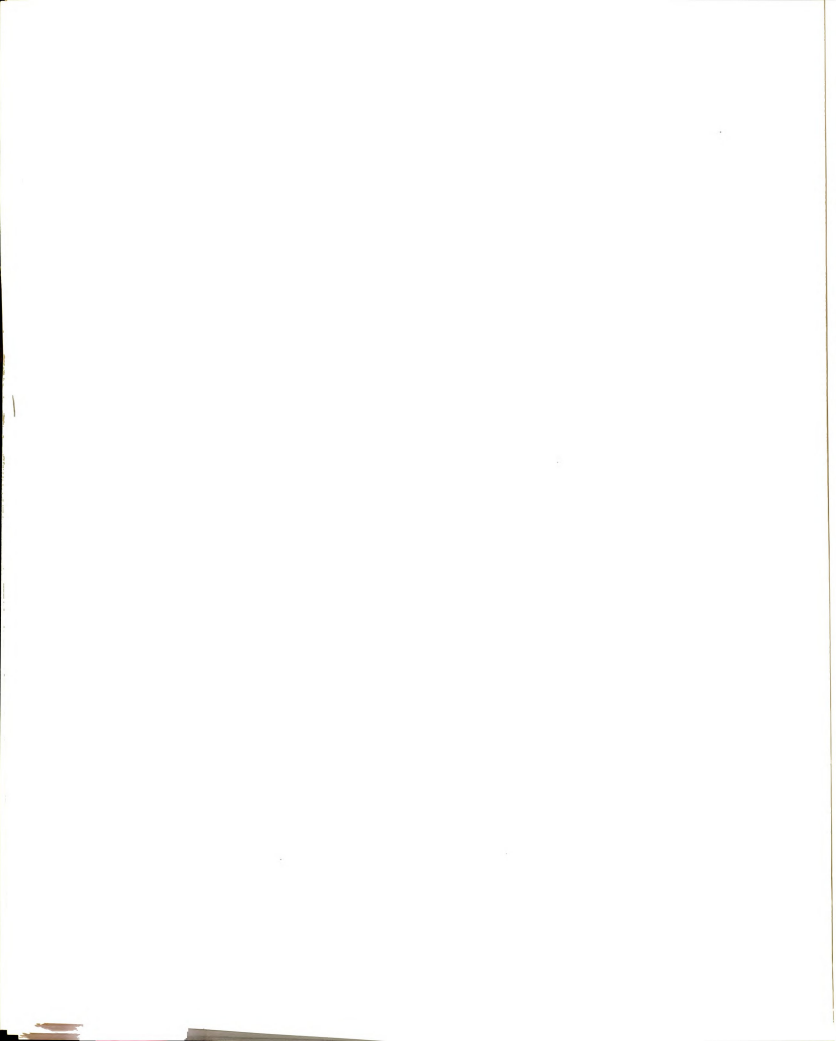


more of the following variables: occupational status, income, police records, and marital status. Heber and Dever criticized the findings of these studies on the grounds that they cannot be compared with each other because they differed in the extent to which they evaluated the adjustment outcomes. Furthermore, the studies varied in terms of what constitutes adjustment, the sampling procedures, the length of time subjects were institutionalized, and the length of time since release.

On the other hand, Rosen et al. (1977) reviewed follow-up studies conducted by researchers who were inspired by Fernald to follow up previously institutionalized retardates. These studies include, but are not limited to, Hegge (1944), Coakley (1945), Wardell (1946), Wolfson (1956), and Windle, Stewart, and Brown (1961). These studies have, in general, used such criteria of community "success" or "failure" as employment, avoidance of arrest or antisocial behavior, and the ability to remain out of an institution of any sort.

After summarizing the findings of these studies, Rosen et al. reached a conclusion similar to Heber and Dever's mentioned above. They pointed out that it is obvious that every investigator interprets the "success" and "failure" of previously institutionalized retardates depending on his choice of criteria, his individual value or moral judgment about what to accept as a high or low success ratio. Rosen et al. (1977) reviewed conclusions made by Eagle (1967) and Goldstein (1964) regarding these criteria and concluded that

the absence of uniform and consistent criteria from study to study, differences in the samples being followed, in the type of community placement, the length of time in the community, and the



economic conditions during the years studied make comparison of the various follow-up investigations quite difficult.

Rosen et al. also explained the inadequacy of these follow-up studies in dealing with the question of how to evaluate success or failure rates. They further indicated that none of the studies reviewed has dealt specifically with the effect of the community as it influences the mentally retarded graduate of the institution.

The studies performed by Windle (1962) and Edgerton (1967) have been cited by many authors as two of the most sophisticated studies on discharged institutionalized patients (Heber & Dever, 1970; Rosen et al., 1977; MacMillan, 1977; Payne & Patton, 1981). Heber and Dever viewed the results reported by Windle and Edgerton as a challenge to some of the conclusions based on earlier work.

Windle studied three groups of patients released from Pacific State Hospital on different types of leave: vocational placement, home placement, and family-care placement. These groups of residents had spent time in the community. However, they could not be discharged from the institution. Consequently, Windle set forth the purpose of his study as to determine why patients failed to remain in the community. Each person was followed for a four-year period, and reasons for community failure were analyzed. Windle found that persons on vocational leave failed most often because of their inadequacy in performing work and in interpersonal relations. Persons on home leave failed because of lack of environmental support or because of intolerable behavior. However, while the reasons for failures



differed, the percentages of failure were about the same--50% for all three groups.

MacMillan (1977) reported that several conclusions can be drawn from Windle's findings: the results run counter to the optimism noted in the writings before 1960; they are consistent with them only in the finding that factors independent of IQ appear to determine success and failure; the reasons for individual failure seem to vary as a function of the type of leave granted.

Moreover, Windle's study is also consistent with the earlier studies in its inability to deal specifically with the effect of the community as it influences the mentally retarded discharges of the institution. Edgerton's (1967) monumental study, however, addressed this problem. Because Edgerton's study is regarded by many investigators as a leading one in explaining the effect of the community on the mentally retarded's adjustment, the study and its findings will be briefly presented. Elaboration will be made only on the investigators' perceptions of the overall findings and their implications for research and programs.

Edgerton's study was performed during the early 1960s of 53 mentally retarded who were released from Pacific State Hospital between 1949 and 1958 because they had been successfully rehabilitated. All were diagnosed as mildly retarded and were considered to have social competence and emotional stability. The original sample of 110 had a mean IQ of 65 and a mean CA of 35 years, but for practical purposes 53 people were selected to be contacted personally. Edgerton's study was



designed to gain a greater appreciation of the everyday lives of mentally retarded who had been released from an institution.

The areas of focus that Edgerton and his colleagues believed to be factors in community adjustment were:

1. Where and how the ex-patients lived,
2. Making a living,
3. Relation with others in the community,
4. Sex, marriage, and children,
5. "Spare time" activities,
6. Their reactions to the stigma associated with retardation, and
7. Their practical problems in maintaining themselves in the community. (Edgerton, 1967, pp. 16-17)

By interviewing the subjects and other people associated with them, Edgerton and his colleagues gained a great amount of interesting information on the everyday lives of the subjects.

The subjects were found to be coping with life in the community and spending their lives trying to conceal the stigma of retardation and incompetence, "which never can truly be hidden" (Rosen et al., 1977). Major areas in the everyday lives that were problematic for the subjects centered on (a) making a living; (b) managing sex, marriage, and reproduction; and (c) using leisure-time activities. To cope with these problems and to help pass as normal, many of the subjects developed relationships with "benefactors." These benefactors--frequently spouses--were typically of normal intelligence and were of assistance in carrying out those activities requiring literacy or the use of numbers and symbols. The frequency of such dependency made Edgerton estimate that only three of the subjects could be judged as independent and that without the support of their benefactors 20 subjects would be returned immediately to the institution.

Heber and Dever (1970) viewed the support provided by benefactors for the subjects' survival in the community as substitutes for the protective environment of the institution. They also speculated that the possible reason for the failures of these same individuals on earlier releases may have been the lack of a benefactor rather than any real differences in skills or attitudes.

Nonetheless, Rosen et al. (1977) pointed out that Edgerton's description of the thin and transparent "cloak of competence" of the mentally retarded has been influential in shaping professional attitudes toward the potential of the mentally retarded for independent community living.

Twelve years after the original study, Edgerton and Bercovici (1976) were able to locate 30 of the original 53 subjects. As these two investigators attempted to determine the effects of time and changes in life situations on the subjects' social adaptation, their findings of that follow-up do not conclusively support the idea that the passage of a considerable period of time improves the social adaptation of the retarded persons (MacMillan, 1977). Some subjects had improved, others had not changed, and others seemed to have regressed. While Edgerton and Bercovici indicated their inability to predict very well from their original data how a person was to be doing at a later date, some general remarks could be made. As length of time in the community increased for the subjects, there seemed to be fewer feelings of stigmatization, less concern with trying to deny their retardation, and less need for benefactors. Furthermore, while the

incidence of unemployment was higher, quality of life was heightened. The subjects' increased gratification with life was not a function of employment; subjects regarded themselves as normal despite their vocational failures.

Payne and Patton (1981) reported a number of points raised by Edgerton and Bercovici as noteworthy:

1. Adjustment is a complex and multi-dimensional concept.
2. Social adjustment . . . may fluctuate markedly, not only from year to year, but from month to month or even from week to week.
3. Perhaps what constitutes good social acceptance from the mentally retarded person's viewpoint may differ significantly from the criteria used by professionals.

Payne and Patton quoted Edgerton and Bercovici's statement that reflects the third point just mentioned:

After many years of community living, persons once institutionalized as mentally retarded could . . . develop their own collective and individual views of what constitutes good social adjustment. If, as we suspect, our criteria of adjustment will continue to emphasize competence and independence while retarded persons themselves emphasize personal satisfaction, then our dilemma is even worse than we had all previously recognized. (Edgerton & Bercovici, 1976, p. 495)

Hence, as larger changes occur in the retardates' lives, it is difficult to determine whether these changes occur as a result of increased time spent within independent-living arrangements in the community or as a reflection of more general changes in society and the demands of all workers for improved quality of life. Edgerton and Bercovici's findings are largely subjective judgments derived from their interviews.

Nevertheless, it is still most important that within each of these categories (better adjustment, worse adjustment, same adjustment) there



was diversity. For example, one person judged to be very competent in 1960 was found to be even better adjusted in 1976; however, so were some cases considered highly dependent in 1960 (MacMillan, 1977).

Investigators who reviewed Edgerton's study compared its findings and criteria used for investigating community adjustment to other findings of studies conducted before 1960. Heber and Dever (1970) pointed out that Edgerton's report did not conform to the optimism engendered by previous studies which used superficial occupational and social indices of adjustment. They also indicated that the Windle (1962) and Edgerton studies showed that "melting into society never to be heard from again" may have been an illusion of earlier studies (p. 402).

However, MacMillan (1977) described the picture Edgerton and Bercovici drew of their subjects as vivid and anything but optimistic. It is a very different portrayal of the quality of life enjoyed by patients released from institutions than emerged from the follow-up studies conducted before 1960. The Edgerton subjects were the most qualified patients and were sent into the community in a period of unparalleled prosperity in the United States, yet they survived only marginally and apparently largely because of the support of benefactors.

On the other hand, the findings of Edgerton seem pertinent to any efforts to normalize moderately and severely retarded persons. To the extent that the benefactors determine success or failure, it might be

helpful to involve professionals or paraprofessionals in a benefactor-like role, at least in the early periods following a retarded person's release from an institution.

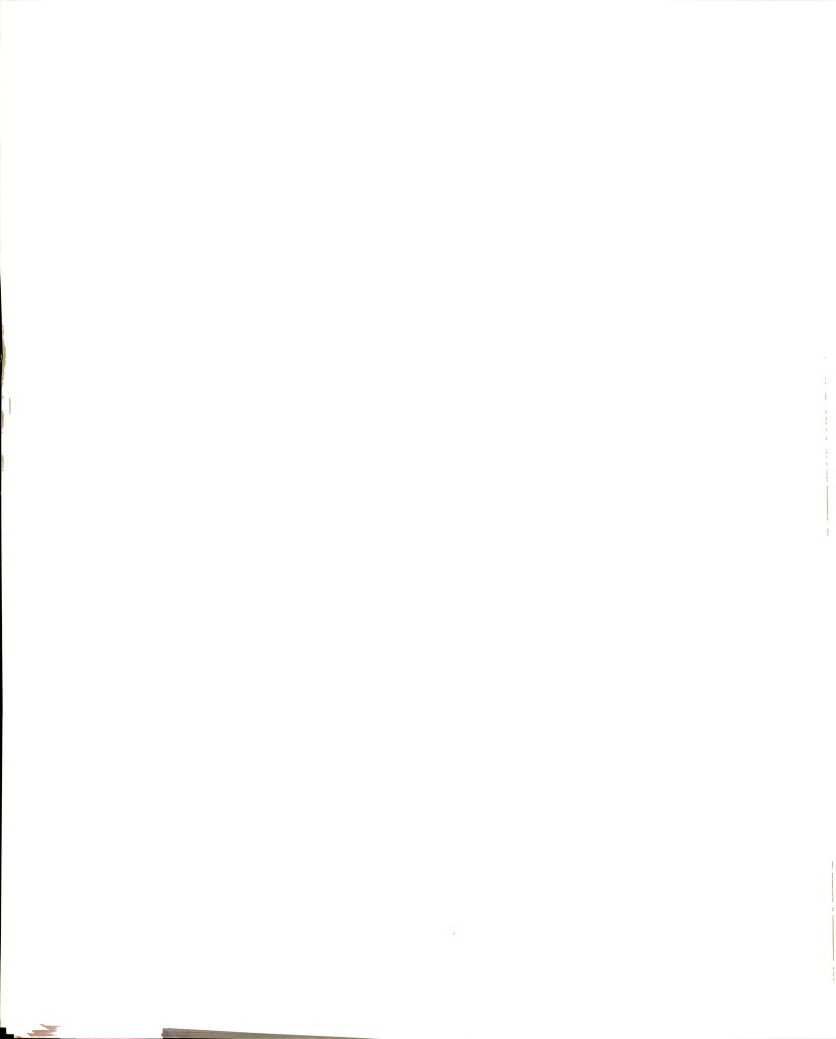
Rosen et al. (1977) concluded their discussion of Edgerton's study by pointing out that it is of interest that Edgerton's suggestion for greater concern of professionals in mental retardation with the more subjective side of life is precisely what some researchers are recently attempting to explore.

Studies of Noninstitutionalized Retardates

The characteristics of patients in institutions have been changing in the last two decades as community-based special education programs have expanded. As Heber and Dever (1970) indicated, undoubtedly associated physical and behavioral impairments are important precipitants of institutionalization. Hence one might expect a superior adjustment from the graduates of special education classes.

Follow-up studies of subjects who have been identified as retarded by community agencies or the public schools, but who have not been institutionalized, have focused almost exclusively on educable mentally retarded (EMR) as opposed to trainable mentally retarded (TMR) (MacMillan, 1977).

The occupational level achieved by the graduates of special education classes seems to have been cited in the literature in support of the merits of special education, and in advocacy of its expansion. However, there have been few comparisons to determine whether the



adaptive level of the adult retardates who have not had the benefit of the special class is, in fact, inferior to that of the special class beneficiary (Heber & Dever, 1970).

At any rate, researchers as well as investigators of this type of research seem to have reached a near agreement that the vast majority of former mildly retarded who have been in special schools or classes disappear into society and escape identification as mentally retarded beyond their training careers (MacMillan, 1977; Rosen et al., 1977; Ingalls, 1978; Chinn et al., 1979; Payne & Patton, 1981; Peterson & Smith, 1960; Dinger, 1961; Goldstein, 1964; Kirk & Johnson, 1951; Sarason, 1943; Wallin, 1955).

Sparks and Younie (1969), for example, concluded from a review of the literature that mildly retarded persons have demonstrated capability and competence as adults. In the same manner, Goldstein (1964) drew several generalizations concerning the mildly retarded. First, most of the mildly retarded will make an adjustment to their communities as adults. Second, these mildly retarded persons are more often adversely affected by economic depressions than are nonretarded persons. Third, prevailing economic conditions largely determine whether or not retarded persons are able to join the ranks of homeowners and acquire other of the usual material assets of families. Fourth, the occupations held by the mildly retarded as adults tend to be on the lower end of the occupational scale. Heber and Dever (1970) commented that these conclusions made by Goldstein are identical to

those drawn from the early studies on persons discharged from institutions.

However, while investigators agreed on the retarded adult's capability to adapt successfully to community living, they differed sharply in interpreting and evaluating the quality of success reported by follow-up studies conducted on this population. On the other hand, researchers who reviewed follow-up studies differed in estimating the optimism inferred from the results of such studies. Three of the classic follow-up studies done before 1960 compared the community adjustment of the mildly retarded graduates to control groups of normals who were in school at the same time. These include studies of Fairbanks in Baltimore (1933), Baller in Lincoln, Nebraska (1936), and Kennedy in Connecticut (1948). As Baller conducted his study at a time of severe economic depression that resulted in the lower employment rates reported, he generally drew a bleaker picture of the lives of the retarded adults studied than did Fairbanks or Kennedy, who conducted their studies during periods when economic conditions were generally favorable (Goldstein, 1964).

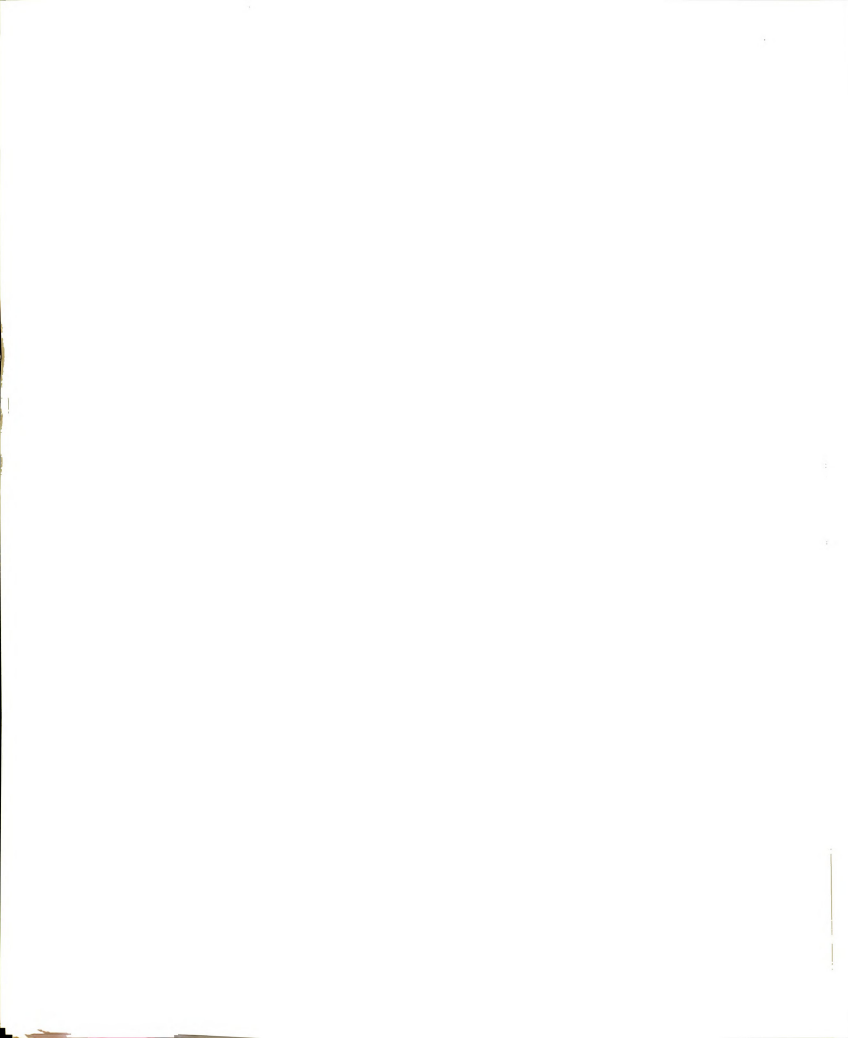
Besides different economic conditions, the three studies differ in the types of communities they surveyed and the types of jobs the formerly retarded could find in the face of increasing mechanization. But despite differences between the three studies, they indicated that the marital status of the retarded subjects as well as their home ownership appeared to be somewhat comparable to the nonretarded control subjects who came from the same background.

Comparisons with the control group revealed that retarded subjects in all three studies showed a higher evidence of dependency and reliance on support provided by either family or agencies, more involvement with the police, poorer living conditions, and a higher incidence of broken marriages.

When Charles (1953) followed up the 206 retarded Baller subjects later, he found that at the ages of 36 to 49 years, a lower proportion of them had married than the norm for the population of Lincoln, Nebraska, as a whole. Of those who were married, about 80% had one or more children, and the majority of these children were progressing normally in school. The group as a whole was found to be still functioning at a marginal level. However, Charles optimistically concluded his report with the following statement:

The studies of social adjustment of persons judged to be mentally deficient present a fairly bright picture, suggesting that many, if not most such persons, can find a happy and successful life in the community, if given understanding and guidance. (p. 19)

As Heber and Dever (1970) examined studies completed since 1960 (Patreson & Smith, 1960; Dinger, 1961; Eddy, 1963; Lindenblatt & Moll, 1963; Keller, 1964; Miller, 1965; Strickland & Arrell, 1967; Baller, Charles, & Miller, 1967), they challenged Charles's optimistic outlook implied in the above statement. Heber and Dever contended that former EMRs do not do as well as nonretarded persons from the same socioeconomic background. Most of these studies, particularly Strickland & Arrill's (1967), have set forth the unskilled and service-occupation nature of the employment of retardates, whereas occupations held by nonretarded persons from the same diverse economic background



are primarily characterized as clerical, semiskilled, or skilled. Payne and Patton (1981) presented a synopsis of information derived from reviews and studies of mildly retarded workers that supported Heber and Dever's viewpoint.

In addition, the wages of the persons studied in both the Dinger (1961) and Peterson and Smith (1960) studies show that nonretarded females outearn former EMR males by over \$1,000 per year in median annual incomes. Comparing the median annual income of former EMRs (females, \$1,002; males, \$2,837) to the poverty figure adopted by the President's Council of Economic Advisors in 1963 (\$3,000), Heber and Dever concluded that the validity of Charles's statement is questionable. They maintained that in judging whether or not the retardates' economic life was bright as compared to the nonretardates', a distinction should be made between the percentage of subjects who are employed full time or are self-supporting and income derived from that employment. Such a distinction would show the economic life of the retardate as either bright or marginal. Moreover, Peterson and Smith went on to state that fully 93% of their retarded population resided in homes that were substantially below standard. Hence, Heber and Dever said, "It is difficult to see how these persons could be considered to present a 'fairly bright' picture" (p. 404).

Heber and Dever summarized their views in a general fashion by stating that:

The picture portrayed by [the 1960s] analysis of the status of graduates of special classes, as well as of persons discharged from institutions, is not a bright one at all. They appear to be

at the lowest points on the scales of social and occupational adjustment. They do not, as often is stated, adjust as well in adult life as do their nonretarded age peers who live in comparable neighborhoods. . . . Clearly, [these studies] do not suggest that institutional or special education habilitation renders most retarded persons capable of an adjustment which we would set as minimally adequate. (pp. 404-405)

Heber and Dever's conclusions were also supported by another follow-up study conducted by Gozali (1972). As he could locate 56 of 218 male EMR who had participated in a work-study program from 1964 to 1966, he found the average income of those employed (\$3,145) was still sub-standard.

Nonetheless, after Charles followed up Baller's original (1936) study, the same subjects were contacted some years later by Miller (1965) and again by Baller, Charles, and Miller (1967). At the time of the third follow-up, the majority of the retarded subjects were found to be self-supporting (MacMillan, 1977).

A serious criticism of these studies is the lack of similarity between the retarded and control groups on dimensions other than IQ. Goldstein (1964) pointed out the problems in comparing groups of unequal socioeconomic levels. He suggested that researchers should compare the retarded with a nonretarded sample "drawn from a common and contemporary socio-physical milieu" (Rosen et al., 1977).

An attempt to correct this deficiency was included in two studies conducted by Kennedy (1984, 1966) on the social adjustment of a mildly retarded group in a Connecticut city. Kennedy's study is worth mentioning here, somewhat in detail, because her investigations covered a broad range of criteria, many of which have been used in subsequent

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follow-up studies (Rosen et al., 1977). In her study, 256 mentally deficient persons were matched with 129 normal controls in a way that would make both groups so comparable in all socioeconomic aspects that the major difference between them would be their intelligence levels. The purpose of the study was to examine adjustment of both groups according to five broad criteria:

1. Employment record,
2. Economic status,
3. Marital and family patterns,
4. Academic progress of offspring, and
5. Social functioning as reflected in antisocial behaviors and community participation.

When Kennedy replicated the earlier study 12 years later, she was able to locate approximately 70% of the original sample. In general, Kennedy's findings showed both similarities and differences between the two groups in terms of getting married, number of children, children's IQ, self-support, living arrangements, material belongings, money saving, work performance, court records, and recreational activities.

In defining personal, social, and economic adjustment in terms of the criteria of her study, Kennedy was quite optimistic in her conclusions:

Adjustment in each area of behavior may and does range from a minimal to an extremely high level with, however, the "norm of expectancy" still being attained because two important criteria have been: to care adequately (even though minimally) for themselves and those dependent upon them; and to be law-abiding. . . . The overwhelming majority of both subjects and controls have made acceptable and remarkably similar adjustment to all three areas: personal, social and economic. The main differences are in degree rather than in kind. (p. 51)

While Kennedy's study is laudable for its completeness, investigators have differed in evaluating its findings. Rosen et al. (1977),

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for example, stated that the question can be raised regarding the similarities of adjustment between the subjects and the controls as they were equalized on all variables but IQ. One would then wonder whether the similarities reported are due to the achievement of the retardates, or merely to the initial socioeconomic and intelligence deficits of the controls. Although Rosen et al. admitted that the use of control groups in follow-up studies allows for more precise comparisons between retardates and nonretardates, they indicated that it does not answer all questions that require answering. Nor does it provide information regarding factors that determine successful or unsuccessful adjustment.

Ingalls (1978) viewed Kennedy's findings from a different perspective. According to him, the results of this type of research suggest that many children who are considered mentally retarded by the schools and indeed, many people who are institutionalized, are capable of independent living, and thus probably ought not to be considered mentally retarded.

Several other studies investigating the socioeconomic status of the EMR graduates were conducted in more recent years. Most of these studies followed, in one way or another, the leading representative studies, mentioned already, regarding the variables studied, criteria of adjustment, whether or not a control group was used, and findings reported.

Crain's (1980) study is worth indicating here because it suggests some explanations for the discrepancies noted between its findings and

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previously reported findings concerning unemployment and poverty-level status of EMR adults. In Crain's study, the economic status of 130 EMR graduates of the Special School District, St. Louis County, Missouri, was investigated. The graduates were randomly selected from the classes of 1962, 1965, 1968, 1971, 1974, and 1977. Current occupational data were collected and recorded from occupational records. Personal telephone interviews with each of the 130 individuals were conducted.

Results showed that 68% of the individuals were in the civilian labor force. Of individuals in the labor force, only 7.9% were unemployed and the majority were earning a yearly income of approximately \$7,000. Only one individual of the employed category was earning an income at poverty level. Sixty-three percent had unskilled and semiskilled jobs. Of the variables age, sex, race, IQ, and vocational training, age was the only variable found to be related to wage; i.e., the older the individual, the higher the wage.

Crain justified the unskilled and semiskilled jobs held by her subjects as the only jobs open to them and for which they qualified. Moreover, because EMR adults are of lower ability than others, they hold lower-paid and less-prestigious jobs.

Although her justifications conformed to the general findings of previous studies, Crain reported that previously reported findings concerning unemployment and poverty-level status of EMR adults were not true of her population. One of the explanations she suggested for these discrepancies was that the definition of unemployment used in

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other studies was nebulous. According to the U.S. Department of Labor definition of unemployment, which is the definition Crain used in her study, a person (16 years or older) must be "laid off" and/or actively seeking employment in order to be considered as unemployed. As she reported, it appears that Keeler (1964), Tobias (1970), Dinger (1961), Kidd, Cross, and Higginbotham (1967), and Peterson and Smith (1960) subtracted the percentage of those not working from the employed group and considered those individuals as being unemployed. She added that the issue was further confounded when Kidd et al. included as employed those who were homemakers, in the military, and working in sheltered workshops. Dinger (1961) included individuals who were in further training and full-time homemakers in his employed group.

Follow-Up Studies of Mentally Retarded in Egypt

Conducting follow-up studies has, in general, been stressed within a frame of reference to evaluating rehabilitation programs in Egypt. Mohamed (1982) indicated that rehabilitation program evaluation in Egypt has been stressed since 1966, when the Ministry of Social Affairs conducted the "Study on the Effectiveness of Rehabilitation Programs." He pointed out that the study was in the form of a follow-up survey of those who were rehabilitated in the preceding five years (1960-1965). The population was stratified according to type of disability and a random sample taken out of each stratum. The results of this study were very helpful in program development in subsequent years. It

is not clear from the only source available on this matter whether or not this study included the mentally retarded population.

The absence of a complete explanation of the status of retarded adult graduates in Egypt may be attributed to several factors, the most important of which are: the recent development of the special education and rehabilitation programs for mentally retarded persons and the fact that the existing scarce literature is of an uncritical nature, consisting merely of official reports. In fact, a serious follow-up study of the retarded adult graduates in Egypt has not been undertaken as far as this author has discovered.

However, in 1977 an Institute for Program Evaluation in the field of rehabilitation was established in collaboration with the United States National Institute of Handicapped Research. The institute has a plan to train professionals, conduct research, and apply evaluation strategies in the field. The present study was conducted with the help of a research team provided by the Egyptian Institute mentioned above.

Discussion and Implications

Follow-up studies of graduates are plentiful for two types of programs: special classes for EMR children and institutions. In some instances studies have focused upon the individual's occupational adjustment (e.g., Does he have a job? How long has he held it? Is he on public assistance?) and his personal adjustment in the society (e.g., Is he married? Can he care for his own needs? Does he avoid trouble with the law?).

In general, the review of leading representative follow-ups suggests that individuals who were either deinstitutionalized or "graduated" from school settings were able to adapt successfully to community living. However, while some investigators were optimistic in their future outlook for these individuals, others were pessimistic and pointed out that their quality of life is very poor.

This difference between investigators may have resulted from the inconsistency of follow-up studies in selecting and defining clearly the criteria for what constitutes successful adjustment to community life. As reported by Payne and Patton (1981),

Think for a moment, what criteria do you believe to be significant? While many studies have used similar criteria, there has been no effort to standardize a set of general criteria. Of course, some specific criteria may need to vary from one community setting to another if we are truly to consider the idea of "person-environment fit." (p. 318)

Most of the studies reviewed have used IQ as the sole criterion for defining the subject groups. Rosen et al. (1977) pointed out that subjects were usually identified from past records without benefit of comprehensive diagnostic procedures. Ranges of IQ of retarded subjects have differed widely from study to study, with few attempts to differentiate borderline or near-normal subjects from those with more severe deficits.

However, McCarver and Craig (1974) identified eight major criteria by which to gauge community adjustment. Within each of these major categories, more specific variables may be considered. Rosen, Clark, and Kinitz (1977) summarized the adjustment variables identified by McCarver and Craig as follows:



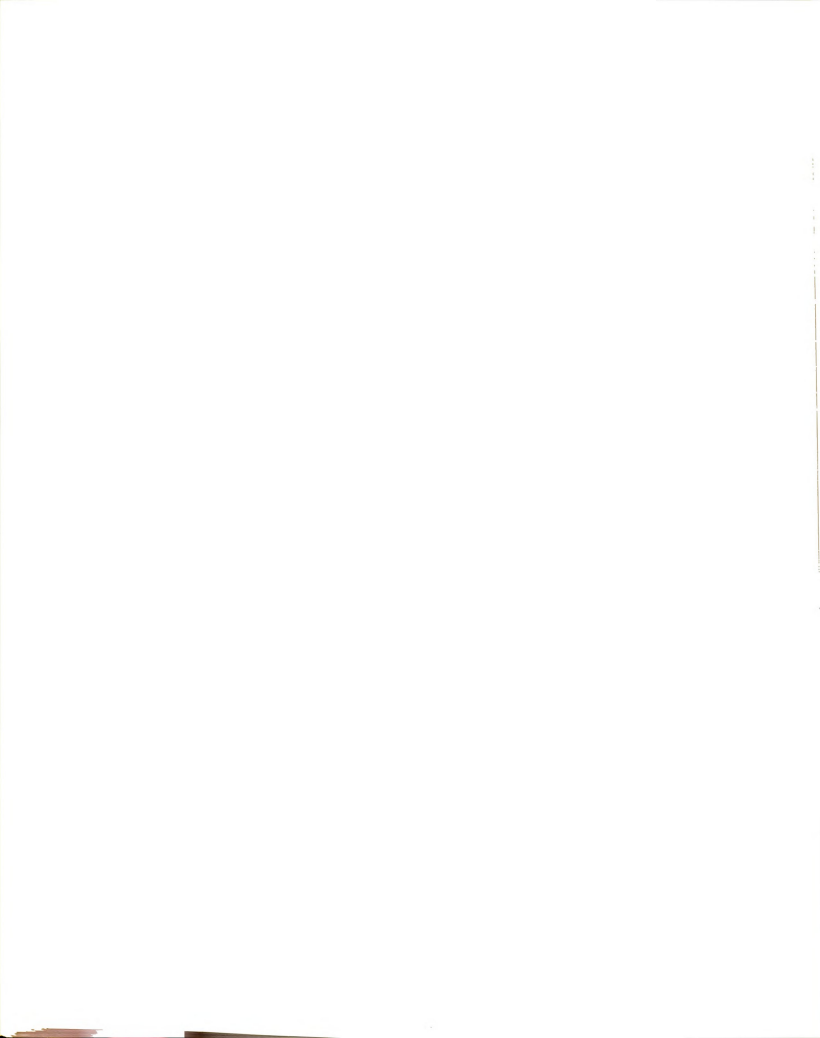
1. Living environment (type of residence, amount of rent or mortgage payments, residential stability, satisfaction with living quarters);
2. Type of employment (place of work, skill level, job requirements);
3. Job changes (general stability, mobility up or down);
4. Savings and money management (debts, bank accounts, budgeting, installment buying);
5. Sexual problems (venereal disease, promiscuity, prostitution, homosexuality, illegitimacies, marital adjustment, exploitation);
6. Antisocial behavior (legal problems, arrests, delinquency, acts of violence);
7. Marriage and children (sexual adjustment, contraception, parental responsibility, health of children);
8. Use of leisure time (social contacts, recreational activities, hobbies, reading, travel). (pp. 142-43)

The literature on follow-up research has been very helpful to the present study both from a theoretical and an operational point of view. The preceding review of follow-up studies on the capability of both formerly institutionalized retardates and "graduates" of special public school classes of independent functioning in the community has helped in identifying the need for the study, conceptualizing and devising the procedures, methodology of investigation, and selection of its variables.

Adaptive Behavior Scale

The Concept of Adaptive Behavior

In 1973 the American Association on Mental Deficiency (AAMD) adopted a definition of mental retardation that included the criterion of deficit in adaptive behavior. According to this definition, professionals were able to find three criteria that had to be met before an individual was considered to be retarded. These were (1) subaverage



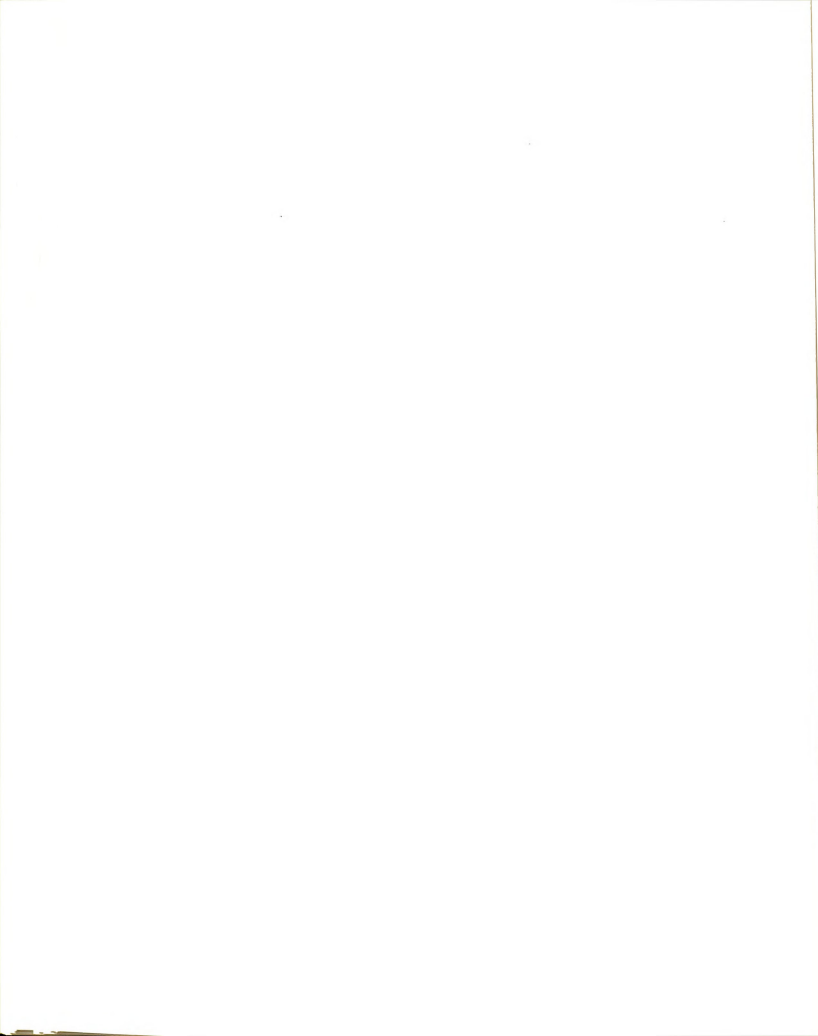
intellectual functioning, (2) origins during the developmental period, and (3) an impairment in adaptive behavior, which indicates impaired adjustment (MacMillan, 1977). However, professionals could not clearly determine whether or not a person was impaired in adaptive behavior according to the third criterion of the AAMD. Consequently, guidelines had to be developed by which one could judge adaptive behavior.

First, a definition of adaptive behavior was developed. It has undergone several revisions. The current Manual on Terminology and Classification in Mental Retardation describes adaptive behavior as: "the effectiveness or degree with which the individual meets the standards of personal independence and social responsibility expected of his age and cultural group" (Grossman, 1977). The term "adaptive behavior" as defined by the AAMD is also called "social competence" (Cain et al., 1963), "social maturity" (Doll, 1953), "adaptive capacity" (Fullan & Loubser, 1972), and "adaptive fitting" (Cassel, 1976).

The second step involved the development of a standardized scale by which one could judge adaptive behavior. Before we examine the Adaptive Behavior Scale, it is appropriate to examine adaptive behavior and to explore some of its characteristics as relating to the concept of independence.

Leland (1978) defined adaptive ability as involving three components:

1. Independent functioning, defined as the ability of the individual to successfully accomplish those tasks or activities demanded of him by the general community, both in terms of



critical survival demands for that community and in terms of the typical expectations for specific ages.

2. Personal responsibility, defined as both the willingness of the individual to accomplish those critical tasks he is able to accomplish (generally under some supervision) and his ability to assume individual responsibility for his personal behavior. This ability is reflected in decision-making and choice of behavior.
3. Social responsibility, defined as the ability of the individual to accept responsibility as a member of a community group and to carry out appropriate behaviors in terms of these group expectations. This is reflected in levels of conformity, social positive creativity, social adjustment and emotional maturity. (p. 40)

This definition emphasizes the individual's ability to respond to the demands of his environment and community. The demands obviously change radically as the individual develops. As far as this definition is concerned, adaptive ability of the adult is primarily assessed by the capacity to function independently in the community, hold a job, effectively use money, and so forth (Maloney & Ward, 1981).

A second feature of adaptive ability is that these behaviors vary from society to society and even from community to community, depending on the demands made on a given individual. MacMillan (1977) explained that an individual's success or failure can only be measured in terms of that environment. Hence, what is demanded from a child living in an urban community is not the same as that demanded from a child living in a rural community.

Moreover, Havighurst (1972) emphasized that expectations differ for boys and girls and by social classes. He also pointed out the need to allow subgroups to establish individual priorities in defining what is normal.



Payne and Patton (1981) went a step further to indicate that it is necessary to remember that very few people behave, or are expected to behave, in the same manner in all places at all times. Most individuals have a number of different roles they are expected to fulfill that vary according to the different social contexts in which they find themselves (p. 191).

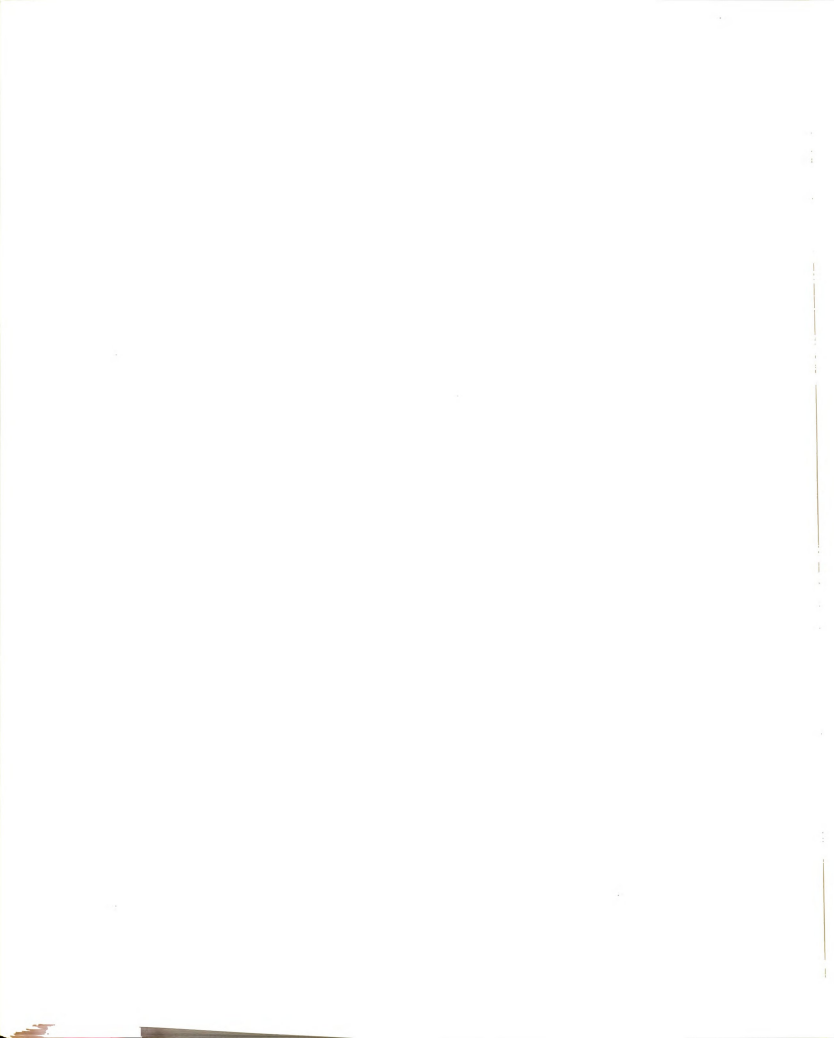
Moreover, Payne and Patton declared that the pluralism in a society, such as American society, the diversity of ethnic, cultural, religious, and social groups that thrive autonomously within the confines of a common culture, create endless possibilities for different values to dictate dissimilar degrees of acceptability for common behaviors.

Adaptive Behavior and Its Relationship to Independent Living

It is apparently evident from the previous explanation that we can make no absolute statement as to what constitutes adaptive behavior. Interestingly, as we have seen in reviewing the literature in the first section of this chapter that independent living is a relative concept that varies from one culture to another, so is the concept of adaptive behavior. It is a relative and variable phenomenon (Maloney & Ward, 1979). It is not surprising to find that the majority of researchers see the concept of independent living as intertwined with the retardate's adaptability to his environment.

Klein et al. (1979) indicated that

Coulter and Morrow (1977) report at least nine definitions of adaptive behavior currently found in the literature. Yet a review



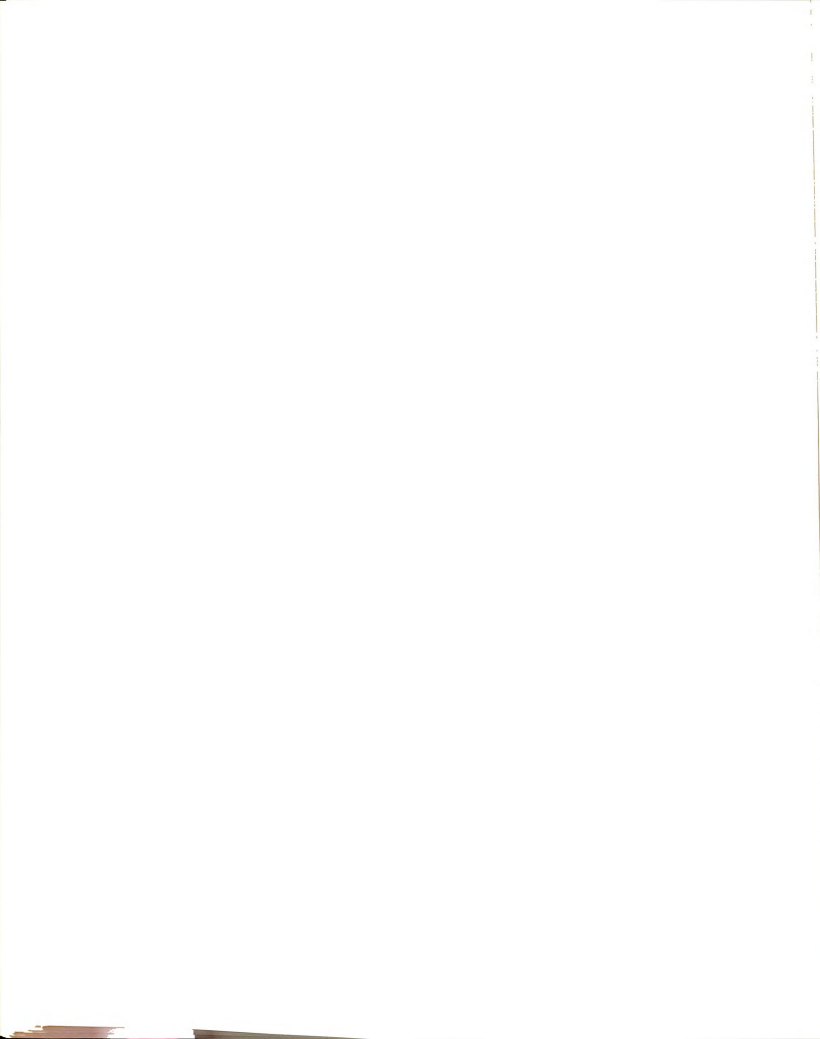
of these definitions indicates several "themes" common to nearly all of them. They emphasize adequate development of skills for (a) independent functioning in self-help skills, (b) maintaining responsible social relationships, and (c) personal independence. (p. 83)

Mercer (1973) attempted to clarify the concept by specifying expected behaviors for particular age groups using a social system approach. As far as the adult age group (16 years and over) is concerned, she stated that the primary new role is occupational--the expectation that one will be able to play a productive occupational role and to be financially self-sufficient. For adults, adaptive behavior is measured both by the number of roles the adult is playing and by his level of performance in those roles (p. 136).

Rosen and Kinitz (1973) suggested that the principle of normalization has been linked to the acceptance of adaptive behavior as a criterion of functioning of the mentally retarded. While normalization reflects a desire to treat the mentally retarded as normally as possible, adaptive behavior has been offered as a criterion of how well the mentally retarded individual conforms to society's demands for independence and personal responsibility.

Nihira (1973) explained that earlier researchers such as Berry and Gordon (1931) stated that "the acid test of mental deficiency is not, and should not be, scholastic educability, but this power of fending for one's self, or an adaptability to the environment" (p. 101).

Benoit (1973) noted that the transition from a state of dependency in which a person's basic needs are met by others to the assumption of total responsibility for self defines the process that is



difficult for a person whose adaptive capacities are limited. Benoit maintained that such limited adults who have a prolonged period of dependency must receive special assistance if they are ever to make independent living arrangements (p. 241).

Zigler and Balla (1982) indicated that given some minimal intellectual level, the shift from dependence to independence is perhaps the single most important factor that enables retarded persons to become self-sustaining members of society (p. 13).

Leland (1978) pointed out that it is most valuable to consider levels of functioning in terms of their relationship to independence, starting with "no evidence of impairment" through a level of almost total dependence. Leland also indicated that this concept of independence versus dependence needs to be based on community expectations rather than institutional expectations and can, in a sense, become the main basis for deinstitutionalization (p. 41).

MacMillan (1977) explained how the concept of adaptive behavior varies according to the different stages of maturity. Maintaining that social adjustment is the standard in adulthood, he defined it as the ability of the individual to maintain himself independently, to be gainfully employed, and to conform to social standards set by the community (p. 36).

Payne and Mercer (1975) stated that recent definitions of mental retardation emphasize or at least consider the individual's capability to adjust and function adequately within his environment. Social competence has been referred to as the ability to become a mature and



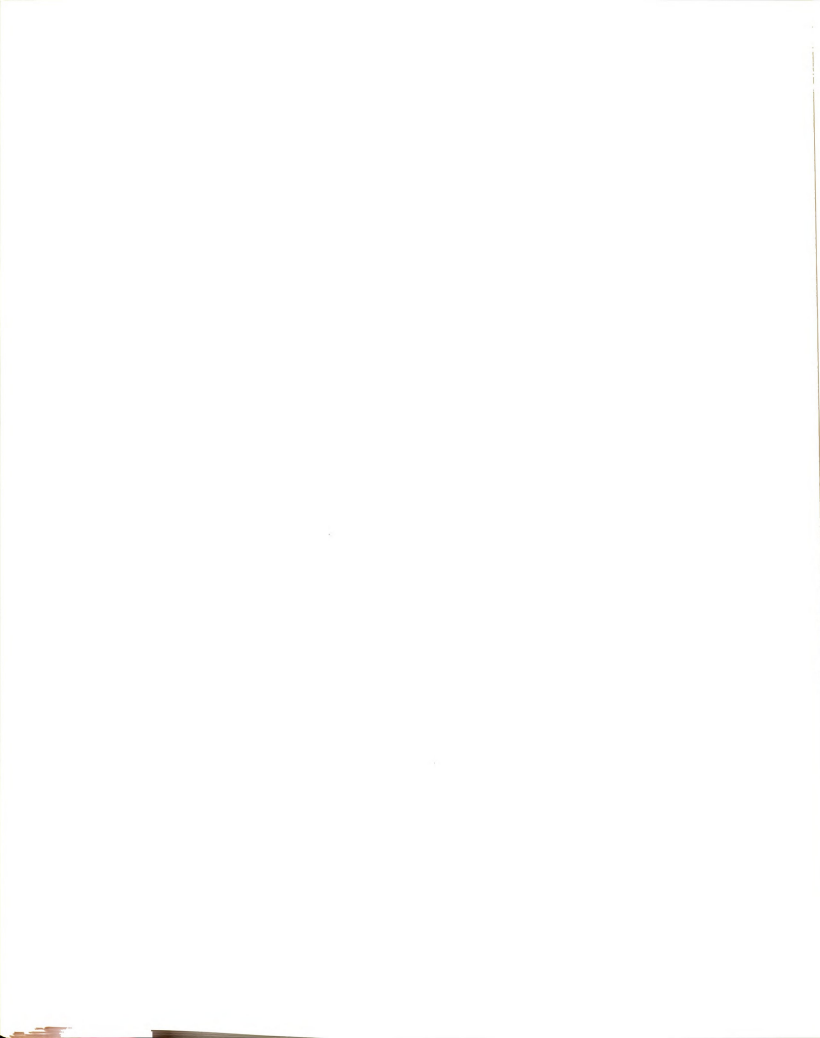
dependent person, one who adequately meets the social demands on him (p. 93).

Measures of Adaptive Behavior

As we have seen from the previous presentation, the concept of adaptive behavior encompasses the quality and manner of the individual's interactions with his environment as well as the level of effective coping and flexibility of the person (Leland, 1973). In light of this conception, the American Association on Mental Deficiency (AAMD), in 1965, developed a project to study the broad dimensions of adaptive behavior. The project produced two adaptive behavior scales (Nihira, Foster, Shelhaas, & Leland, 1964). One of the scales was designed for children aged 3 through 12, and the other was for people 13 years of age and older. Later the scales were revised in a combination form called the AAMD Adaptive Behavior Scale, 1974 Revision (Nihira, Foster, Shelhaas, & Leland, 1974). The 1974 scale,¹ which applies directly to the purposes of the present study, is designed to provide objective descriptions and evaluations of an individual's effectiveness in coping with the natural demands of the environment.

The 1974 revised AAMD Adaptive Behavior Scale is in two parts. Part One, which is of concern to the present study, is organized along developmental lines and evaluates individual skills in ten behavioral

¹As this study was designed in 1980, the Public School Edition of the AAMD-ABS issued in 1981 could not be used. However, the fact that the present study dealt with adults whose ages ranged between 15 and 32 years makes it clear that the Public School Edition was not suitable for carrying it out.



domains related to personal independence in daily living. The ten domains are subdivided into 21 subdomains as follows:

- I. Independent Functioning
 - A. Eating
 - B. Toilet use
 - C. Cleanliness
 - D. Appearance
 - E. Care of clothing
 - F. Dressing and undressing
 - G. Travel
 - H. General independent functioning
- II. Physical Development
 - A. Sensory development
 - B. Motor development
- III. Economic Activity
 - A. Money handling and budgeting
 - B. Shopping skills
- IV. Language Development
 - A. Expression
 - B. Comprehension
 - C. Social language development
- V. Numbers and Time
- VI. Domestic Activity
 - A. Cleaning
 - B. Kitchen duties
 - C. Other domestic activities
- VII. Vocational Activity
- VIII. Self-direction
 - A. Initiative
 - B. Perseverance
 - C. Leisure time
- IX. Responsibility
- X. Socialization

Part Two includes maladaptive behavior related to personality and behavior disorders. This part of the ABS was developed after extensive reviews of the social expectations placed on retarded persons, both in the community and in institutions (Maloney & Ward, 1979).



Importance of Adaptive Behavior
and Its Measurement to Rehabilitation Programs

The value and importance of the acquisition of adaptive behavior skills to independent living and social adjustment by mentally retarded persons cannot be overemphasized. On the other hand, measuring the functional levels of the adaptive behavior of those persons is of great value for both the planning of habilitation programs and the evaluation of the effectiveness of these programs.

The review of pertinent literature revealed that adaptive behavior as measured by the AAMD Adaptive Behavior Scale (ABS) provides a clear, comprehensive picture of the way an individual maintains his or her independence in daily living as well as how he or she meets and deals with social/environmental expectations. This information is crucial for persons responsible for the training and habilitation of the mentally retarded and other disabled persons (Esser, 1975, p. 9).

According to the ABS manual, the scale can be used for the following purposes:

1. To identify areas of deficiency that individuals or groups have, in order to facilitate proper and useful assignment of curricula and placement in training programs.
2. To provide an objective basis for the comparison of an individual's ratings over a period of time in order to evaluate the suitability of his or her current curriculum or training program.
3. To compare ratings of the same individual under different situations, e.g., home, school, ward, etc., in order to study how different environmental factors influence his or her behavior.
4. To compare ratings by different raters in order to gain additional understanding of the relationships between certain raters and persons being rated, e.g., mother and child, father and child, teacher and child, therapist and patient, etc.

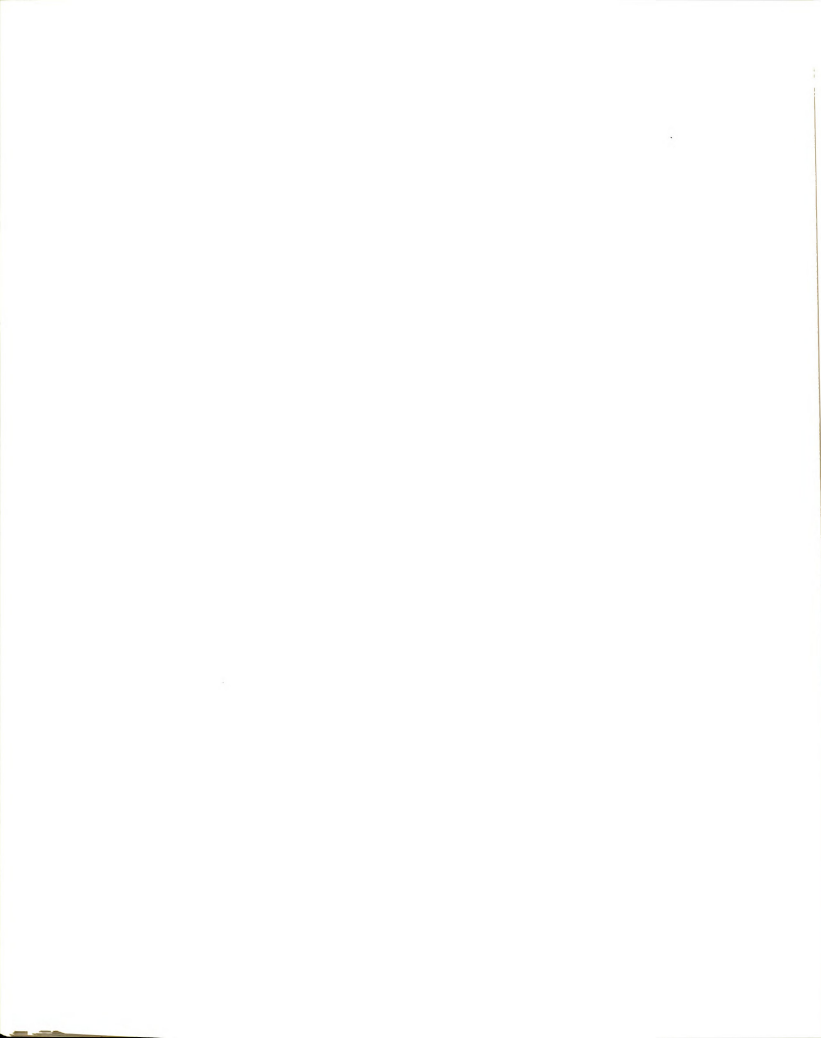
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5. To provide a common medium of information exchange within, as well as between, organizations through a standardized reporting system.
6. To stimulate the development of new training programs and research. (AAMD-ABS, 1974 Revision)

Leland (1978) pointed out that adaptive behavior is the reversible aspect of mental retardation and it reflects primarily those behaviors which are most likely to be modified through appropriate treatment or training methods (p. 28). Leland also explained that if the current level of functioning can be determined, our knowledge of growth and development makes it possible to see if the antecedent behavior was consistent with the current behavior. Furthermore, this makes it possible to ascertain what the next behavior to be trained should be. In this way adaptive behavior measurements lead directly to individual habilitation planning (p. 38).

Leland (1978) maintained that the concept of adaptive behavior must be considered in two realms. The first involves the relationship between adaptation and learning, which is essentially a research realm. The adaptive behavior dimension is not only valuable in the measurement and classification of the mentally retarded, but it also opens a broad new area of understanding in work with all individuals functioning at an "impaired" level.

The second realm, the question of measurement, involves both the utilization of an adaptive behavior scale in terms of the manner in which the material is presented and the treatment and training programs which may evolve from the information derived from the scale. This involves the problem of establishing diagnostic profiles and weighing



the information with the underlying recognition that certain aspects of the data are more meaningful in some situations than they are in others (p. 40).

Nihira (1973) indicated that results of studies performed by the Adaptive Behavior Project maintain that environmental demands and expectations of retardates are believed to be influenced by the personal and cultural background of the rehabilitation workers as well as by the organizational philosophy and the "climate of opinion" in the given social organization. Nihira concluded that "accurate description of environmental demands made on the retardate is an essential prerequisite for the assessment of adaptive behavior and for the development of sound rehabilitation programs" (pp. 110-11).

MacMillan (1977) pointed out that the effectiveness of the treatments provided for the mentally retarded can be determined by studying the extent to which those treated adjust as adults to social demands. MacMillan maintained that knowing the percentage of adults who are capable of functioning independently and determining the dimensions of their behavior that are critical for successful adjustment as adults will help the treatment program in promoting those behaviors (p. 319).

Rationale for Selecting the ABS and Restricting Its Use to Part One

The preceding review was meant to make clear why the present investigator has decided to use the AAMD-ABS as an instrument in conducting this study. In addition to what has been previously reported, the AAMD-ABS is accredited by many researchers as more comprehensive



and exhaustive than other adaptive behavior scales. It was described by MacMillan (1977) as the best comprehensive instrument we have to measure social adaptation. As far as the independent living capabilities are concerned, MacMillan believed that the ABS provides a quantitative description of the individual's skills and habits pertinent to maintaining his personal independence (p. 315).

Gardner and Giamp (1971) compared the AAMD-ABS with three other adaptive behavior scales (the Vineland Social Maturity Scale,¹ the Cain-Levine Social Maturity Competency Scale, and the Comprehensive Behavior Checklist) "for the purposes of differential diagnosis, placement, therapeutic programming and the measurement of change" (p. 352). These researchers concluded that

1. Items on the Vineland scale are less comprehensive than are those on the AAMD-ABS.
2. The Cain-Levine scale is not a suitable instrument for obtaining information about low-level retarded subjects.

Due to the inability of the scale to differentiate within this population, the identification of individual differences is impossible and the scale provides little information as to possible therapeutic programs for consideration. (p. 355)

The AAMD-ABS is more useful in diagnosing and placing mentally retarded persons than is the Cain-Levine scale.

3. The Vineland scale yields a total score that is converted into social age (SA) or social quotient (SQ). This score is interpreted in the same manner as an IQ score. AAMD-ABS scores, on the other hand,

¹The present study was designed before the new edition of the Vineland Social Maturity Scale was published.



can be used to identify the sub-behavioral domains of adaptive behavior.

As Mercer's (1973) concept of adaptive behavior has already been mentioned, her System of Multicultural Pluralistic Assessment (SOMPA) (Mercer, 1979; Mercer & Lewis, 1978) is a battery of measures that attempts to incorporate medical, social, and pluralistic information in the assessment of the cognitive, perceptual motor, and adaptive behavior of black, white, and Hispanic children between ages 5-0 and 11-11 years. Although SOMPA attempts to provide a comprehensive and balanced assessment that allows educational and placement decisions to be made that are not racially or culturally discriminatory, this system was judged inappropriate to be used in the present study for the following reasons:

1. SOMPA restricts the age range, mentioned above, to persons who are younger than the adult subjects of this study.
2. Sattler (1982) pointed out that Mercer's effort has not been entirely successful because no attempt was made to alter test content or to deal with bilingualism on the intelligence test. Furthermore, there are questions concerning the appropriateness of the standardization group for use nationwide, and about the validity of the Estimated Learning Potential score.
3. Sattler also referred to Oakland's (1979a) observation that there is no evidence that the use of SOMPA will lead to educational decisions that are not racially or culturally discriminatory. Sattler concluded his comments by saying that



In fact, no guidelines are presented in SOMPA that show how it can be used in making educational decisions. While SOMPA is an interesting attempt to standardize a number of procedures used in an assessment battery, we must not be misled by claims that have not been empirically supported. (p. 282)

On the other hand, Leland, Shoaee, and Vayda (1975) also suggested that the AAMD-ABS can be used for individual and group purposes regarding diagnosis and planning, placement recommendations, treatment priorities, follow-up, recommendations for program planning, evaluation of existing programs, and environmental planning (p. 6). Leland (1977) identified three general uses for the AAMD-ABS:

1. as a direct report of behavior skills and coping skills that can be used for planning, training, and behavior modification;
2. as a functional instrument for program evaluation; and
3. as an aid to diagnosis and classification.

Moreover, the AAMD-ABS can be used to develop rehabilitation programs. Nihira and Shelhaas (1970) observed that this scale provides an objective individual and behavioral description of mentally retarded individuals that must be interpreted in light of the demands and requirements imposed upon these individuals in their anticipated environment.

Behavior skills required for independent functioning as grouped into domains and subdomains were found to be included in the content of almost all programs suggested by professionals in the field of habilitation training. Space does not allow this brief review to mention these skills as they appear in literature. However, it would be sufficient to name just a few of those researchers. See, for example,



Kolstoe (1976), Payne and Patton (1981), Klein et al. (1979), Payne and Mercer (1975), and Payne et al. (1980).

Moreover, independent living skills training programs, widely offered by independent living programs, were found to build their training programs in one way or another around those domains or sub-domains included in Part One of the ABS. Rating instruments, most commonly Part One of the ABS, are being used in just about every rehabilitation center and workshop facility. As Esser (1975) put it, "Applying a reverse form of logic, you would evaluate rating instruments by saying something like, 'They must be good, or else they would not be used so much'" (p. 1).

While Esser's statement does not imply that all rating instruments are good, because they may have been used as nothing else or better is available, it should be mentioned that many efforts were made to adapt or standardize the AAMD-ABS for use in other countries. Elrousan (1981) used Part One of the ABS, Public School Revision, in an attempt to develop an Arabic-Jordanian adaption of the scale. He reported that

since 1972, the AAMD-ABS has been adopted or standardized for use in Belgium (Magerotte, 1977), Japan (Tomiyasu, 1977), India (Upadhyaya, 1977), Puerto Rico (Reyes, 1978), and the United States (Lambert, Windmiller, Cole, & Figueroa, 1975). There have also been plans to develop Greek, Hebrew, and French versions (Nihira, 1975, p. 1). (p. 15)

However, the researcher has decided not to use Part Two of the AAMD-ABS because it focuses primarily on maladaptive behavior related to personality and behavioral disorders. The review of literature reveals that assessment of adaptive behavior deficits remains somewhat subjective and hazy (Payne, 1979). These deficits vary for one sex or for



different cultures (Klein et al., 1979). Moreover, Part Two suffers from problems with reliability, validity, and norms (Larson & Poplin, 1980).

Chapter Summary

In this chapter, literature was reviewed from three main perspectives. First, a group of definitions on independent living as a goal was reviewed. Second, follow-up research was reviewed in terms of its importance to program planning and evaluation. A number of leading follow-up studies were reviewed regarding both formerly institutionalized retardates and "graduates" of special public school classes. The review indicates that generally such persons are capable of independent functioning in the community. The criteria of "success" and "failure" were found in such studies to be inconsistent. Hence, there is a need for specific criteria of adjustment that are standardized. Third, the concept of adaptive behavior and its relationship with independent living was reviewed. This review indicates that adaptive behavior is intertwined with independence. The AAMD-Adaptive Behavior Scale was also reviewed regarding its usefulness in this particular study. This review indicates that the scale is the best thing we have for measuring the mentally retarded's adaptation to his community. A rationale was made for selecting only Part One of this scale for carrying out the present study.

Effect of a Patient-Centered Care Model on the Management of Patients with Diabetes

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Background: The patient-centered care model has been widely adopted, but its effect on patient outcomes is unclear.

Purpose: To evaluate the effect of a patient-centered care model on the management of patients with diabetes.

Design: A 2-year, randomized, controlled trial.

Setting: A large, tertiary care, academic medical center.

Participants: Patients with type 2 diabetes who were referred to the diabetes clinic.

Interventions: Patients were randomized to either a patient-centered care model or a traditional care model.

Main Results: Patients in the patient-centered care model had significantly better glycemic control (HbA1c) and lower rates of hospitalization and emergency department visits compared with patients in the traditional care model.

Conclusions: A patient-centered care model can improve the management of patients with diabetes.

Keywords: patient-centered care, diabetes, glycemic control, hospitalization, emergency department visits.

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CHAPTER III

METHODS AND PROCEDURES

This chapter describes the procedures used in this study.

Included are discussions of the population, the sample, and sampling methods. Also described are the instruments used in collecting the data, their construction, translation, and pilot testing; the process of collecting the data; and finally methods used for analysis.

Population and Sample

The present study was concerned primarily with measuring the level of independent living of the educable mentally retarded (EMR) who completed their habilitation program at the Mataria Center. It also was concerned with the identification of competencies and skills needed for the independent living of EMR in Egypt. The individuals who participated in this study represented two distinct populations. Following is a description of each population.

First, the mentally retarded population under investigation consisted of those persons who had completed their habilitation program at the Mataria Center in the years from 1976 to 1980. The rolls of the Center graduates indicated that there was a total of 201 persons who graduated during these years (see Table 1). The majority of them were males, representing 91.5% of the total number. The remaining 8.6%, or



17, were females. Of the females, only one graduated in 1976, and no females graduated in 1977.

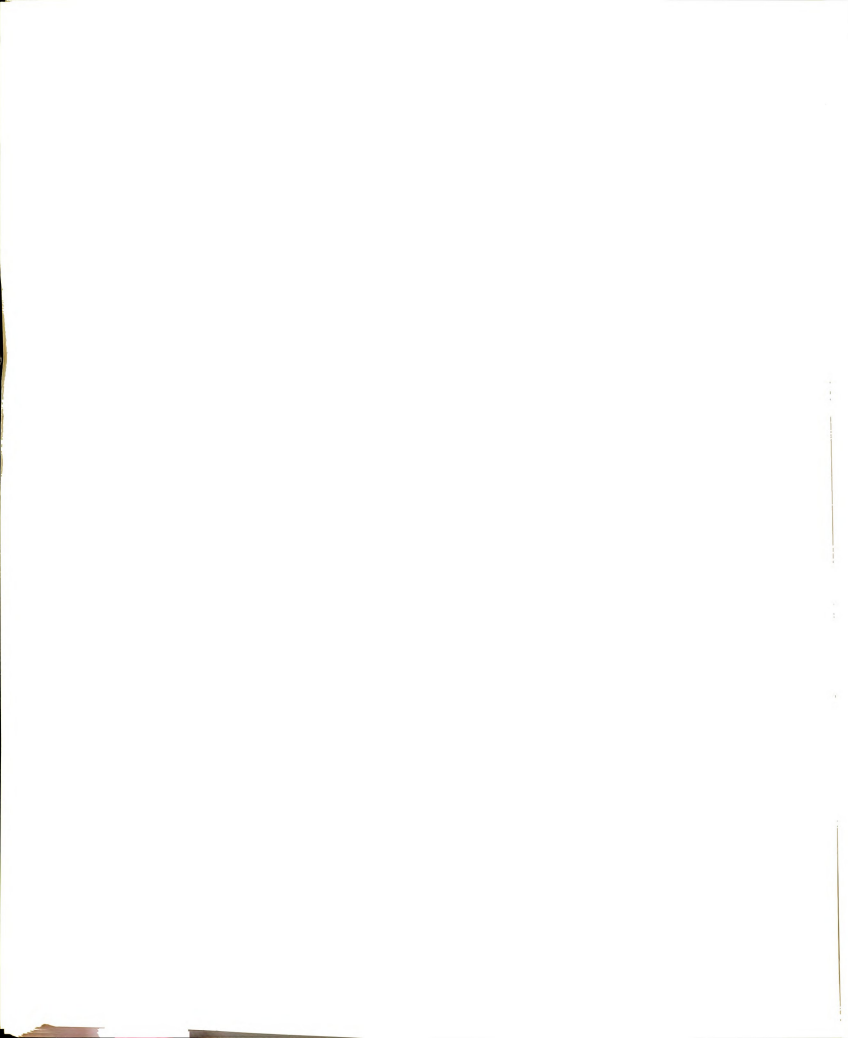
Table 1.--Total population of the Mataria Center graduates from 1976 to 1980.

Graduation Year	Male	Female	Total
1976	25	1	26
1977	44	0	44
1978	33	7	40
1979	30	3	33
1980	52	6	58
Total	184	17	201

According to the files of the graduates in the Center, their intellectual level at the time of admission to the Center was assessed on standardized scales at two to four standard deviations below the mean. The following procedures were followed in sampling this population:

1. In order that subjects of the study be as comparable as possible in terms of parental expectations concerning their competence in independent living, a list was prepared which included all of those who graduated in 1976-1980, and whose intellectual level was assessed at only two to three standard deviations below the mean.¹ The total

¹The classification system adopted by the Center sets the IQ range 50-75 for mildly/educable mentally retarded (Mohamed, 1980, p. 24).



number of graduates who met these two criteria comprised a list of 153 persons.

2. Using tables of random numbers, a random sample of 50 graduates was selected from this list.

3. It was decided that an appropriate member (parent or close relative) of the subject's family would be interviewed and serve as his/her representative in answering questions addressed in the interview. This procedure was judged appropriate for the study based on the following criteria:

a. Mentally retarded persons would be unlikely to be thoroughly knowledgeable about the responses pertinent to their training and skill development. In addition, as the study included somewhat detailed demographic, historical, and current information about the subjects, some of them might not have been capable of addressing those questions that required this detailed and retrospective information.

b. Moreover, Bell et al. (1981) indicated that it is well known that interview responses, particularly from retarded persons, are of questionable validity. Recent analysis done to determine the extent of this problem is not encouraging. Furthermore, Sigelman et al. (1981) stated that

response effects found in the general population appear to be pronounced in mentally retarded populations. In particular, acquiescence is a significant enough problem to make the use of yes-no questions suspect, despite the fact that they optimize responsiveness. To a lesser extent, a tendency to select the last option on multiple-choice questions and to say little in response to open-ended questions are also problems. (p. 127)



4. By the same token, functioning as the subjects' representatives, the parents were divided into two groups of 25 each according to the contents of the interviews conducted with them. This division was done to guard against the contamination of data obtained from the parents. As may be recalled from Chapter I, one of the research questions aimed at determining whether or not the IL competencies and skills as included in Part One of the ABS were acquired by the subjects. Two other research questions aimed first at probing the parents' perceptions of the relative importance of these same competencies and skills for retarded persons to live successfully independently in Egypt, and second at probing their opinion about the impact the Mataria program had had on the development of these competencies and skills in their children. Hence, as will be explained later in the instrument part, it was assumed that if data regarding these three different objectives just mentioned were obtained from all the parents as a whole, it would have been contaminated. For instance, a parent who would rate his/her son or daughter on the ABS as weak in some competency area might tend to devalue the importance of such competencies to the independent living of mentally retarded or to undermine the impact the Mataria program had on the development of his/her son or daughter's competencies. Therefore, the division of the parents of the subjects into two groups was deemed necessary by having the first group only rate their children's IL competencies on the ABS and having the second group only rate the importance of these same competencies for IL and the impact of the Mataria program on their development as well.

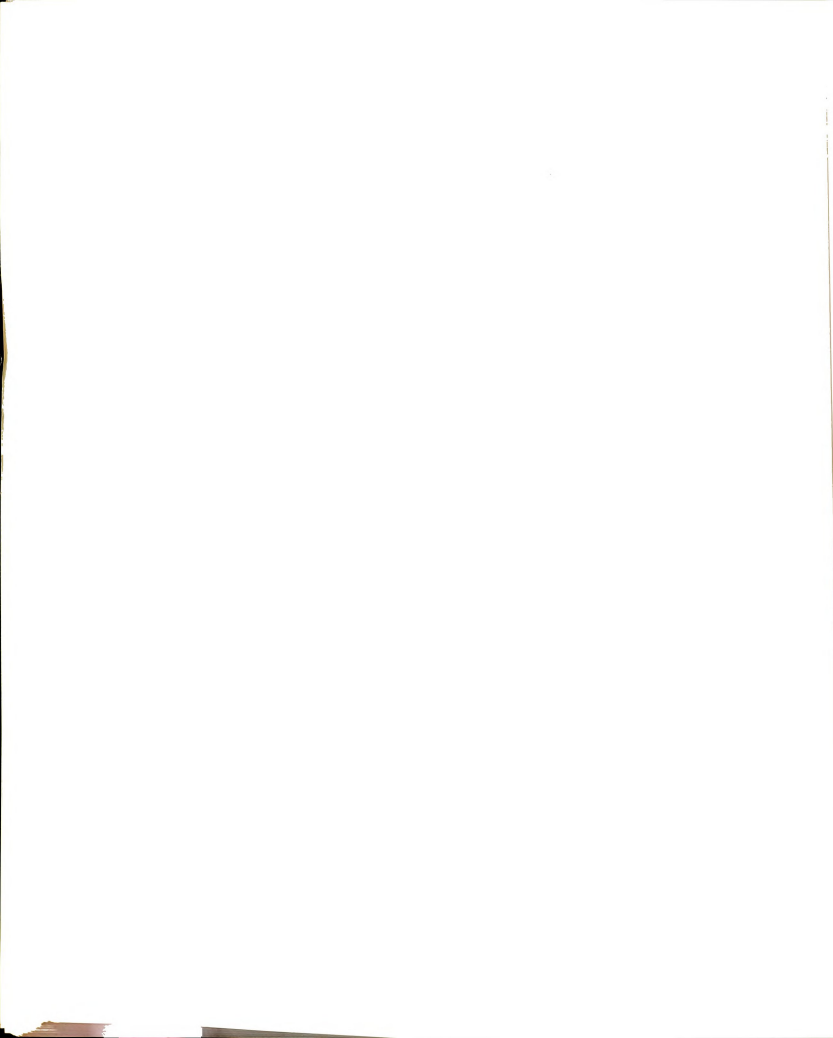


Second, the other population dealt with in this study was intended to comprise all the professional staff members working with the mentally retarded at the Mataria Center. Because of the professionals' daily contact with the mentally retarded, their opinions were thought to be of great value in determining competencies, knowledge, and skills needed for successful independent living in Egypt. These professional staff members serve in different types of positions, including administrator, teacher, social worker, speech therapist, physiotherapist, rehabilitation counselor, psychologist, physician, and psychotherapist. However, as this study was carried out in the summer of 1982, only 35 staff members were able to participate in the study. The remaining members were not required to work during the summer. Consequently, the researcher was unable to reach them. Nevertheless, the total number of professionals reached (35)¹ was judged to be sufficient for meeting the needs of this study.

Instrumentation

To identify and measure the competencies of independent living of the specified population, a four-part instrument was used as the primary tool for collecting necessary data. (See Appendix A. Also see Figure 1.)

¹Five staff members participated only in the pilot study. The remaining 30 participated in responding to the questionnaire given to them.



INSTRUMENTATION PARTS						
Population	Group	PART I: Socio-demographic characteristics of subjects and families	PART II: Vocational and income status of subjects	PART III: IL Competencies on Part One of the AAMD-ABS	PART IV: 78 IL Competency Statements	
					Form A	Form B
					Importance	Importance
Educable retarded graduates of Mataria Center (sample N=50) represented by their parents in interview	One (N=25)	Data were collected from 1. subjects' records at the Center. 2. interviewing the parents of all the subjects in groups <u>one</u> and <u>two</u> .	Data were collected by interviewing the parents of all the subjects in groups <u>one</u> and <u>two</u> .	Data were collected by having parents of group one rate their children's IL competencies.		
	Two (N=25)				Parents of group two rated importance of 78 competencies of IL.	Parents of group two rated program impact on development of 78 competencies of IL.
Professionals of Mataria Center (N=30)						Professionals rated the importance of 78 competencies for IL (questionnaire)

Figure 1.--Study participants and instrumentation parts used in interviews and data collection.



Part One

In this part, eight sets of information were designed to collect socio-demographic data regarding all the subjects in this study. This part was intended to provide data regarding such characteristics as gender, age at interview, place of birth, residency, history of disablement, identification method, subject's age at identification, cause of impairment, IQ, presence of other disabilities, family structure, family educational background, socioeconomic status of the family, exposure of the subject to previous services, age upon admission to the Center, and length of training at the Center. Such characteristics were deemed important as they might have borne upon the independent living status of the subjects and/or the impact of the habilitation program on the improvement of the subjects. Also included in this part were two sets of questions regarding the marital and living status of the subjects. It should be noted that living status as included in this part under section 8 was based upon De Jong's (1981) analysis of living-arrangement outcomes as described in a monograph on independent living.

Part Two

Part Two consists of a set of 13 questions relating to the retarded adult "graduates'" vocational status. This part was used in conjunction with Part One of the instrument, in interviewing all of the parents (or any close relative) of all the subjects of the study to probe information related to the subjects' vocational status. The data gathered in Parts One and Two were designed to be descriptive and to



satisfy the first objective and, partially, the third objective of this study as stated above.

Part Three

Included in this section are the areas of competency necessary for independent living, which is of great importance in the lives of mentally retarded adults. These competency areas were measured as they appeared on Part One of the American Association on Mental Deficiency-Adaptive Behavior Scale (AAMD-ABS) for Children and Adults, 1974 Revision. (See Appendix A.) According to the ABS manual (Nihira, Foster, Shellhaas, & Leland, 1975), Part One includes 66 items organized according to ten behavior domains, which are further divided into 21 subdomains described afterwards as we come to Part Four. These items were determined through item analysis of a number of rating scales used in the United States and Great Britain. Moreover, Part One of the ABS is organized along developmental lines and is designed to evaluate an individual's skills and habits in the ten behavior domains considered important to the development of personal independence in daily living. As previously noted, the investigator judged, after reviewing relevant literature on adaptive behavior, that Part One of the AAMD-ABS was the most appropriate instrument for the objectives of this study.

As will be explained below, Part One of the ABS was included as a tool in the instrument of the study to be used in the interview for rating the IL competencies and skills of the first group of subjects by



their parents. The information gathered from administering this part was intended to satisfy the third and fourth objectives of the study.

Part Four

This part of the questionnaire contained a list of 78 competency statements representing all the areas of skills and competencies thought to be of great importance to the retarded adults' independent living. These 78 statements were modified and constructed, to be used with the parents of the second group, on the basis of the 66 items included in Part One of the ABS. As described above in Part Three, these 66 items were organized according to the ten behavior domains, which were further divided into 21 subdomains. Consequently, the 78 statements included in this part of the questionnaire fall into these domains and subdomains as follows:

I. INDEPENDENT FUNCTIONING (IND)

- A. Eating (4 statements)
- B. Toilet Use (2 statements)
- C. Cleanliness (5 statements)
- D. Appearance (2 statements)
- E. Care of Clothing (1 statement)
- F. Dressing and Undressing (3 statements)
- G. Travel (2 statements)
- H. Other Independent Functioning (8 statements)

II. PHYSICAL DEVELOPMENT (PHY)

- A. Sensory Development (2 statements)
- B. Motor Development (4 statements)

III. ECONOMIC ACTIVITY (ECO)

- A. Money Handling and Budgeting (2 statements)
- B. Shopping Skills (2 statements)



IV. LANGUAGE DEVELOPMENT (LAN)

- A. Expression (5 statements)
- B. Comprehension (2 statements)
- C. Social Language Development (5 statements)

V. NUMBERS AND TIME (NUM)¹ (6 statements)VI. DOMESTIC ACTIVITY (DOM)

- A. Cleaning (2 statements)
- B. Kitchen (3 statements)
- C. Other Domestic Activities (1 statement)

VII. VOCATIONAL ACTIVITY (VOC)¹ (3 statements)VIII. SELF-DIRECTION (SEL)

- A. Initiative (2 statements)
- B. Perseverance (2 statements)
- C. Leisure Time (1 statement)

IX. RESPONSIBILITY (RES)¹ (2 statements)X. SOCIALIZATION (SOC)¹ (7 statements)

The parents of the second group of subjects were asked to react to each of the competency statements included in this part in relation to two separate ideas:

1. The degree of importance each skill or competency has for living independently by retarded adults in Egypt.
2. The degree of impact that the respondents thought the Mataria Center program had regarding the improvement of each skill or competency in their children.

However, the fourth part was designed in two separate forms to be used with two different types of respondents:

¹Domains in which there are no subdomains.



Form A: This was used as a part of the interview with the parents of the second group of subjects. First, in column A of this form and on a scale of 6 points, they were asked to indicate the level of importance they believed each skill or competency had for living independently by their retarded adults. A rating of 1 indicated that the skill or competency was totally unimportant to IL, whereas a rating of 5 indicated that the skill or competency was believed by the parents to be of vital importance to living independently. However, a rating of 0 indicated that the parent did not express his/her opinion regarding the skill or competency or did not judge its importance because s/he had no information about it. Second, the same group of parents were asked in column B of Form A to state their opinion in terms of the degree of impact they believed the Mataria Center program had on the improvement of the skill or competency. Using a six-point scale for this purpose, a rating of 1 indicated that the parents believed the program had no impact on the improvement of each skill or competency, while a rating of 5 would indicate that the program had a maximum impact. Here again, a rating of 0 would indicate that the parent did not express his/her opinion or did not judge the impact of the program on the improvement of each skill or competency because s/he had no information about it.

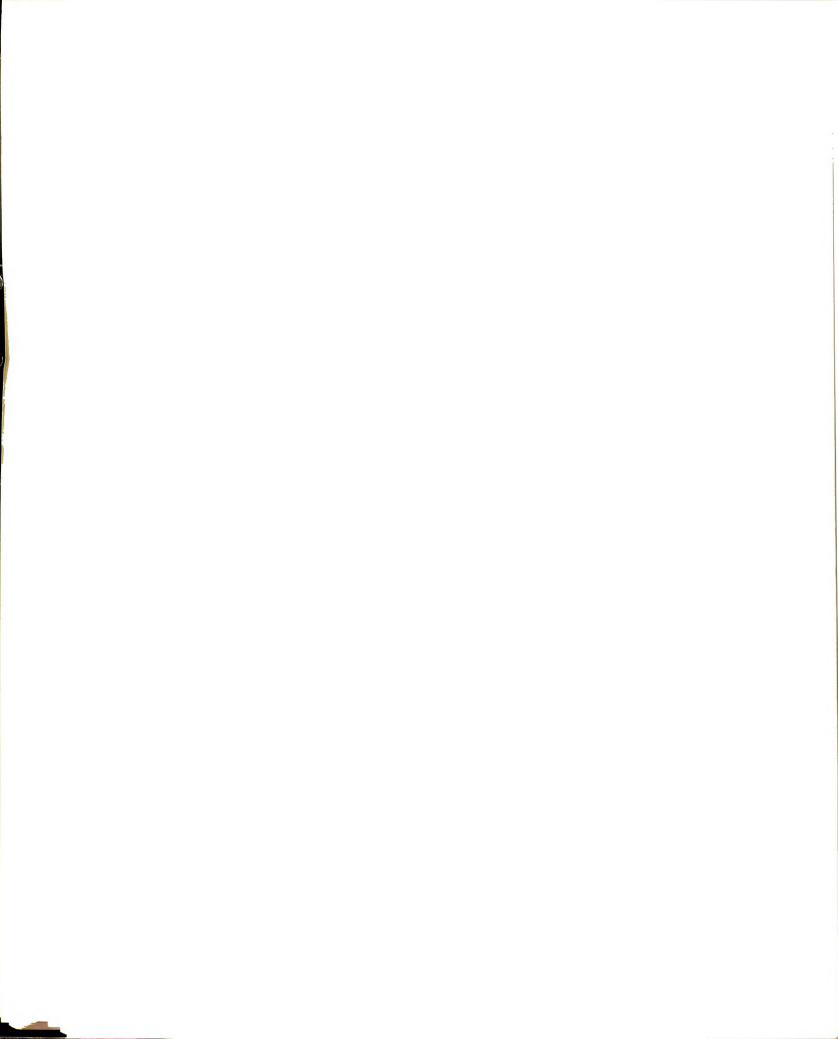
Form B: This was designed to be distributed to the professional staff members working with mentally retarded persons at the Mataria Center. First, demographic information concerning the members' sex, age, type of position, years of work experience with this population, degree held, and category of mentally retarded with which they



exclusively worked was sought. Second, in the same manner in which the second group of parents were asked on Form A to rate the importance of each skill or competency to independent living, the professionals were given their special form which included the same skills or competencies and instructed to rate their importance relating to EMR's IL using the same scale mentioned in Form A. The information gathered from the fourth part of the questionnaire was used to satisfy objectives 2, 5, and 6 of this study.

Instrument Translation and Pilot Testing

The instrument used in this study consisted of four parts. The first, second, and fourth parts were designed and constructed by this researcher and then reviewed and approved by his doctoral guidance committee. Later, they were translated into Arabic. However, for the third part of the instrument, which was Part One of the AAMD-ABS, the researcher was advised by his doctoral guidance committee to seek a version previously translated into Arabic for the sake of convenience and time. At that time, an Arabic version of Part One of the ABS was located. As noted earlier, in an attempt to make available a Jordanian adaptation of the AAMD-ABS, Public School version, Alrousan (1981) had translated and administered this part of the scale to a sample of Jordanian mentally retarded children as well as nonhandicapped children. Alrousan's study found that the Jordanian ABS had a concurrent validity in terms of its ability to discriminate among different functioning and age levels. The reliability reported ranged from .9110 to .3756. As the present writer examined the Arabic



Jordanian version in an attempt to use it in this study, he found that although it conformed to the original Public School version developed in 1974, ten items were deleted from this version for public school children in contrast to the version developed for institutionalized children and adults, which was of concern to this study. Those ten items are:

- (6) Self-Care at Toilet
- (10) Tooth Brushing
- (11) Menstruation
- (16) Undressing at Appropriate Times
- (44) Room Cleaning
- (45) Laundry
- (46) Table Setting
- (47) Food Preparation
- (48) Table Cleaning
- (49) Other Domestic Activities

Accordingly, two efforts were made by this researcher to use a complete Arabic translation of Part One of the ABS. First, he needed to translate those ten items deleted from the Arabic Jordanian version and add them to the Jordanian version. Second, as the researcher undertook this translation, he contacted Dr. Henry Leland, Professor and Chief of Psychology, Ohio State University, asking for any information regarding whether or not any Egyptian attempt had been made to translate the ABS. Dr. Leland informed the researcher that no significant attempt had actually been made as far as he knew. However, he kindly provided the researcher with specific procedures that should be followed in any acceptable translation of the ABS. These procedures were followed in translating the ten items missing from both the



original English version and the Jordanian adapted version for public school children.

Upon the researcher's arrival in Egypt in July 1982, both versions of the entire instrument used in this study were presented to a panel of experts in the Egyptian Institute for Program Evaluation for verification. As this panel included two post-doctoral candidates who were majoring in rehabilitation counseling at Michigan State University (MSU), they undertook the translation of the Arabic version back into English and then compared it with the original English form. The panel reviewed the terminology the writer used in his translation to determine its conformity with concepts in the Arabic language.

However, as this panel started looking at the translation of Part One of the AAMD-ABS, the writer was surprised when he was told by the panel that the ABS had been translated into Arabic by an Egyptian professional who had been working with mentally retarded persons for several years in Egypt. In addition, this Arabic Egyptian version had been used in the field for more than a year on an experimental basis in an attempt to establish its applicability, validity, and reliability. Consequently, because both the Jordanian version, along with the ten items translated and added to it by the writer, and the Egyptian version had been translated following procedures that were quite similar to those of Dr. Leland, the panel decided to compare both versions of Part One with each other on one hand, and with the original English version of the AAMD-ABS on the other. This was done in an attempt to solidify the Egyptian version. The only difference found by this panel



was in the number of statements in items 19, 20, and 40. In item 19 (Public Transportation), the following two statements read:

Rides subway or city bus for unfamiliar journeys independently.

Rides suburb or city bus for familiar journeys independently.

This item was found to be broken down into four statements on the Egyptian version:

Rides city bus for unfamiliar journeys independently.

Rides city bus for familiar journeys independently.

Rides suburb subway or bus for unfamiliar journeys in other cities independently.

Rides suburb subway or bus for familiar journeys in other cities independently.

In item 20 (Telephone), the Egyptian version added one more statement to the five statements already found in the English and corresponding Jordanian version. It reads:

Knows how to use telephone in order to call another person.

In item 40 (Miscellaneous Language Development), the two statements

Obviously responds when talked to.

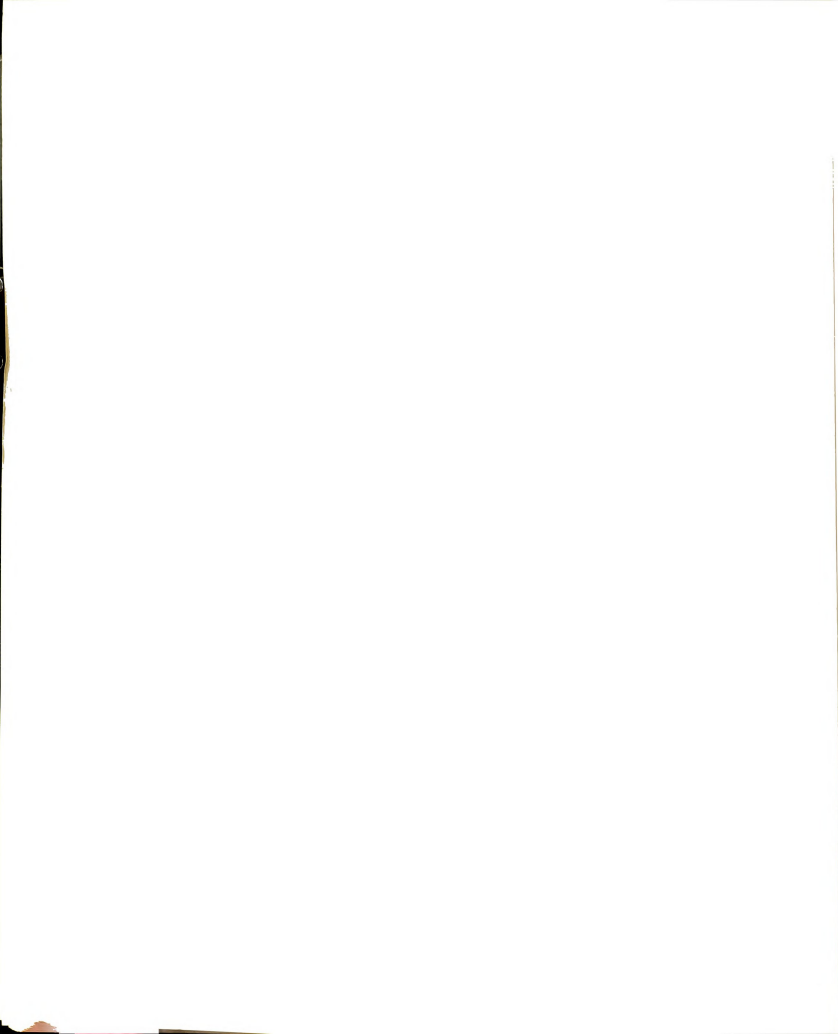
Talks sensibly.

were integrated into one statement on the Egyptian version to read:

Talks sensibly and obviously responds when talked to.

The above change was probably due to some cultural differences that necessitated it.

Nonetheless, the panel concluded its review and comparisons by verifying that, despite these minor differences in the number of statements mentioned above, both the Arabic Jordanian translation, in

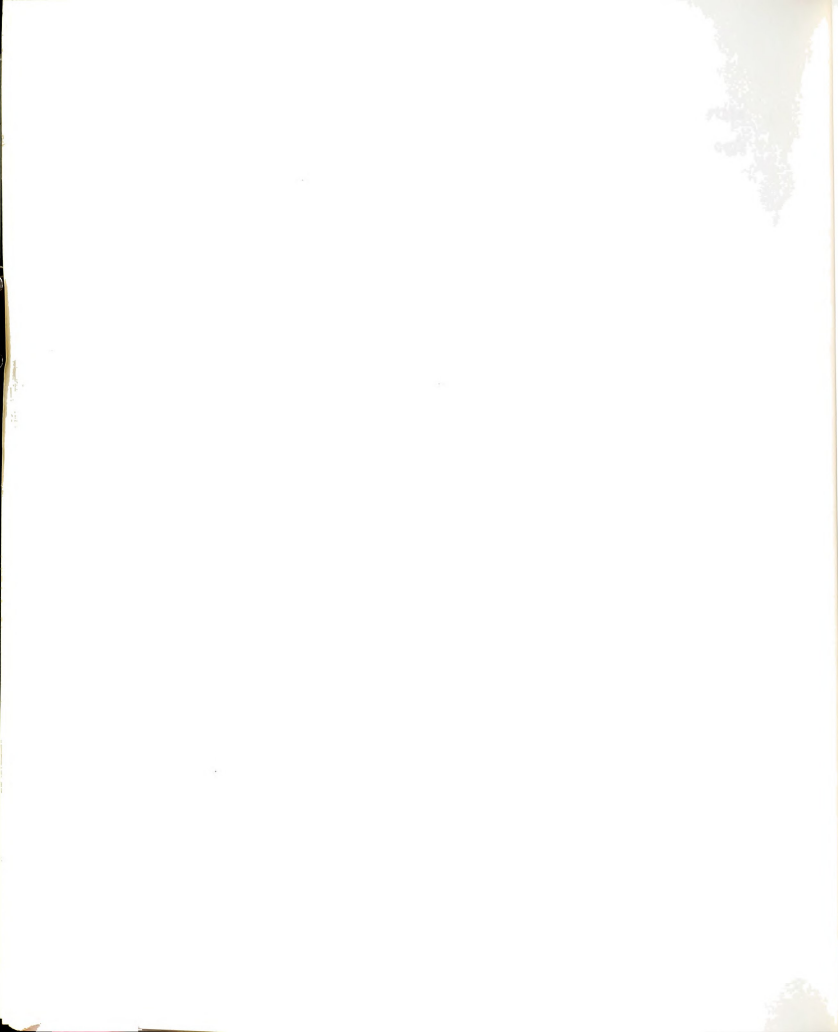


addition to the ten items completed by this author, and the Arabic Egyptian translation were honest, accurate, and valid. The writing style of each translator was found not to affect the comprehensibility of the scale in any manner. Hence, the writer decided to use the Egyptian version since the field staff who cooperated in conducting the interviews with the study's subjects were more accustomed to the style and organization of the Arabic Egyptian version.

After the translation of the instrument was verified by this panel, a pilot test was conducted to obtain an estimation of the clarity and applicability of the instrument and to measure the approximate completion time. The first and second sections and Form A of the fourth section were pretested with three subjects who were very similar to but not included in the study sample. The third section, the ABS, was pretested with three other subjects as well. Form B of the fourth part was pretested with five staff members other than the ones who participated in the study. The main changes that occurred as a result of the pilot testing were made in parts 1, 2, and 4, mostly in the grammatical structure of the items rather than in any substantive way. The results of the pilot test of Part One of the ABS indicated that the scale was clear, comprehensible, and straightforward. The entire instrument was then printed in its final format for use.

Procedures of Data Collection

Three procedures were used to collect data sought for this study. First, basic information regarding each subject's name, address, age at admission to the Mataria Center, history of disablement, tests used in



assessing the subject's intellectual level upon admission, and length of training was collected from the files of the subjects at the Center. Second, socioeconomic data regarding all the 50 subjects and their families, as well as their marital, living, and vocational status, were collected by interviewing the representatives of the subjects at their homes and by using the first and second parts of the questionnaire. Other data collected differed according to the nature of data desired for realizing the objectives of the study. Therefore, Part One of the AAMD-ABS was administered only to the first group of subjects who were randomly selected for carrying out this task and through the interview method explained by the AAMD-ABS manual (Nihira et al., 1975). On the other hand, data regarding the parents' perceptions of the importance of independent living skills and competencies as well as the impact of the Mataria training on improving these skills and competencies were collected from the second group of subjects' parents. Hence, using the first two parts of the questionnaire with all the subjects of the study, the third part of the questionnaire (Part One of the ABS) only with the first group of subjects, and Form A of the fourth part with only the second group of subjects, the parents were interviewed in their homes at convenient times. All the subjects' addresses were easily located as they all lived in different suburbs of Cairo.

The interviews were conducted by a field staff consisting of 14 skilled and well-trained rehabilitation counselors and psychologists who held either B.S.W. or B.Ed. degrees and had a long history of involvement in research work. All of the interviewers were well



acquainted with the habilitation terms and system. The 14 members of the field staff selected by the Egyptian Institute for Program Evaluation for conducting the interviews were invited to a short training session, which lasted for two days. The training session was directed by both the writer himself and the General Director of the Institute, a post-doctoral graduate from MSU. The bulk of the training was devoted to developing a thorough understanding of the intention of each part of the questionnaire and standard techniques of both interview and scoring, as specified by the ABS manual. The interviewers were also instructed to ask the questions slowly and without subtle pressure for a hurried response and to develop a sense of trust and privacy before questioning. Anxieties and fears that some respondents might have had must be respected and addressed.

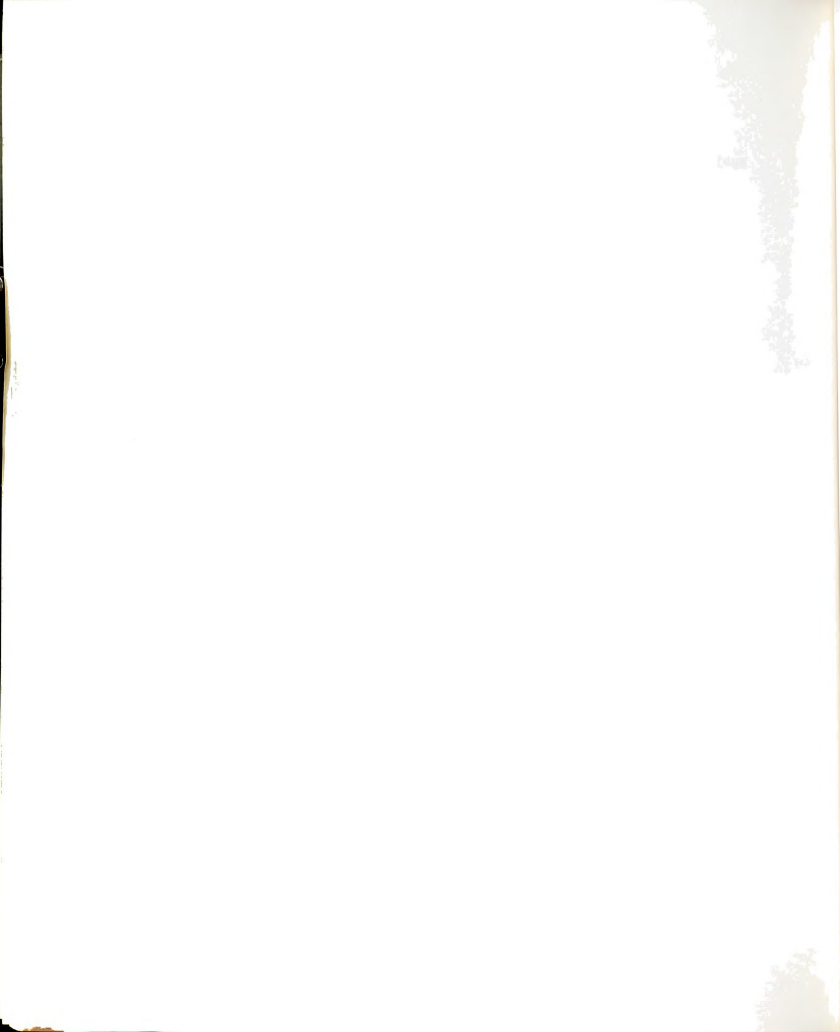
It was decided that the field staff be divided into two groups. First, five psychologists would be conducting five interviews each with the first group of parents as they had good experience in administering the ABS. Second, five rehabilitation counselors would be conducting five interviews each with the second group of parents, who were to respond to the questionnaire parts previously specified. It was also decided that two pairs of the field staff would be working at the Institute office on reviewing the data collected from the interviews. Such a review included the information collected from the subjects' files as well as the accuracy of scoring the ABS booklets according to the scoring procedures described by the ABS manual (see Nihira et al., 1975, p. 11).



Thus far, the procedures followed in collecting data from the subjects of the study have been described. As for the data collected from the professional staff members, Form B of the fourth part of the research instrument was distributed on August 10 and collected on September 1, 1982. To assure both anonymity of respondents as well as delivery, questionnaires were distributed in person by the writer to each respondent. The investigator made himself available to participants through periodic visits to the Mataria Center to answer any questions they might have had regarding the questionnaire. All of the 30 questionnaires distributed were gradually completed, collected, and then reviewed by the field staff members designated for data-reviewing tasks. All the types of data sought for this study were totally collected and carefully reviewed by September 3, 1982.

Treatment and Analysis of the Data

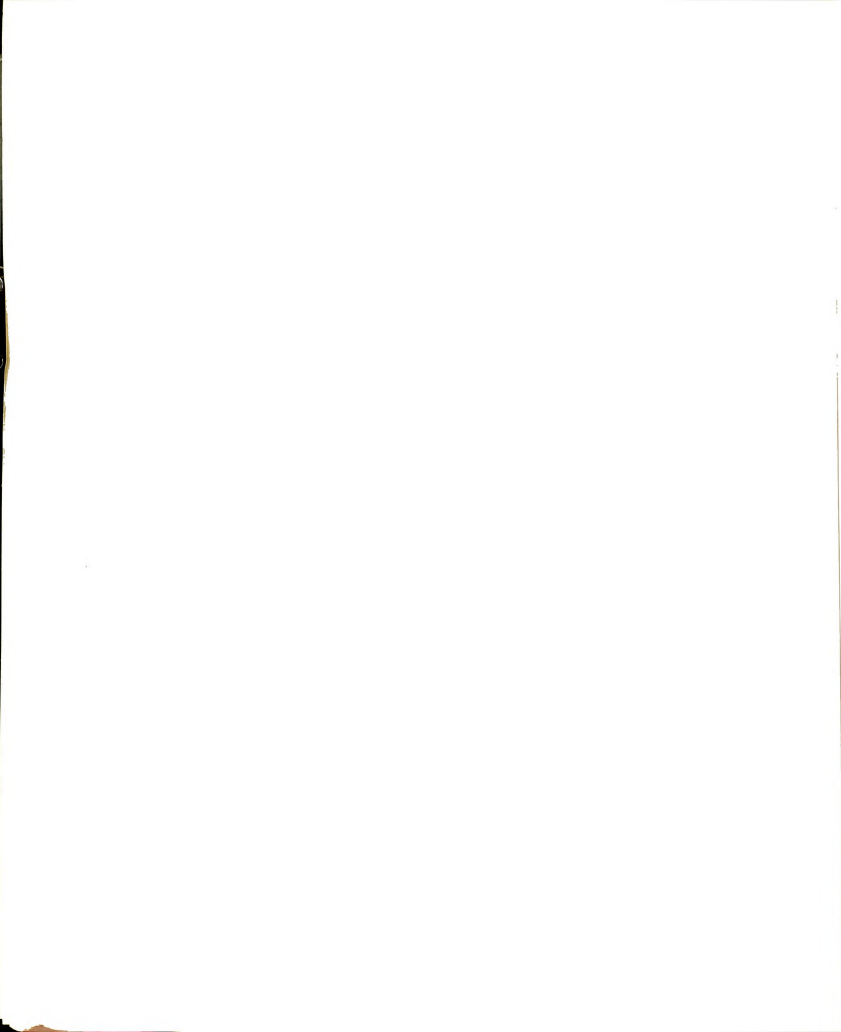
Data for this study were first coded and translated into computer program sheets. Coded responses along with the data sheets were given to the scoring office at the MSU Computer Center for filing and processing. Before the process of analyzing the data, the researcher consulted with both the research consultant staff at MSU's College of Education and the statistical consultants at the Computer Center. Statistical procedures and types of tests most appropriate for this study were discussed and selected upon these consultations. Then the data files were given to the Applications Programming Office at MSU's



Computer Center for analysis using the Statistical Package for the Social Sciences (SPSS) (Nie et al., 1975).

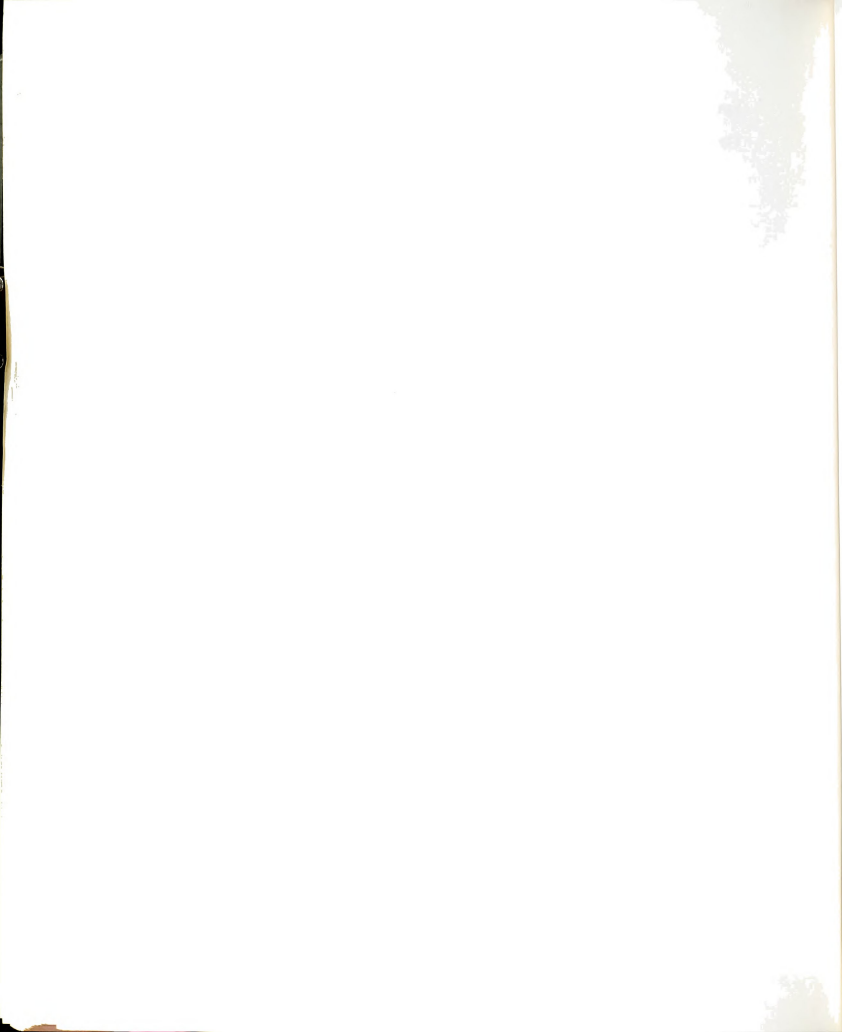
The statistical analysis of the data used, for the most part, descriptive statistics (mean and standard deviation), frequencies, and t-tests. Descriptive statistics, as described by Barnett and Weisinger (1975) "concerns itself with collecting, tabulating, summarizing and presenting data for the purpose of describing a population or a program. Its usefulness is the reduction of large masses of data into a meaningful form." Hence, in analyzing data collected on the "graduates" socio-demographic characteristics, vocational status, income level, living status, and marital status, tables were used indicating frequency distributions of the responses for these characteristics.

With respect to the analysis of the "graduates" IL competencies and skills as measured by the ABS, the subjects' domain and subdomain scores were used. When the researcher attempted to apply descriptive statistics (mean, standard deviation, maximum and minimum scores, and range) on the domain scores in order to compare them with an appropriate reference group of a similar age of the American normative sample, a certain problem emerged. The ABS manual reports the means and standard deviations for the normative sample according to three major characteristics of the normative sample. These are sex, age ranges, and intelligence levels, as measured by the Revised Stanford-Binet Test. As the study sample was randomly divided into two groups, it was found, after the initial analysis, that the sample was heavily loaded with a large majority of male subjects whose ages corresponded to one



age range of 19-29 specified by the ABS manual. Moreover, this majority of male subjects had IQ points that ranged between 67-52 and corresponded to the second level reported by the ABS manual. On the other hand, there were a few subjects (six) who were either of relatively higher or lower ages and intelligence levels than the vast majority of the group subjects or of different sex. Furthermore, the intelligence levels of most of these few cases were measured by the WISC, as opposed to the IQ levels of the majority, which were measured by the Stanford-Binet Test, which is well known for being highly verbal. (See Appendix B.) Therefore, it was found that including these very small numbers of subjects in the comparison of the Egyptian sample to the appropriate American normative samples would make the results invalid. Consequently, after consulting with a statistician at the MSU Computer Center and some members of the researcher's guidance committee, those rare cases were omitted from the analysis of the comparison, reducing this group from 25 to 19 subjects who belonged to both one age group and one IQ level. Hence the means and standard deviations of the major domain raw scores of these 19 subjects were compared to those of the appropriate normative group in the American sample. A t-test was used in this comparison with an alpha level of .05 to determine the level of significance.

The comparison mentioned above was deemed necessary for a twofold purpose. First, using the American norm as a reference base for the comparison and evaluation of the performance of the Egyptian group would put the reader at ease in understanding their performance



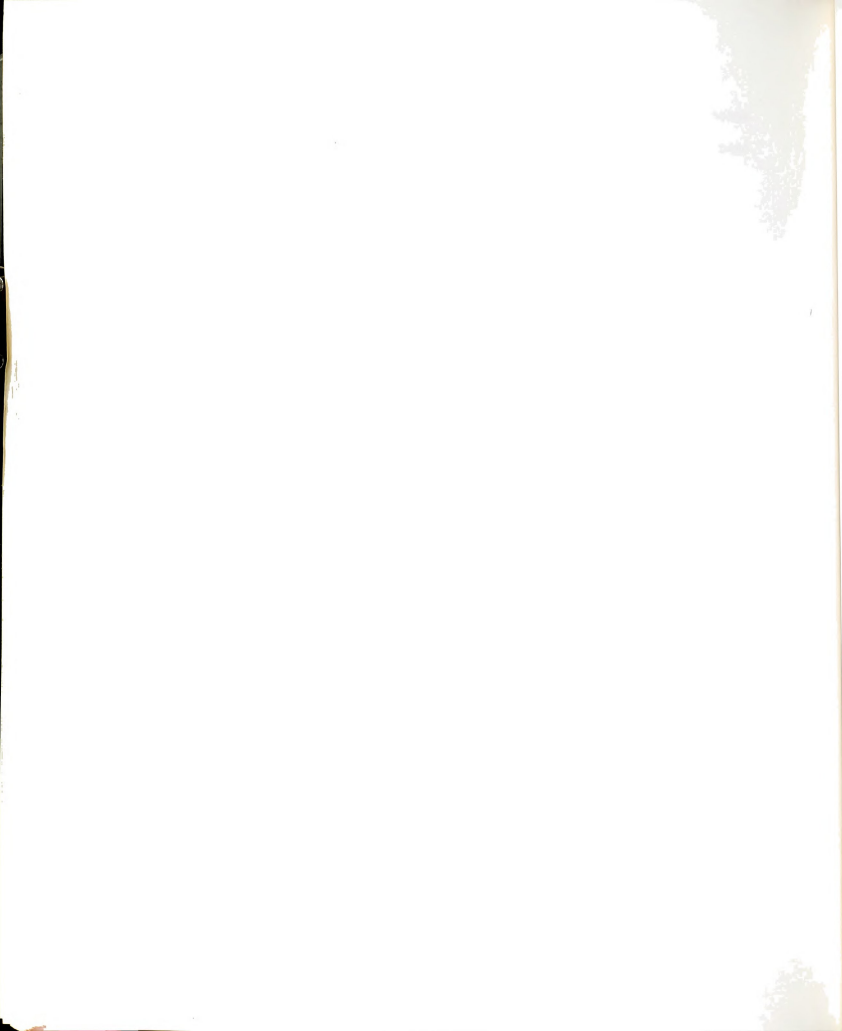
patterns. Second, this comparison would determine whether or not the two cultures had similar standards for the IL of the same age group of educable mentally retarded persons.

However, in analyzing the overall strengths and weaknesses of all the subjects with respect to their performance in daily living areas, the norms and other psychometric characteristics were not considered necessarily relevant for this part of the analysis. Therefore, the means and standard deviations of the raw scores for all the subjects on all domains and subdomains were used in the data analysis. Since some domains and subdomains have maximum scores higher than the others, and in order to provide a common base for the analysis of the strengths and weaknesses that might be found in the subjects' performance, it was decided that the means and standard deviations of the original raw scores would be converted to percentages, as suggested by the ABS manual. By the same token, since four of the ten major domains have no subdomains (see p. 81), they were included as subdomains for further analysis of the subjects' performance. Therefore, the means and standard deviations of both domains and subdomains were rank ordered to determine the strengths and weaknesses.

With respect to analyzing the overall perception of respondents from group two as well as the staff members group on the importance of each of the 78 statements included in the fourth part of the instrument, descriptive statistics were performed to determine the frequency distribution, means, and standard deviations for each statement. Subsequently, those means and standard deviations were rank ordered



according to the importance perceived by both groups. A t-test was used here with an alpha level of .05 to determine whether or not any significant difference existed between the perception of the two groups on the importance of the statements. Consequently, the perceived impact of the Mataria training program on the improvement of the 78 skills or competencies, as perceived by the second parent group in Form A of the instrument, was analyzed using means, standard deviations, and rank-order statistics. Finally, it should be mentioned that respondents who indicated, on the fourth part of the instrument, Forms A and B, that they had no opinion or no information regarding either the importance of the statements or the impact of the Center on their improvement were counted in the frequency distribution but not in counting the mean and standard deviation. The following chapter presents the results of these analyses.

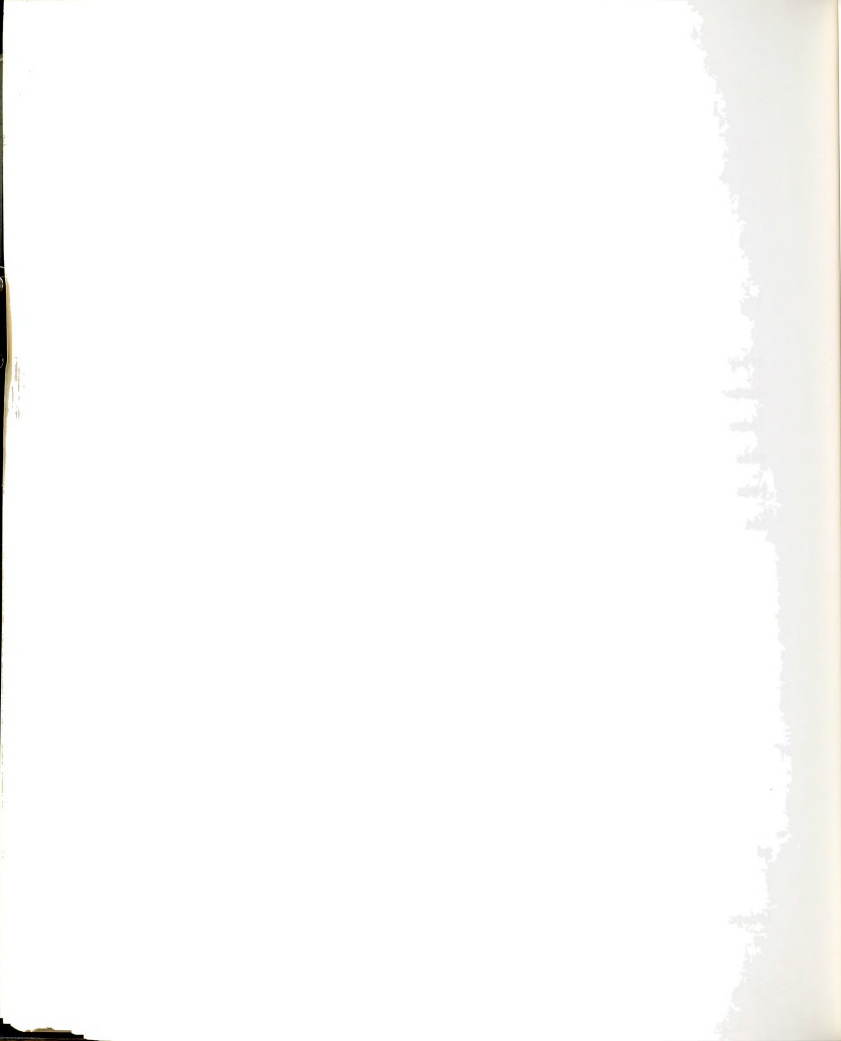


CHAPTER IV

PRESENTATION OF THE RESEARCH ANALYSIS

Introduction

The primary purpose of this study was to describe a selected group of educable mentally retarded adult graduates of the Mataria Center program relating to their socio-demographic characteristics and independent living status. It also aimed at the identification of the areas of competency and skills perceived by parents and mental retardation professionals as important for EMR to live independently in the community and at identifying the impact the Mataria Center had on the development of these competencies and skills as perceived by the parents of the "graduates." In this chapter, findings related to these purposes are reported in four sections. The first section describes the "graduates" of the Mataria Center who participated in the study in terms of their socio-demographic characteristics. The second section reports analyses of the findings related to the independent living status of the Mataria "graduates." Described in this section are vocational status, living status, and marriage status, in addition to the "graduates'" status regarding independent functioning and social adjustment as measured by the AAMD-ABS. The third section presents findings with respect to the participants' ratings of the importance of independent living competencies and skills. Also in this section,



differences between the parents' perception and the professionals' perception regarding the importance of IL competencies and skills are stated. The fourth and final section reports findings related to the impact of the Mataria program on the improvement of those competencies and skills as perceived by the parents. Presenting the findings in those four sections mentioned above conforms to the seven objectives of the study previously mentioned in Chapter I.

Socio-demographic Characteristics of the "Graduates"

Before presenting the study findings on the independent living status of the Mataria "graduates," it is important to consider their socio-demographic characteristics. A basic familiarity with these characteristics will help to situate the findings related to their lives' aspects and independence. The data related to these characteristics were collected through the use of the first part of the instrument as described in the preceding chapter.

General Information

Sex and age.--Two features of the study group immediately stood out. As can be seen from Table 2, the "graduates" of the Mataria Center were predominantly males (78%). A question on the subjects' age at the time they were interviewed revealed that the vast majority of the "graduates" involved in this study were in the third decade of age. As indicated by Table 3, 36 or 72% were between the ages of 21 and 30. The subjects' ages ranged from 15 to 32, with an average age of 23.4 years.



Table 2.--Distribution of subjects by sex (N = 50).

Sex	Number	Percent
Male	39	78
Female	11	22
Total	50	100

Table 3.--Distribution of subjects by age (N = 50).

Age Group	Number	Percent
15-20	12	24
21-25	23	46
26-30	13	26
31 and above	2	4
Total	50	100

Both distributions in Tables 2 and 3 were not unexpected since the Mataria Center's clients are mostly males, and the female retarded can be admitted to another center located in another suburb of Cairo that is exclusively designated to serve females. Also, the high proportion of subjects of older ages may be due to the relative restriction of admission age by the Mataria Center as designated to train adolescent clients.

Place of birth and residency.--Table 4 categorizes the subjects according to where they were born, where they had been living, and the number of years they had been living in the present place of residency.

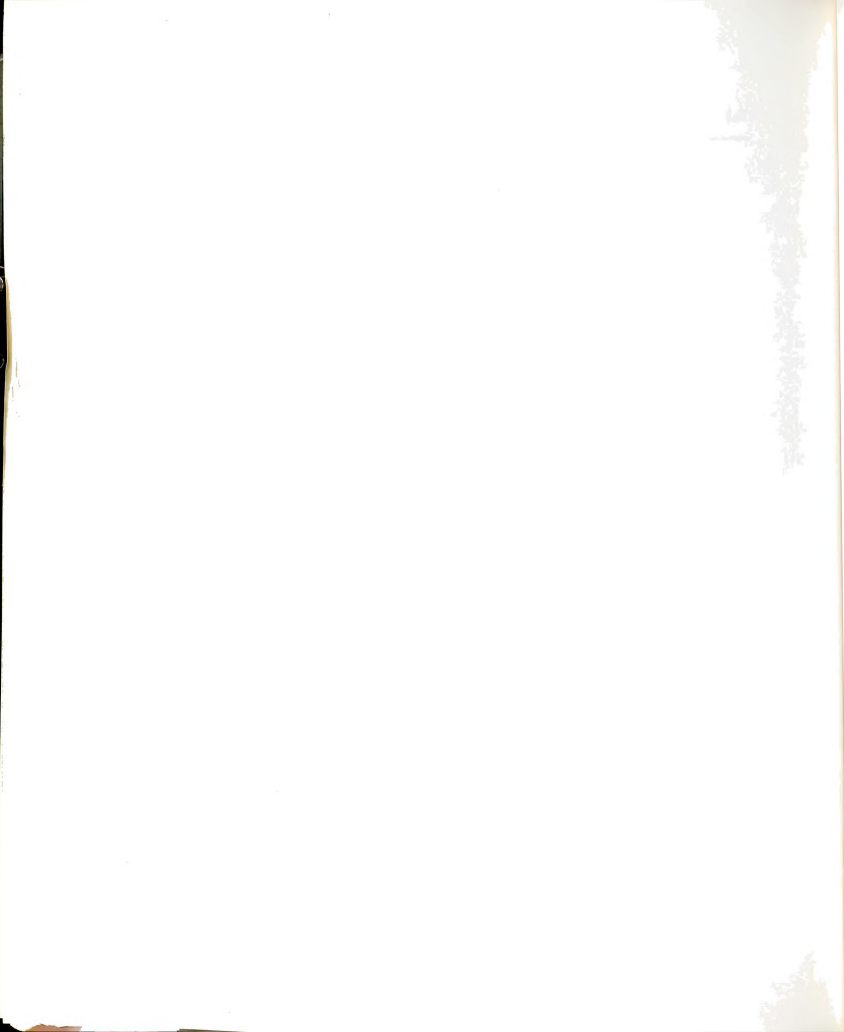


Table 4.--Distribution of subjects by birth place, residency, and number of years living in present residency (N = 50).

Category	Number of Years Living in Present Residency	N	%	Total	
				N	%
Born and lived in the same place in Cairo	Since birth	25	50	25	50
Born in Cairo and moved to live in a different suburb in Cairo	2-5	4	8		
	8-11	2	4		
	12-16	6	12	12	24
Born in rural areas away from Cairo and moved to live in Cairo	17-20	7	14		
	21-25	6	12	13	26
Total		50	100	50	100

Table 4 shows that 74% of the subjects were born in Cairo and had been living in it either in the same place of birth or in a different suburb of Cairo. While 26% were born in different rural areas away from Cairo, all of them moved with their families to Cairo and had been living in it for a minimum of 17 years. This means that all the subjects of the study were living in Cairo at the time of the study.

History of Disability

The majority of the group subjects were identified as mentally retarded between the ages of 6 and 13. As Table 5 displays, 28% of the subjects were identified as mentally retarded either since birth or after birth between the ages of three and five, while 64% were



identified between the ages of 6 and 13 by the time they got to school or during school years. This would reflect the fact that more cases of mental retardation are identified during school years than during the pre- and postschool years.

Table 5.--Distribution of subjects by identification age (N = 50).

Identification Age	Number	Percent
Since birth	9	18
After birth between ages 3-5	5	10
At ages between 6-13	32	64
Unknown	4	8
Total	50	100

As can be seen from Table 6, 28 of these subjects or 56% were identified mostly by school teachers or by a school clinic and/or psychologist. A very few subjects were identified by a family doctor or by a hospital. While 11 were identified by their parents, seven were identified by persons other than those mentioned above. As the parents of those seven subjects indicated, they were identified by a neighbor, relative, or a friend of the family.

When the parents of those subjects were asked about whether or not they knew the major cause of their children's mental retardation (MR), a great majority of them mentioned an unknown cause. As Table 7 shows, 72% were of unknown cause. While 18% were mentioned by their parents to be congenitally mentally retarded, 10% were caused to be



mentally retarded by diseases or accidents. Diseases mentioned by the parents included rubeola, mumps, meningitis, and whooping cough. Such diseases occurred at very early stages of those subjects' lives, or in the uterus.

Table 6.--Distribution of subjects by method of identification
(N = 50).

Subject Was Identified by	Number	Percent
Parents	11	22
Family doctor	3	6
Hospital	1	2
School teacher	23	46
School clinic	3	6
School psychologist	2	4
Others	7	14
Total	50	100

Table 7.--Distribution of subjects by major cause of mental retardation (N = 50).

Major Cause of MR	Number	Percent
Congenital	9	18
Diseases	4	8
Accident	1	2
Unknown	36	72
Total	50	100



The parents were asked to indicate whether or not they had a kinship (i.e., blood relative) before marriage. Table 8 shows the distribution of the subjects' parents according to kinship and the prevalence of mental retardation among their children. As 30% or 15 parents had a kinship before marriage, 3.0% of their offspring were mentally retarded. On the other hand, the prevalence of mental retardation among the offspring of parents who had no kinship before marriage was 2.2%.

Table 8.--Distribution of subjects by parents' kinship and prevalence of mental retardation in the parents' offspring.

	N	%	Total Number of Children	Number of Mentally Retarded Children	Total	
					N	%
Parents had a kinship	15	30	99	3	3	3.0
Parents had no kinship	35	70	227	5	5	2.2
Total	50	100	326	8	8	5.2

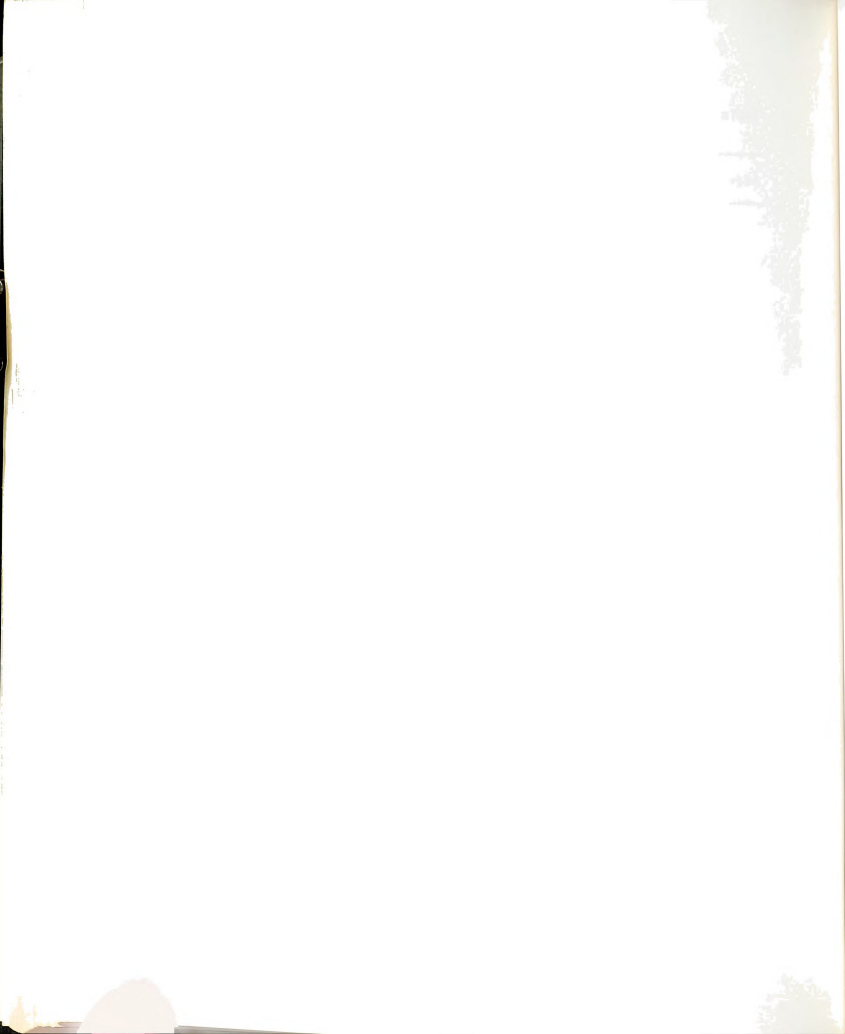
Approximately one-third of the subjects of this study suffered from either one or a combination of additional disabling conditions. As can be seen from Table 9, 14% suffered from speech defects, 14% were either spastic or epileptic, and 6% had a hearing defect, squinting (visual defect), or a physical deformity.



Table 9.--Distribution of subjects by suffering from other disabling conditions (N = 50).

Additional Disabilities	Number	Percent
Speech defects	7	14
Hearing defects	1	2
Squinting (visual defect)	1	2
Spasticity	5	10
Epilepsy	2	4
Physical deformity	1	2
None	33	66
Total	50	100

Table 10 presents the subjects' IQ as it was assessed upon their admission to the Mataria Center. As previously indicated in Chapter III, the range of IQ was restricted between -2 to -3 standard deviations for randomly sampling the subjects dealt with in this study. As those subjects were divided into two groups for the purpose of this study, Table 10 indicates that the two groups of subjects were homogeneous in terms of their IQs. Twenty-four percent had IQs between 50 and 54, and another 24% had IQs between 55 and 59. While 16% had an IQ of 60 to 64, 36% had IQs of 65 to 70. Tests used in assessing those individuals were, according to the Mataria Center's records, either the Stanford-Binet, for the most part, or the Wechsler Intelligence Scale for Children (WISC-R) in a few cases. (See Appendix B.) It seemed that no other tests were used by the Center in assessing the intellectual levels of persons who were admitted to the Center. Those tests mentioned above were translated and standardized on Egyptian



samples. However, the forms and norms of these translated tests are out of date (Mohamed, 1982).

Table 10.--Distribution of subjects by IQ (N = 50).

IQ	Group One (N=25)		Group Two (N=25)		Total	
	N	%	N	%	N	%
50-54	6	24	6	24	12	24
55-59	6	24	6	24	12	24
60-64	4	16	4	16	8	16
65-70	9	36	9	36	18	36
Total	25	100	25	100	50	100

Socio-demographic Characteristics of the "Graduates'" Families

Family structure.--The analysis of the results dealt also with socio-demographic characteristics of the subjects' families. Describing them was deemed important since these characteristics might have contributed to the improvement or impediment of the independent living status of the subjects. Table 11 shows the distribution of the subjects' parents according to whether or not the parents were alive at the time of the interview. Twenty-eight percent of the subjects' fathers were dead. Only one subject had lost his mother, whereas both parents of the majority of the subjects were alive.



Table 11.--Distribution of subjects by parents' life or death (N = 50).

Parents' Status	Number	Percent
Both parents are alive	35	70
Only father is alive	1	2
Only mother is alive	14	28
Both parents are dead	0	0
Total	50	100

Table 12 displays the distribution of the family members of the subjects by their family size. The average size of the families from which these "graduates" came was 6.52. This included the parents and subjects. While the majority of the subjects came from families with relatively large sizes, a great majority of them (64%) were born at the first or third order of birth among their siblings, as can be seen from Table 13.

Table 12.--Distribution of the "graduates" by family members (N = 50).

Family Size	Number	Percent
2	1	2
3	2	4
4	7	14
5	6	12
6	12	24
7	9	18
8	3	6
9	2	4
10	5	10
11	3	6
Total	50	100

Median number in family = 6.5.

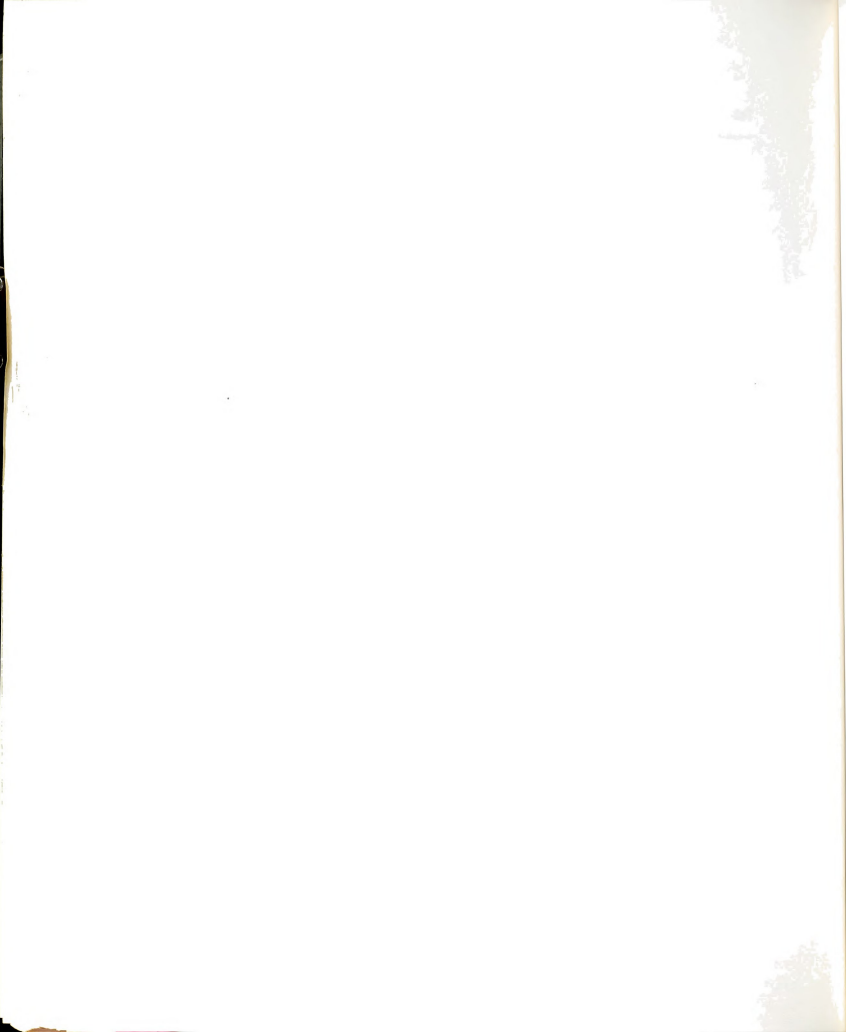


Table 13.--Distribution of subjects by birth order (N = 50).

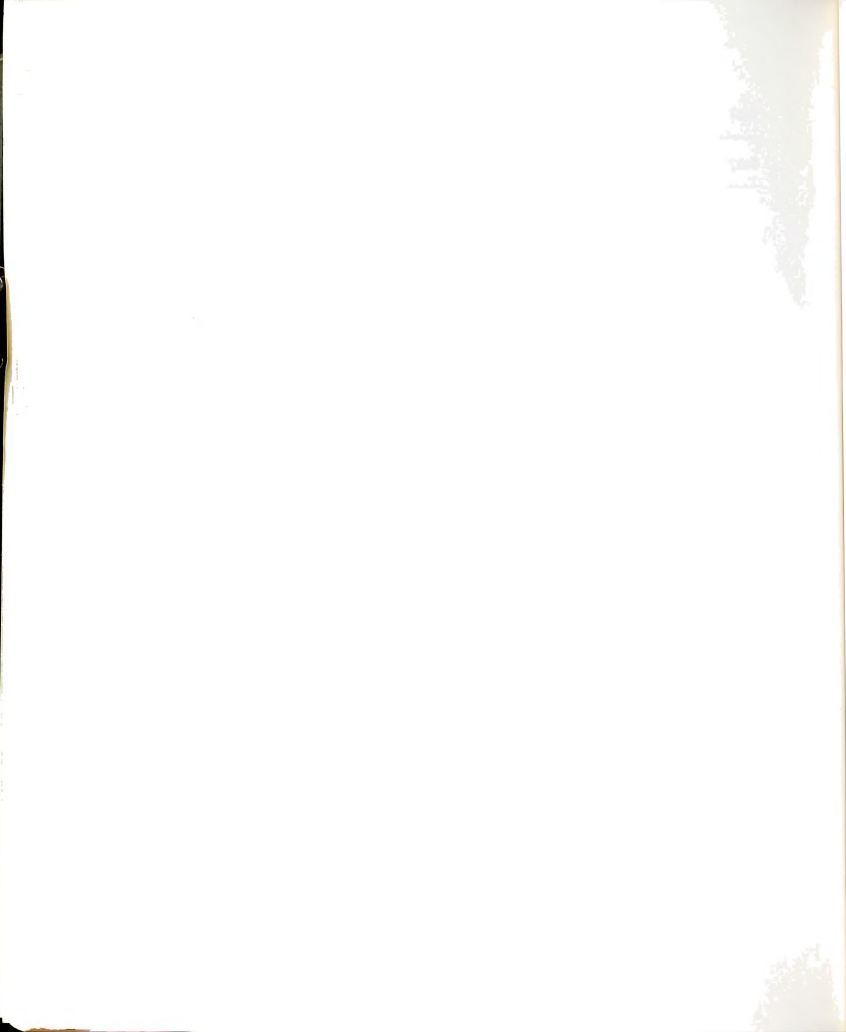
Subject's Birth Order	Number	Percent
1st	15	30
2nd	4	8
3rd	13	26
4th	7	14
5th	6	12
6th	2	4
7th	1	2
8th	2	4
Total	50	100

In like manner, the majority of the subjects were born to mothers whose ages ranged mostly between 20 and 40 years, as shown in Table 14. However, approximately one-fourth of the subjects were born to either very young or old mothers.

Table 14.--Distribution of subjects by mother's age at the time of subject's birth (N = 50).

Mother's Age at Subject's Birth	Number	Percent
Below 20	9	18
Between 20 and 30	23	46
Between 31 and 40	14	28
Above 40	4	8
Total	50	100

Parents' educational status.--Table 15 presents the distribution of the subjects by their parents' educational status.



While 50% of the fathers received no education, the number of the subjects' mothers who received no education was quite high (72%). The educational level that was relatively most common between both fathers and mothers was the elementary level. Fourteen percent or seven fathers versus 4% or two mothers completed secondary school. While no mother reached the college level, only two fathers indicated that they held a bachelor's degree.

Table 15.--Distribution of subjects by parents' educational status (N = 50).

Educational Status	Father		Mother	
	N	%	N	%
Received no education	25	50	36	72
Elementary school (6 yrs.)	12	24	8	16
Preparatory school (3 yrs.)	1	2	3	6
Obtained some secondary schooling	3	6	1	2
Completed secondary school (3 yrs.)	7	14	2	4
Attended some college	0	0	0	0
Obtained a bachelor's degree	2	4	0	0
Total	50	100	50	100

Parents' economic status.--Table 16 displays the parents' vocational status. Forty-four percent of the subjects' parents equally shared unskilled or semi-skilled jobs. As 24% worked in skilled clerical jobs, 14% worked in different jobs as professionals or managerials. Six percent were merchants or independent shopkeepers,



and 4% were vendors. Only one parent had no job, and three parents were retired.

Table 16.--Distribution of subjects by parental vocational status
(N = 50).

Parents' Occupation	Number	Percent
Unskilled (general)	11	22
Semi-skilled (manual)	11	22
Skilled clerical	12	24
Professional	5	10
Managerial	2	4
Merchant/independent shopkeeper	3	6
Vendor	2	4
Retired	3	6
Unemployed	1	2
Total	50	100

The parents' income nearly conformed to the types of jobs they held. Examining Table 17 indicates that more than half of the parents earned a monthly income that ranged from less than \$25 to not more than \$74. Taking into consideration that, as previously indicated in Table 14, 66% of the subjects came from families of 6 to 11 members, and the present economic condition in Egypt, this income is poor and reflects the hardship of their lives. While 16% earned between \$100 and \$199 a month, only 4% had an income of \$200 or more per month.



Table 17.--Distribution of subjects by parents' income (N = 50).

Income (per month) ^a	Number	Percent
Less than \$25	8	16
\$25-\$49	11	22
\$50-\$74	10	20
\$75-\$99	11	22
\$100-\$124	5	10
\$125-\$199	3	6
\$200 or more	2	4
Total	50	100

^aAnnual per capita income in Egypt is \$560 (United States Department of State, 1982).

Educational History of the "Graduates"

An examination of the Mataria Center records revealed the following data regarding the educational history of those "graduates." The analysis of these data indicated that those subjects were admitted to the Center at an average age of 15.84 years. As can be seen from Table 18, 32% of the subjects were, when admitted to the Center, under 15 years of age. While 30% were admitted at the age of 15 or 16, and 22% got to the Center at 17 or 18 years of age, 14% were admitted at the ages of 19 or 20. The fact that only one subject was admitted to the Center at 11 years of age and another one at 26 would indicate that the Center, with very few exceptions, restricts its services to individuals who finish their elementary education at the age of at least 12 years and who are under 25 years of age.

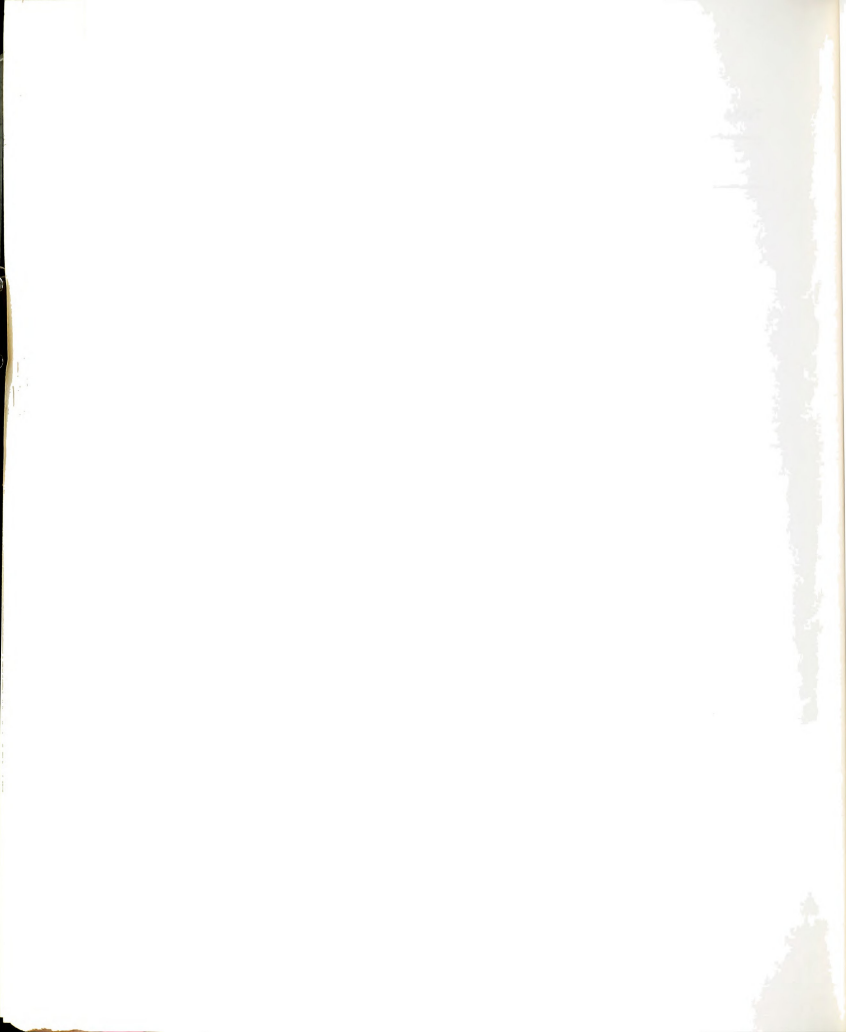


Table 18.--Distribution of subjects by admission age to the Mataria Center (N = 50).

Subject's Admission Age	Number	Percent
11-12	4	8
13-14	12	24
15-16	15	30
17-18	11	22
19-20	7	14
Over 20	1	2
Total	50	100

Table 19 displays the subjects' distribution by the graduation year. This table shows that slightly less than one-third of the subjects graduated in 1980, and relatively few subjects graduated in 1976.

Table 19.--Distribution of subjects by years of graduation (N = 50).

Graduation Year	Number	Percent
1976	6	12
1977	11	22
1978	9	18
1979	8	16
1980	16	32
Total	50	100

The length of training the subjects had at the Center ranged from 10 to 98 months. As indicated by Table 20, the subjects were



trained by the Center for a period that averaged 45.9 months. In light of the fact that the trainees are dismissed from the Center for approximately a three-month summer vacation, it seems from Table 20 that the majority of those "graduates" were trained for an average period of five school years.

Table 20.--Distribution of subjects by length of training (N = 50).

Training Length (in months)	Number	Percent
10-15	9	18
20-30	7	14
31-45	11	22
47-60	7	14
62-72	8	16
73-98	8	16
Total	50	100

The majority of those subjects did not receive any special educational training before entering the Mataria Center. As shown in Table 21, 30% of the subjects attended special education for a varied number of years before coming to the Center, while 70% came directly to it from public elementary schools. Table 22 displays the types of special education services received by some of the subjects before attending the Mataria Center.



Table 21.--Distribution of subjects by years they attended special education before the Mataria Center (N = 50).

Number of Years	Number	Percent
0	35	70
3	2	4
4	2	4
5	5	10
6	5	10
7	1	2
Total	50	100

Table 22.--Distribution of subjects who received special services before the Center by types of services received (N = 15).

Type of Special Services	Number	Percent
Special classes in regular schools	9	60
Special schools for MR	3	20
Rehabilitation center for MR	3	20
Total	15	100

Analysis of the Independent Living Status
of the Mataria Center "Graduates"

General Overview

The highest goal of the Mataria Center program is to enable the mentally retarded person to live independently in his/her community to the best of his/her ability. Independent living as a rehabilitation goal for the mentally retarded was previously defined in Chapter II by the International Labor Organization (ILO). It considered independent



living as the retardate's ability to earn his/her own living, support himself/herself and perhaps a family in his/her own community, and have a happy, productive, and respected place in society.

While some researchers have viewed the retardates holding a job and making a living as indicators of both the realization of the rehabilitation goal and the retardate's independence in life, this writer's contention is that productivity and independent living as a rehabilitation goal are multiple rather than single and life-value oriented rather than economic-value oriented. However, while the economic value is still one factor in any person's productivity and independence, this writer viewed the retardate's independence and productivity in a broad sense. Their indicators appear in either measurable aspects of the retardate's life, such as his/her ability to hold a job and make a living, to support himself/herself or a family in his/her own community, and to do all the daily living activities, or unmeasurable aspects such as the removal of being a burden on his/her family and community, gaining respect from society, and making his/her life happy and meaningful.

However, in investigating and analyzing the independent living status of the Mataria Center "graduates," the present study considered the following measurable aspects of the "graduates'" lives. They were viewed by the writer as indicators of their independence and productivity within a frame of reference to the social and economic standards of the Egyptian society:



Economic status, which includes:

1. The "graduates'" vocational status
2. The "graduates'" income per month
3. The "graduates'" ability to handle economic activities

Social status, which includes

4. Marital status
5. Living status
6. The acquirement of daily living competencies and skills considered to be important to the maintenance of independent functioning, and personal and social responsibility

The following is a description of each of these aspects.

The "Graduates'" Vocational Status

As the data collected in the second part of the questionnaire indicated, a great majority of the "graduates" were found to be employed at the time of the interview. As Table 23 shows, 86% of the sample subjects held different jobs in the labor market. While five subjects were unemployed, two others were recruited in military service as they reached the age of 18. Although these two subjects were not working in an employment sense, being recruited in the military service is in and of itself considered by the Egyptian society as highly significant in terms of the youth's responsibility for himself and for carrying out duties that are difficult even for a "normal" person.



Table 23.--Distribution of "graduates" by their present vocational status (N = 50).

Employment Status	Number	Percent
Employed	43	86
Unemployed	5	10
Military service	2	4
Total	50	100

The jobs held by those who were employed reflected, to some extent, the types of vocational training those subjects had at the Mataria Center. According to Table 24, 42% worked as carpenters or in packaging, 16.2% worked as carpet weavers, 11.6% in tricott and embroidery, and 4.6% in pottery. One subject worked as an electrician's assistant, and another worked as a taxi driver. While most of the employed subjects held somewhat skilled jobs, 21% worked in unskilled jobs (i.e., custodians). The types of jobs held by the employed subjects were typical of those found in the Egyptian job market for people who are not well educated.

When the parents were asked when those "graduates" started their jobs, their responses implied that most of the subjects were employed immediately after their graduation from the Center. Table 25 displays the employed subjects by the time period since they started their jobs. In terms of job stability, this table shows that, at the time the "graduates" parents were interviewed, no one was reported to have left his/her job or to have been dismissed from his/her position.



Table 24.--Distribution of "graduates" by types of present jobs
(N = 43).

Type of Job	Number ^a	Percent
Custodian	9	21.0
Carpenter	9	21.0
Packaging	9	21.0
Carpet weaver	7	16.2
Tricott and embroidery	5	11.6
Pottery	2	4.6
Electrician's assistant	1	2.3
Taxi driver	1	2.3
Total	43	100.0

^aThis number does not include the two subjects recruited for military service.

Table 25.--Employed subjects by years present jobs had been held
(N = 43).

Job Was Started For	Number	Percent
One year	13	30.2
Two years	10	23.2
Three years	8	18.6
Four years	3	7.0
Five years and more	9	21.0
Total	43	100.0

In terms of the type of employer, the subjects were employed, for the most part, in the private sector (51%). The public sector accounted for the second most common source of employment (35%). Very



few subjects worked for the government (11.7%), and only one was self-employed (2.3%). Table 26 presents the data on types of employers.

Table 26.--Distribution of employed subjects by type of employer
(N = 43).

Type of Employer	Number	Percent
Private sector ^a	22	51.0
Public sector	15	35.0
Government	5	11.7
Self-employed	1	2.3
Total	43	100.0

^aThe public sector in Egypt consists of sizable enterprises that include all heavy industries and are owned by the state. The private sector, on the other hand, consists of many small- and medium-scale industries that are not owned by the state and that have controlled or compete with price-controlled products. Construction, nonfinancial services, and domestic marketing are largely private (United States Department of State, 1982).

When parents were asked how the "graduates" obtained their jobs, different channels of placement efforts were mentioned by the parents through which those subjects were employed. Table 27 summarizes these placement efforts. This table does not include the two subjects in military service. While slightly more than half of the employed subjects obtained their jobs through the efforts of either the Center counselor, placement officer, or Labor Force Office, with a great variation in the number of cases placed by them, roughly 42%, on the other hand, were helped by efforts of different benefactors. Those benefactors included the parents (14%), another relative (23%), and



others who were a close friend of the family or a neighbor. Only two subjects obtained their jobs through their own efforts.

The subjects' parents interviewed were also asked to indicate the type of vocational gain they perceived the Mataria Center could provide regarding the subjects' vocational status. Their responses are indicated in Table 28. These responses obtained from the parents of both the employed and unemployed subjects give a varied perception of the vocational help obtained from the Center. Approximately two-thirds (68%) of the parents did not think the Center had helped their children acquire job skills. In the same manner, slightly less than two-thirds (64%) of them did not think that the Center had helped the subjects in choosing a permanent job. However, 56% thought that the Center was helpful in terms of helping the subjects acquire work habits.

Table 27.--Distribution of the employed subjects by the types of job placement efforts (N = 43).

Type of Placement Effort	Number	Percent
The Center counselor	7	16.25
Placement officer	15	35.00
Labor Force Office	1	2.25
The subject's parents	6	14.00
Another relative	10	23.25
The subject's own effort	2	4.64
Others	2	4.64
Total	43	100.00



Table 28.--Distribution of subjects by the type of vocational help
(N = 50).

Did the Center Help Him/Her to:	Number	%	Number	%	Number	%
Acquire job skills?	16	32	34	68	50	100
Acquire work habits?	28	56	22	44	50	100
Choose a permanent job?	18	36	32	64	50	100

When the parents of those who were employed at the time of the study were asked whether or not the subjects were satisfied with their jobs, their responses indicated a high proportion of satisfaction (86%), although they mentioned different reasons for being satisfied with their jobs. Fourteen percent or six subjects were not satisfied with their jobs. Table 29 shows the distribution of reasons for job satisfaction of the employed subjects (N = 37).

Table 29.--Distribution of reasons for satisfaction of employed
subjects (N = 37).

Reason for Satisfaction	Number	Percent of Subjects
High payment	34	92.0
Job is suitable	30	81.0
Co-workers are good	28	76.0
Has good friends there	22	59.5
Supervisors are good	13	35.0
Job is in public sector	9	24.0
Job is near his/her home	7	19.0
It is the only job available	5	13.5
Job is governmental	3	8.0



As can be seen from Table 29, the reasons ranged from getting high payment from their jobs to reporting that the work was governmental. A high rate of payment (92%) was cited as the leading reason for being satisfied with their jobs. Next to this came the suitability of jobs being held by the subjects (81%). However, working in a governmental job came as the least frequent reason for satisfaction. As the parents interviewed were given a chance to mention any other reasons they could view for the subjects' being satisfied with their jobs, a great majority (94.5%) agreed that their jobs gave them a feeling of being able to support themselves and to help their families.

On the other hand, those who were not satisfied with their jobs (N = 6) mentioned reasons that varied from unsuitability of their jobs, which was mentioned by five parents, to having conflicts with their supervisors, as mentioned by four parents, to low payment, which was the least frequent reason as mentioned by three parents. Table 30 shows the distribution of reasons for dissatisfaction with jobs given by dissatisfied employed subjects.

Table 30.--Reasons for dissatisfaction of employed subjects (N = 6).

Reason for Dissatisfaction	Number
Job is unsuitable	5
Time of work is inconvenient	0
Place of job is far from home	0
Nongovernmental work	0
Low payment	3
Problems with supervisors	4
Problems with co-workers	0



As for the subjects who were not employed at the time of the study ($N = 5$),¹ their parents were asked whether or not those subjects had ever been employed since they graduated from the Mataria Center. Their responses indicated that all of the five subjects were employed after their graduation. However, they had to quit their jobs. When the parents were further asked to give reasons for quitting these jobs, they gave the responses shown in Table 31. As the table displays, the difficulty of the jobs was mentioned by three parents as a reason for quitting these jobs. However, the other reasons were mentioned only once.

Table 31.--Reasons for quitting jobs.

Reason for Quitting the Job	Number of Times Reason Mentioned
Work was difficult	3
Place of work was far from home	1
Lack of job skills	1
Job was not permanent	1
Low payment	1
Could not get along with co-workers	1
Could not get along with supervisors	1

The "Graduates'" Income Status

The "graduates'" income status was considered from three different sources that contributed to their total earning per month:

¹The two subjects who were recruited at the time of the study were not included here.



(1) personal earnings of the subjects consequent to being employed, (2) any parental support, and (3) any other support that came from others. To put the reader at ease in estimating the quantity of these incomes, they were counted in a dollar unit. The income-status analysis regards only those subjects who were employed at the time of the study (43 subjects) as no income from any source was reported for the unemployed subjects or for the two recruited subjects (total of seven subjects).

The parents were asked to indicate the income that the subjects earned from three sources: their jobs, support from parents, and/or support from others such as other relatives or social welfare. As no support from the last source was reported, the following analysis deals with income from jobs and parental support.

Table 32 presents the monthly income earned from jobs by the employed subjects. The minimum wage per month is defined by the Law of Force as equal to \$20 (Mohamed, 1982). As Table 32 reveals, the median of the earned incomes from jobs was higher than the minimum wage. With regard to monthly income incurred from parental support, only four employed subjects reported receiving varying amounts from this source. Table 33 shows incomes resulting from parental support.



Table 32.--Distribution of employed subjects by their monthly income from a job (N = 43).

Income Amount	Number	Percent
Less than \$20	3	7.0
\$20-\$29	20	46.5
\$30-\$39	13	30.2
\$40-\$49	4	9.3
\$50-\$60	3	7.0
Total	43	100.0

Median income = \$29.

Table 33.--Distribution of employed subjects by monthly income from parental support (N = 43).

Amount Incurred	Number	Percent
\$0	39	90.7
\$6	1	2.3
\$15	1	2.3
\$20	1	2.3
\$25	1	2.3
Total	43	100.0

The overall monthly income for all the employed subjects is reported in Table 34. As can be seen from this table, a very small proportion (7%) of the employed subjects earned an income with a total of less than \$20 per month, while another relatively small proportion (9%) earned a total of \$50-\$60 per month. The overall median of the monthly total income for all the employed subjects was \$30, which is



higher than the monthly minimum wage defined by the Law of Force. In light of the present Egyptian economic situation, this median income is comparable to that of other Egyptian people who are generally not well educated.

The "Graduates'" Ability to Handle Economic Activities

In evaluating this aspect of the "graduates'" lives, the Economic Activities major domain on Part One of the ABS was used. The analysis of data on this aspect is included in analysis of the subjects' performance on the ABS.

Table 34.--Distribution of employed subjects by their overall monthly income (N = 43).

Overall Income	Number	Percent
Less than \$20	3	7.0
\$20-\$29	17	39.5
\$30-\$39	14	32.5
\$40-\$49	5	12.0
\$50-\$60	4	9.0
Total	43	100.0

The "Graduates'" Marital Status

The data analyzed on this aspect were collected from the seventh section of the first part of the questionnaire. The "graduates'" marital status is presented in Table 35. Seven subjects were married after graduating from the Mataria Center and getting a job.



Whereas 8% or four subjects were married and had children, 6% or three subjects were married and did not have children. However, the great majority of the subjects were still single. No cases were reported as being divorced or widowed. The fact that getting married has generally become a difficult matter in Egypt in the last two decades even among "normal" people themselves may shed some light on the high proportion of unmarried "graduates," as discussed later in Chapter V.

Table 35.--Distribution of the "graduates" by their marital status
(N = 50).

Subjects' Marital Status	Number	Percent
Single	43	86
Married with children	4	8
Married without children	3	6
Total	50	100

The "Graduates'" Living Status

Data analyzed in this part were collected by using Question 8 on the first part of the questionnaire. This question included seven living-arrangement choices to which the parents were asked to indicate the one that most appropriately described the subject's living status. Table 36 describes the data found on this status. While the table shows that the married proportion of the subjects were living either with their own household or in their parents' house with their wives and children, the majority of the subjects or, in other words, the



single subjects were living with their parents and siblings. Here again, both the socioeconomic background and the complexion of the Egyptian family play a great role in defining one's independence. More in-depth discussion of this issue is presented in Chapter V.

Table 36.--Distribution of "graduates" by living status (N = 50).

Living Arrangement	Number	Percent
Lived with spouse and children	5	10
Lived with parents and with wife and children	2	4
Lived with parents and siblings	43	86
Total	50	100

The "Graduates'" Independent Living Competencies

To describe the "graduates'" daily living competencies and skills, Part One of the ABS was used. As has been mentioned repeatedly, Part One consists of ten behavior domains (21 subdomains) (see Chapter II, p. 76) that primarily assess the individual's performance in daily living areas considered to be important to the maintenance of independent functioning and personal and social responsibility.

As may be recalled, the sample used in this study consisted of 50 subjects who were equally and randomly divided into two groups. For purposes explained in Chapter III, the ABS was administered only to the



subjects of Group One. The scores obtained on each domain and sub-domain for each subject, as well as other information regarding characteristics such as sex, age, and measured intelligence level, are listed on summary tables in Appendix C. Descriptive statistics were first performed on the raw domain scores to depict the overall level of the "graduates" related to functioning independently in society. The observed frequencies for the obtained raw scores are listed in Appendix C. Table 37 presents the descriptive statistics applied initially to the raw domain scores of the subjects.

Table 37.--Descriptive statistics of the subjects' raw scores on the ABS major domains.

No.	Domain	Mean	Med.	Mode	SD	Min.	Max.	Range
1	Independent Funct.	88.24	92.0	107	16.42	28	107	79
2	Physical Develop.	22.28	23.4	24	2.76	13	24	11
3	Economic Activity	10.32	11.6	12	4.35	3	16	13
4	Language Develop.	23.48	24.0	26	5.46	11	38	27
5	Numbers & Time	6.36	9.7	12	2.83	0	12	12
6	Domestic Activity	8.92	7.2	7	6.47	0	18	18
7	Vocational Activity	8.72	10.0	11	2.81	0	11	11
8	Self-Direction	12.68	13.0	18	5.16	2	19	17
9	Responsibility	3.76	4.4	5	2.05	0	6	6
10	Socialization	16.24	17.3	17	4.90	5	24	19

Second, because some domains had maximum scores higher than the others and to facilitate the interpretation of the subjects' performance and the comparison of the domains to each other, the means and standard deviations of the scores were converted into percentages of



maximum scores. Thus, all domains were of equal total scores--0 to 100%. Subsequently, the domains were tabulated in rank order according to the means and standard deviations of the converted scores. Table 38 shows the results of this process of analysis.

Table 38.--Order of the converted domain scores by mean and standard deviation.

No.	Domain	Mean	SD
2	Physical Development	92.83	11.51
1	Independent Functioning	82.47	15.35
7	Vocational Activity	79.27	25.51
5	Numbers and Time	78.00	23.56
8	Self-Direction	63.40	25.80
9	Responsibility	62.67	34.12
10	Socialization	62.46	19.21
4	Language Development	61.79	14.37
3	Economic Activity	60.71	25.57
6	Domestic Activity	49.56	35.93

By looking at Table 38 and by comparing the scores to each other, it can be seen that the first group of Mataria "graduates" were rated generally high by their parents in four domains--namely, physical development, independent functioning, vocational activity, and numbers and time. While the retarded "graduates" were rated above average¹ in five other domains, their performance in the domestic activity domain came very slightly below average. It can then be concluded from the

¹Average score as used in this analysis is defined as a percentage of 50.



analysis mentioned above that the independent living competencies and skills, as measured by the ABS, were generally present in the Mataria "graduates" at different levels of mastery. While these competencies and skills were rated to be high to above average in the majority of the independent functioning areas, they were found to be relatively weak in one area (i.e., domestic activity) as compared to the other areas.

To determine the specific areas of relative strength and weakness of the "graduates," more in-depth analysis was performed on the "graduates" scores obtained on the subdomains. As four major domains of the ABS had no subdomains (i.e., numbers and time, vocational activity, responsibility, and socialization), they were considered as subdomains in this part of the analysis and joined to the other 21 subdomains. (See Appendix C.)

Here again, descriptive statistics were first performed on the raw scores of the subdomains to determine frequencies, means, standard deviations, maximum and minimum scores, and the range. The observed frequencies for the obtained scores are listed in Appendix C. Table 39 presents a summary of this initial analysis.

As previously done with the domain raw scores, the means and standard deviations of the raw scores on the 25 subdomains were converted into percentages of the maximum possible scores to facilitate interpreting and comparing the subdomain scores to each other. Thus all subdomains were of equal total scores--0 to 100%. The results of this process are listed in Appendix C. The means and standard



deviations of the resulting percentages were then rank ordered. Table 40 presents the final analysis of these subdomains as described above.

Table 39.--Descriptive statistics of the subjects' raw scores on the ABS subdomains.

No.	Subdomain	Mean	Med.	Mode	SD	Max.	Min.	Range
1	Eating	16.00	15.7	16	3.43	20	6	14
2	Toilet Use	9.76	9.4	10	0.83	10	6	4
3	Cleanliness	20.68	22.5	24	4.63	24	5	19
4	Appearance	13.20	14.0	15	2.78	15	5	10
5	Care of Clothing	2.40	1.8	4	1.58	4	0	4
6	Dressing & Undressing	13.20	13.4	14	2.63	14	1	13
7	Travel	5.84	6.2	7	1.57	7	2	5
8	General Independ. Functioning	7.12	6.5	6	3.10	13	1	12
9	Sensory Develop.	5.44	5.6	6	0.82	6	3	3
10	Motor Develop.	16.84	7.8	18	2.70	18	7	11
11	Money Handling & Budgeting	3.72	3.5	3	2.00	7	1	6
12	Shopping Skills	6.60	7.7	9	2.94	9	0	9
13	Expression	17.16	17.6	18	2.53	22	11	11
14	Comprehension	3.44	3.6	3	2.14	7	0	7
15	Social Language Development	3.28	3.1	4	2.23	8	0	8
16	Numbers & Time	9.36	9.6	12	2.83	12	0	12
17	Cleaning	2.84	2.1	6	2.37	6	0	6
18	Kitchen Duties	4.04	3.5	8	2.98	8	0	8
19	Other Domestic Activities	2.04	1.8	4	1.7	4	0	4
20	Vocational Activity	8.72	10.0	11	2.81	11	0	11
21	Initiative	5.92	6.3	9	2.74	9	1	8
22	Perseverance	5.64	6.6	8	2.56	8	0	8
23	Leisure Time	1.12	1.1	1	0.53	2	0	2
24	Responsibility	3.76	4.4	5	2.05	6	0	6
25	Socialization	16.24	17.3	17	4.9	24	5	19



Table 40.--Order of the converted subdomain scores by mean and standard deviation.

No.	Domain	Mean	SD
2	Toilet Use	97.60	8.31
6	Dressing & Undressing	94.29	18.79
10	Motor Development	93.56	15.00
9	Sensory Development	90.67	13.68
4	Appearance	88.27	18.59
3	Cleanliness	86.17	19.27
7	Travel	83.43	22.47
1	Eating	80.40	17.13
20	Vocational Activity	79.27	25.51
13	Expression	78.00	11.50
16	Numbers & Time	78.00	23.56
12	Shopping Skills	73.30	32.70
22	Perseverance	70.50	32.00
21	Initiative	65.78	30.42
24	Responsibility	62.67	34.12
25	Socialization	62.46	19.21
5	Care of Clothing	60.00	39.53
8	General Independent Functioning	54.77	23.85
19	Other Domestic Activities	51.00	42.38
18	Kitchen Duties	50.50	37.24
17	Cleaning	47.33	39.58
11	Money Handling	46.50	24.87
14	Comprehension	43.00	26.78
15	Social Language Development	41.00	27.84
23	Leisure Time	37.33	17.54

Examination of Table 40 reveals the areas of the subjects' strengths as well as their weaknesses relating to independent living competencies and skills. The Mataria "graduates" in Group One were rated higher by their parents on four subdomains which represent their strengths, namely, toilet use, dressing and undressing, motor development, and sensory development. The graduates were rated high on appearance, cleanliness, travel, and eating subdomains. While other



areas were rated as above average or average, the "graduates" competencies and skills in cleaning, money handling, comprehension, social language development, and leisure time were rated low or below average. These areas would represent the weaknesses of the "graduates" in their independence. Comparing the means of these five subdomains to each other indicated that social language development and leisure time were the two weakest areas of the "graduates" competence. A general conclusion can then be drawn based on the above analysis. That is, when the specific areas of the "graduates" independent living competence were examined, the "graduates" were found to be of higher mastery in four areas, of high to above average mastery in most of the areas, and of relatively weak mastery in five other areas. It should be noted that two of the subdomains on which the "graduates" were rated low fell in the language development domain.

Comparison of the "Graduates'" Scores to the American Normative Sample

To know how the independent living patterns of the adult "graduates" compared to the American normative sample, a t-test was used. It is no iteration to emphasize here that this comparison was solely based on the scores obtained by 19 subjects who were of equivalent IQ (52-67), sex (male), and age group (19-29) to the American norm. The remaining six subjects who did not conform to these criteria were disregarded in this comparison. Thus, before performing this comparison it was necessary to figure the means and standard deviations exclusively for those 19 "graduates" raw domain scores.



Appendix C lists the raw domain scores of the subjects after breaking them down into groups according to IQ level, sex, and age. Also listed in it are the means and standard deviations counted only for the 19 subjects presently used in this comparison. In the meantime, data used in categorizing the subjects according to the American normative sample were provided to this researcher by the AAMD as an Appendix of the ABS manual (1975). Table 41 presents the t-test results from comparing the 19 "graduates" to the United States norm.

Table 41.--T-test results of the Mataria "graduates" and the United States normative sample (ages 19-29).

Domain	Graduates (N=19)		U.S. Norm (N=26)		t
	Mean	SD	Mean	SD	
Independent Functioning	88.8	17.9	93.0	12.0	0.94
Physical Development	22.5	2.7	22.5	1.9	0
Economic Activity	10.9	4.3	8.5	5.2	2.42*
Language Development	24.3	6.8	29.0	5.3	3.42*
Numbers & Time	9.0	3.1	8.7	2.9	0.33
Domestic Activity	8.9	6.3	10.1	4.5	1.12
Vocational Activity	8.5	3.0	7.3	3.5	1.20
Self-Direction	12.6	5.2	16.6	3.2	3.19*
Responsibility	3.8	2.1	3.6	1.8	0.34
Socialization	16.6	4.9	17.3	3.9	0.53

*Significant at the .05 level.

Looking at Table 41, it can be seen that the two groups, the Egyptian and the American, did not significantly differ for the most part in their independent living patterns. While the two groups were



interestingly equal on the physical development domain, the American group was significantly higher on both the language development and self-direction domains and higher but not significantly so on the independent functioning and socialization domains. On the other hand, the Egyptian group was found to be significantly higher only on the economic activity domain and higher but not significantly so on the numbers and time, vocational activity, and responsibility domains.

While the two groups were not found to be significantly different on most of the ABS domains, much caution must be exercised in applying the findings of this comparison to any other studies that include both males and females. The fact that the Egyptian group did not include enough female subjects to be included in the previous comparison imposes a limitation on the findings of this study. Future studies should take this limitation into consideration. Also, the findings of this comparison should be viewed in light of the economic situation and employment regulations applied in Egyptian society.

Skills and Competencies Perceived Important for Successful Independent Living

This section deals with the perception of both the parents and professionals of the Mataria educable "graduates" in regard to the importance of the 78 competency statements for successful independent living in Egypt. It also deals with a comparison between the parents' perception and professionals' perception regarding this importance. Both the parents and professionals were asked, as mentioned in the preceding chapter, to express their perception on a six-point scale on



which five degrees of importance were weighted. These degrees ranged from 1 to 5. Points 3, 4, and 5 were assigned to indicate a positive or favorable perception, although with varying degrees. Points 2 and 1, on the other hand, were assigned to indicate a negative or unfavorable perception that implied the unimportance of a competency statement. A point of 0 was added to the scale to account for an unknown perception for which a respondent might not be able to express his opinion for one reason or another. Therefore, the competency statements that were given a majority score of 3 or above were considered as important competencies, and statements given a majority score of below 3 were considered as not very important or totally unimportant.

Hence, to depict the importance of the skills and competencies, responses to each statement by the total number of subjects' parents included in the second group of "graduates" were recorded and tabulated in rank order according to the descriptive statistics (means and standard deviations) performed on the responses. The observed frequencies of the 78 competency statements are presented in Appendix D. The reader should notice that responses recorded under the 0 point of the scale were counted in the frequencies. However, they were not included in calculating the means and standard deviations of responses for each statement as they implied unknown perceptions. The process mentioned above was followed in analyzing the responses of both the parents and professionals. The following is a description of the results of these analyses.



Analysis of Parents' Perception

Table 42 presents the competency statements in rank order according to the mean and standard deviation of the parents' perception. By looking at this table it can be seen that the importance of the overwhelming majority (91%) of the competencies was rated by the parents as generally ranging from above average to nearly vital for the educable mentally retarded to live successfully independently in the Egyptian society. In other words, the rating of 71 competencies ranged from a mean rating of 4.6, which was given to "controlling bowel and bladder without having accidents," to a mean rating of 3.0, which was assigned to both "ability to read books suitable for children nine years or older" and "ability to repeat a story with little or no difficulty." Seventeen of the highest-rated competencies fell in the "Independent Functioning" domain. This could be interpreted as an indication that independent functioning competencies were viewed by the parents as the prime skills an educable mentally retarded person should acquire in order to live successfully independently in society. However, 7 of the 78 competencies were rated as the lowest in terms of their importance. The mean ratings of these seven competencies ranged from 2.96 to 2.5. The standard deviations varied from 0.8 to 1.28, from which it can be concluded that these seven competencies were perceived as of a slightly below average importance but not convincingly unimportant.



Table 42.--Order of importance by mean ratings for all 78 statements as perceived by parents.

Item	Competency Statement	Mean	SD
5	Controlling bowel & bladder without having accidents	4.600	0.500
6	Independence in using toilet & urinal properly when needed & taking care of himself after having done	4.560	0.570
11	Ability to properly handle feminine hygiene	4.455	0.522
7	Independence in washing hands & face with soap & drying them	4.440	0.507
9	Independence in grooming self regularly & properly	4.320	0.476
29	Ability to hear well even with hearing aid	4.318	0.716
8	Independence in preparing & completing bathing	4.280	0.542
18	Independence in going a few blocks from home or work without getting lost	4.280	0.614
36	Independence in doing shopping & other errands (food, clothes, etc.)	4.240	0.779
25	Ability to look after personal health	4.200	0.645
3	Independence in properly drinking beverages	4.160	0.850
16	Independence in undressing self at appropriate times	4.160	0.473
17	Independence in wearing shoes, tying laces, & removing them correctly	4.160	0.473
15	Independence in dressing self	4.120	0.526



Table 42.--Continued.

Item	Competency Statement	Mean	SD
64	Coming on time for work & is seldom absent, leaving it without permission or encouraged to complete jobs	4.120	0.440
37	Independence in buying all own clothing	4.080	0.812
28	Ability to see well even with glasses	4.043	0.776
22	Ability to go to bed & cover self with blanket independently	4.040	0.889
10	Independence in properly brushing teeth with toothpaste	4.000	0.957
23	Ability to control appetite ordinarily and to eat moderately	4.000	0.764
27	Know whom and how to contact when medical/dental help is required	4.000	0.645
32	Ability to control hands when performing different activities	4.000	0.707
63	Performing job safely, punctually, & satisfactorily	4.000	0.645
74	Awareness of own family & others by knowing their names, jobs, relation to self, etc.	4.000	0.764
4	Knowing table manners & applying them neatly	3.960	0.676
26	Ability to treat simple injuries	3.960	0.539
71	Very conscientious & assumes much responsibility--makes a special effort; & always performs the assigned activities	3.960	0.611



Table 42.--Continued.

Item	Competency Statement	Mean	SD
13	Independence in wearing clean & neat clothes properly for different situations & conditions	3.920	0.640
40	Ability to articulate clearly & properly	3.920	0.400
55	Naming the days of the week, referring correctly to "morning" & "afternoon," & understanding difference between day-week, minute-hour, month-year, etc.	3.920	0.812
33	Ability to use both right & left limbs effectively	3.840	0.898
77	Cooperation with others by taking turns & sharing	3.840	1.044
78	Not familiar with or afraid of strangers & does not like to have friendship with others whom he does not know	3.840	0.746
72	Offering assistance to others	3.833	0.868
12	Maintains an acceptable posture	3.800	0.764
14	Independence in taking care of shoes & clothing & sending clothes to laundry	3.760	0.723
35	Ability to budget, save, & spend money properly & with planning	3.720	0.792
41	Ability to use complex sentence in speech	3.720	0.678
70	Very dependable; always takes care of personal belongings	3.720	0.980
34	Ability to use banking facilities independently	3.680	0.988



Table 42.--Continued.

Item	Competency Statement	Mean	SD
62	Ability to perform a job requiring use of tools or machinery, e.g., shopwork, sewing, etc.	3.680	0.988
65	Initiating most of own activities or tasks	3.680	0.988
51	Ability to tell time by clock or watch correctly	3.640	0.952
19	Independence in riding public transportation (auto, cab, train, plane) for familiar & unfamiliar journeys	3.625	1.056
56	Cleaning room well	3.625	1.209
50	Ability to do simple addition & subtraction	3.600	0.957
39	Ability to express his feelings verbally & nonverbally (i.e., nods, laughs, etc.)	3.583	0.881
52	Understanding time intervals	3.560	1.003
73	Showing consideration for others' affairs, belongings, & feelings	3.560	1.044
30	Ability to keep body balanced upon request (i.e., stand on "tip-toe" for 10 seconds)	3.542	1.021
68	Persistence in doing tasks without being encouraged	3.520	0.872
2	Ability to order & eat meals at restaurants when necessary	3.480	1.046
54	Associating time on clock with various actions & events	3.480	0.823



Table 42.--Continued.

Item	Competency Statement	Mean	SD
66	Having ambition & interest in doing things punctually & independently	3.480	0.872
31	Ability to independently perform different activities requiring walking, going up & down stairs, running, skipping or jumping	3.440	1.044
45	Using "Yes," "No," "Please," "Thank You" appropriately & converse with others (peers, visitors) about sports, family, group activities, etc.	3.440	1.083
58	Ability to properly set table using required items	3.440	0.961
42	Ability to talk about action when describing pictures	3.440	0.712
60	Ability to clear table of breakable dishes & glassware	3.400	1.000
61	Washing dishes well, making bed neatly, helping with household chores upon request, & doing household tasks routinely	3.400	1.155
69	Organizing leisure time adequately on a complex or a simple level, e.g., watching television, listening to radio, doing a hobby, etc.	3.400	1.080
76	Active participation in social collective activities (church, mosque, sports, etc.)	3.240	1.165
46	Ability to be reasoned with, talk sensibly to & to respond obviously when talked to	3.200	0.816
57	Washing, drying, folding & ironing clothing	3.200	1.414
53	Understanding time equivalents	3.160	1.028



Table 42.--Continued.

Item	Competency Statement	Mean	SD
44	Ability to understand complex instructions containing prepositions, requiring a decision & done in order	3.125	0.947
20	Ability to use telephone directory, private or pay telephone & to answer them or take messages correctly	3.042	1.083
1	Independence in using table utensils correctly and neatly	3.040	1.338
43	Ability to read books suitable for children nine years or older	3.000	1.206
48	Ability to repeat a story with little or no difficulty	3.000	1.044
24	Know postage rates and buy stamps from Post Office	2.960	1.241
67	Paying attention to purposeful activities for more than 15 minutes (cleaning up & putting things away, etc.)	2.960	1.020
59	Ability to prepare an adequate complete meal	2.920	1.152
38	Ability to write sensible & understandable letters	2.750	0.847
75	Interaction with others in group games or social activities	2.739	1.287
47	Ability to read books, papers, magazines for enjoyment	2.667	1.090
49	Ability to fill in main items on application form reasonably well	2.500	0.933

As may be recalled from Chapter III, the 78 statements were modified and built around the ten major domains of the AAMD-ABS, Part I. Each of the ten domains was made up of several items. When further analysis was performed to determine how the parents generally perceived the importance of each domain, the mean ratings for the ten domains were computed and then tabulated in rank order, as shown in Table 43.

Table 43.--Rank order by mean ratings for the importance of the ten ABS domains as perceived by the parents.

No.	Domain	Mean	SD
1	Independent Functioning	3.967	.452
7	Vocational Activity	3.933	.491
3	Economic Activity	3.930	.690
2	Physical Development	3.845	.602
9	Responsibility	3.840	.673
5	Numbers & Time	3.560	.805
10	Socialization	3.527	.753
8	Self-Direction	3.408	.784
6	Domestic Activity	3.320	.986
4	Language Development	3.193	.593

Table 43 reveals that all parents perceived all the ten domains as important for successful independent living. While the domains varied relatively in the degree of importance perceived, competencies related to independent functioning, vocational activity, and economic activity were rated as the highest needed competencies for an educable mentally retarded person to live independently. However, competencies regarding domestic activity and language development were rated as the least important competencies for living independently. The average



mean ratings for all ten domains in terms of their perceived importance ranged from a mean of 3.967 to a mean of 3.193.

Analysis of Professionals' Perception

Demographic data.--As previously mentioned, 30 staff members serving at the Mataria Center completed Form B of part 4 of the questionnaire. Before analyzing their responses, description of this group is deemed helpful to understanding their perception. The description of data here focuses on the demographic area, namely sex, age, type of position held, years of experience working with retarded persons, educational level, and category with which a member predominantly or exclusively worked. Before getting into this analysis, it should be noted that these demographic data were collected only from the members who were available to the researcher. As may be recalled from the previous chapter, some of the members were, at the time during which this study was conducted, not required to work as they were having their summer vacation. Consequently, a few of them could not be reached and asked to participate in the study.

Table 44 shows the distribution of the professionals according to their age and sex. While 30% of the professionals were between 23 and 33 years of age, 40% were between 34 and 40. One-third (33.3%) fell between 41 and 50, and only two members (6.7%) were above 50 years of age.



Table 44.--Distribution of Mataria Center's professionals by age and sex (in percent).

Age	Sex		Total (N=30)
	Male (N=12)	Female (N=18)	
23-33	8.3%	44.4%	30.0%
34-40	50.0	33.3	40.0
41-50	33.4	16.7	33.3
Over 50	8.3	5.6	6.7
Total	100.0	100.0	100.0

In terms of type of job performed by the professionals at the Center, the staff members were asked to indicate their positions. Table 45 presents data related to these positions. The Center had 33.3% of the staff working as training teachers, 30% as social workers, and 16.7% as psychologists. Two members or 6.7% worked as rehabilitation counselors, and two others functioned as the general directors of the Center. There was one physiotherapist and one psychotherapist.

Table 45.--Distribution of Mataria staff members by job titles.

Job Title	Number	Percent
Training teacher	10	33.3
Social worker	9	30.0
Physiotherapist	1	3.3
Psychologist	5	16.7
Rehabilitation counselor	2	6.7
Psychotherapist	1	3.3
Director	2	6.7



The staff's experience in terms of number of years they had been working with mentally retarded persons ranged from 1 to 27 years. As can be seen from Table 46, at the time of this study one-third of the staff had been working with the retarded population for a maximum of 5 years, 16.7% for 6 to 10 years, 20% for 11 to 15 years, and 26.6% of them for 16 to 20 years. One of the two directors of the Center mentioned that he had been working in his position for 27 years.

Table 46.--Distribution of Mataria staff members by years of experience working with retarded persons.

Years of Experience	Number	Percent
1-5	10	33.3
6-10	5	16.7
11-15	6	20.0
16-20	8	26.6
Above 20	1	3.3
Total	30	100.0

The staff members were asked to indicate their educational levels with respect to formal training in rehabilitation services of the retarded persons. Their responses are presented in Table 47. This table shows that the staff's training levels ranged from those who hold a master's degree to those who have only experience in working with retarded persons. One of the two master's holders was trained in recreation and physical education at Michigan State University. The

other master's holder was trained in ceramic art. The B.S.W. holders who worked as social workers were not trained in counseling or therapeutic processes. Holders of this type of degree are usually trained in sociology in Egypt. Moreover, holders of B.E.s in this context are usually trained in educational psychology and act as psychologists after graduation. Furthermore, the holders of B.A.s were trained in general language teaching and had no training in teaching retarded persons. Table 47 shows also that one member (the director) held a B.S.A., which is clearly not related to rehabilitation work. Hence his experience along with those who had no degree was gained solely by working in this field with retarded persons. It should be noted that the members who mentioned that they had no degree were working at the Center as trainers in areas such as woodwork and carpentry, bamboo work, pottery and ceramics, carpet and rug making, knitting, leather work, photography, printing, packaging and binding, and horticulture.

Table 47.--Distribution of Mataria staff members by educational level.

Educational Level	Number	Percent
Master's	2	6.7
Bachelor of Art in Social Work (B.S.W.)	11	36.7
Bachelor of Art in Education (B.E.)	5	16.7
Bachelor of Physical Education (B.P.E.)	1	3.3
Bachelor of Science (B.S.)	1	3.3
Bachelor of Art in Arabic Lang. (B.A.)	3	10.0
Bachelor of Scientific Agriculture (B.S.A.)	1	3.3
Nondegree (experience only)	6	20.0
Total	30	100.0



Finally, the staff members were asked to indicate whether they predominantly or exclusively worked with educable or trainable mentally retarded persons. As Table 48 shows, the majority of the staff (73.3%) indicated that they worked predominantly with the educable category. However, 26.7% or eight members mentioned that they worked only with the trainable category.

Table 48.--Distribution of Mataria staff members by category of training assignment.

Category	Number	Percent
Educable mentally retarded	22	73.3
Trainable mentally retarded	8	26.7
Total	30	100.0

Professionals' Perception

After having presented the demographic status of the Mataria staff members, the focus now turns to how they perceived the importance of the 78 competency statements presented to them on Form B of the fourth part of the questionnaire. As Form B was equivalent to the one used with the parents (Form A), the professionals' responses were recorded and tabulated in rank order according to the descriptive statistics (means and standard deviations) performed on them. The observed frequencies of the professionals' ratings of each competency statement are presented in Appendix D. As indicated in analyzing the



parents' perception, responses recorded under the 0 point of the scale here, as well, were counted in the frequencies but not in calculating the mean and standard deviation for the same reason mentioned above.

At any rate, Table 49 presents the competency statements in rank order along with their mean ratings and standard deviations. By looking at this table, the reader will notice that the professionals, too, rated independent living competencies from above average to nearly vital in importance. The ratings of 71 competencies ranged from a mean of 4.667, which was given to "controlling bowel and bladder without having accidents," to a mean rating of 3.033, which was assigned to "ability to use banking facilities independently." Fourteen of the highest-rated competencies fell in the Independent Functioning domain. This could be interpreted as seeing the competencies in this domain by the professional as the prime skills an educable retarded individual should acquire in order to be successfully independent in society. However, seven competencies were rated by the professionals as the lowest in terms of their importance. These seven statements received a mean rating ranging from 2.933 to 2.828, which would imply that the professionals viewed their importance to be slightly below average but not convincingly unimportant.



Table 49.--Order of importance by mean ratings for all 78 statements as perceived by professionals.

Item	Competency Statement	Mean	SD
5	Controlling bowel & bladder without having accidents	4.667	0.606
7	Independence in washing hands & face with soap & drying them	4.667	0.547
6	Independence in using toilet & urinal properly when needed & taking care of himself after having done	4.600	0.621
11	Ability to properly handle feminine hygiene	4.533	0.571
16	Independence in undressing self at appropriate times	4.367	0.669
15	Independence in dressing self	4.333	0.661
17	Independence in wearing shoes, tying laces, & removing them correctly	4.233	0.679
3	Independence in properly drinking beverages	4.200	0.805
63	Performing job safely, punctually, & satisfactorily	4.200	0.551
9	Independence in grooming self regularly & properly	4.167	0.699
8	Independence in preparing & completing bathing	4.133	0.629
55	Naming the days of the week, referring correctly to "morning" & "afternoon," & understanding difference between day-week, minute-hour, month-year, etc.	4.100	0.607
10	Independence in properly brushing teeth with toothpaste	4.067	0.740



Table 49.--Continued.

Item	Competency Statement	Mean	SD
32	Ability to control hands when performing different activities	4.067	0.740
4	Knowing table manners & applying them neatly	4.033	0.669
39	Ability to express his feelings verbally & nonverbally (i.e., nods, laughs, etc.)	4.033	0.765
64	Coming on time for work & is seldom absent, leaving without permission or encouraged to complete jobs	4.033	0.850
22	Ability to go to bed & cover self with blanket independently	4.000	0.525
25	Ability to look after personal health	4.000	0.695
14	Independence in taking care of shoes & clothing & sending clothes to laundry	3.967	0.809
13	Independence in wearing clean & neat clothes properly for different situations and conditions	3.933	0.691
33	Ability to use both right & left limbs effectively	3.900	0.960
50	Ability to do simple addition & subtraction	3.900	0.712
12	Maintains an acceptable posture	3.867	0.860
21	Ability to prepare own bed independently at night	3.867	0.629
27	Know whom & how to contact when medical/dental help is required	3.867	0.776

Table 49.--Continued.

Item	Competency Statement	Mean	SD
75	Interaction with others in group games or social activities	3.862	0.693
77	Cooperation with others by taking turns & sharing	3.862	0.743
40	Ability to articulate clearly & properly	3.833	0.874
45	Using "Yes," "No," "Please," "Thank you" appropriately & conversing with others (peers, visitors) about sports, family, group activities, etc.	3.833	0.699
23	Ability to control appetite ordinarily & to eat moderately	3.800	0.887
31	Ability to independently perform different activities requiring walking, going up & down stairs, running, skipping or jumping	3.800	0.997
36	Independence in doing shopping & other errands (food, clothes, etc.)	3.800	1.031
71	Very conscientious & assumes much responsibility; makes a special effort; & always performs the assigned activities	3.800	0.925
76	Active participation in social collective activities (church, mosque, sports, etc.)	3.800	0.761
70	Very dependable; always takes care of personal belongings	3.793	0.559
67	Paying attention to purposeful activities for more than 15 minutes (cleaning up, & putting things away, etc.)	3.733	0.785



Table 49.--Continued.

Item	Competency Statement	Mean	SD
78	Not familiar with or afraid of strangers & does not like to have friendship with others whom he does not know	3.733	0.868
52	Understanding time intervals	3.700	0.750
72	Offering assistance to others	3.700	0.750
51	Ability to tell time by clock or watch correctly	3.667	0.844
54	Associating time on clock with various actions & events	3.667	0.758
56	Cleaning room well	3.667	0.758
62	Ability to perform a job requiring use of tools or machinery, e.g., shopwork, sewing, etc.	3.655	0.769
28	Ability to see well even with glasses	3.633	0.556
18	Independence in going a few blocks from home or work without getting lost	3.600	1.037
41	Ability to use complex sentence in speech	3.600	1.037
68	Persistence in doing tasks without being encouraged	3.600	0.770
74	Awareness of own family & others by knowing their names, jobs, relation to self, etc.	3.600	1.003
29	Ability to hear well even with hearing aid	3.586	0.733
65	Initiating most of own activities or tasks	3.567	0.817
61	Washing dishes well, making bed neatly, helping with household chores upon request, & doing household tasks routinely	3.517	0.785



Table 49.--Continued.

Item	Competency Statement	Mean	SD
26	Ability to treat simple injuries	3.500	0.820
69	Organizing leisure time adequately on a complex or a simple level, e.g., watching television, listening to radio, doing a hobby, etc.	3.433	1.040
43	Ability to read books suitable for children nine years or older	3.414	1.018
1	Independence in using table utensils correctly & neatly	3.400	0.814
44	Ability to understand complex instructions containing prepositions, requiring a decision & done in order	3.400	1.102
60	Ability to clear table of breakable dishes & glassware	3.333	0.894
46	Ability to be reasoned with, talk sensibly & to respond obviously when talked to	3.300	0.794
53	Understanding time equivalents	3.300	0.952
73	Showing consideration for others' affairs, belongings, & feelings	3.000	0.837
37	Independence in buying all own clothing	3.267	0.868
66	Having ambition & interest in doing things punctually & independently	3.233	0.817
58	Ability to properly set table using required items	3.200	0.847
38	Ability to write sensible & understandable letters	3.172	1.256



Table 49.--Continued.

Item	Competency Statement	Mean	SD
35	Ability to budget, save, & spend money properly & with planning	3.167	0.986
42	Ability to talk about action when describing pictures	3.167	1.053
57	Washing, drying, folding & ironing clothing	3.133	0.776
19	Independence in riding public transportation (auto, cab, train, plane) for familiar & unfamiliar journeys	3.067	1.230
48	Ability to repeat a story with little or no difficulty	3.067	0.868
34	Ability to use banking facilities independently	3.033	0.999
49	Ability to fill in main items on application form reasonably well	2.933	1.112
59	Ability to prepare an adequate complete meal	2.933	1.081
20	Ability to use telephone directory, private or pay telephone & to answer them to take messages correctly	2.900	1.155
2	Ability to order & eat meals at restaurants when necessary	2.867	1.106
47	Ability to read books, papers, magazines for enjoyment	2.857	1.008
30	Ability to keep body balanced upon request (i.e., stand on "tiptoe" for 10 seconds)	2.833	1.020
24	Know postage rates & buy stamps from Post Office	2.828	1.002



These 78 statements were clustered according to their occurrence in the ten major domains of the ABS to determine how the professionals generally perceived the importance of each domain as a whole. The overall professionals' perception of the domains is presented in Table 50 in order of their importance according to the computed mean ratings of each domain.

Table 50.--Rank order by mean ratings for the importance of the ten ABS domains as perceived by professionals.

No.	Domain	Mean	SD
7	Vocational Activity	3.972	.581
1	Independent Functioning	3.907	.426
9	Responsibility	3.750	.785
5	Numbers & Time	3.722	.552
10	Socialization	3.687	.573
2	Physical Development	3.637	.562
8	Self-Direction	3.513	.657
4	Language Development	3.382	.718
3	Economic Activity	3.317	.799
6	Domestic Activity	3.289	.648

As Table 50 shows, although the professionals rated the importance of the competencies in each domain with varying degrees, they perceived them all to be important for competent independent living in Egypt. The two domains rated as of the highest importance were Vocational Activity, which received a mean rating of 3.972, and Independent Functioning with a mean of 3.907. However, the two lowest domains rated by the professionals were Economic Activity (mean = 3.317) and Domestic Activity (mean = 3.289).

Comparison Between Parents' Perception
and Professionals' Perception

Part of this study concerned itself with comparing the parents' perception and professionals' perception with respect to the 78 competency statements deemed important for successful independent living by educable mentally retarded persons. Since both parents and professionals represent the closest persons to these mentally retarded individuals, they are, therefore, in good positions to identify the retarded's needs which are of high priority to their independence. This part of the results analysis presents the comparison of the two perceptions of the importance of the ten domains, as shown in Table 51. A complete comparison of each statement is provided in Appendix E.

Table 51.--Comparison of parents' perception with professionals' perception.

No.	Domain	Mean	SD	Mean	SD	t
1	Independent Functioning	3.9674	.090	3.9042	.078	.616
2	Physical Development	3.8453	.120	3.6367	.103	.193
3	Economic Activity	3.9300	.138	3.3167	.146	.004*
4	Language Development	3.1934	.119	3.3819	.131	.291
5	Numbers & Time	3.5600	.161	3.7222	.101	.398
6	Domestic Activity	3.3200	.197	3.2889	.118	.893
7	Vocational Activity	3.9333	.098	3.9722	.106	.789
8	Self-Direction	3.4080	.157	3.5133	.120	.596
9	Responsibility	3.8400	.135	3.7500	.143	.649
10	Socialization	3.5274	.151	3.6873	.105	.388

*Significant at the .05 level.



Using a t-test with an alpha level of .05 in this comparison, Table 51 indicates that although both the parents and professionals rated the competency statements in these domains slightly differently, they did not significantly differ in rating their importance for educable mentally retarded to live successfully independently in society. However, while there were no significant differences deduced in the ratings of nine domains, the parents and professionals differed significantly in rating the importance of the domain of Economic Activity. The parents rated this domain as one of the highest domains (mean = 3.9300) to be given a high priority in training educable retarded. On the other hand, the professionals viewed the competencies of this domain as of lowest importance for successful independent living and therefore should not be considered as important as the parents perceived them.

Parents' Opinion of the Impact the Mataria Program
Had on Improving the "Graduates'" Independent
Living Behaviors

The final part of this endeavor was concerned with investigating opinions the parents held toward the impact the Mataria training program had had on improving the educable "graduates'" independent living behaviors. Data related to this objective were collected from column B of Form A of the fourth part of the research instrument. The procedures followed previously in analyzing the competencies' importance were the same for this part since the same statements were used. The only difference between the two forms was in terms of the labels attached to the scale points. While a point of 1 was rated as no

impact of the Center on improving a behavior, a rating of 5 indicated that such impact occurred to a maximum degree. Therefore, any response that rated this impact below a point of 3 was considered to be an indication of a negative opinion toward the Center. In the same manner, any response that weighted this impact with a 3 or above was considered to be a positive opinion. However, a response of 0 was not considered to be a given opinion or actual information regarding the impact. Consequently, such a response was considered in counting frequencies but not in calculating the means and standard deviations of the parents' responses.

By and large, after calculating these means and standard deviations, the 78 statements were tabulated in a descending order of judged impact according to the mean ratings. Table 52 shows the outcome of this process. The frequencies of the parents' responses to this part are listed in Appendix D.

By looking at Table 52, it can be seen that the parents rated the Mataria Center's impact on improving approximately two-thirds (50) of the competencies as of a little to moderate degree. Thirty-six percent or 28 competencies were rated as having had little to no impact at all. The competencies that were rated the highest in terms of having been improved moderately were competencies 64, 63, and 62, which all fell in the Vocational Activity domain and received mean ratings of 3.125, 3.083, and 3.042, respectively. On the other hand, the least-impacted competency ratings were number 28, which received a mean rating of 1.368, and number 29, with a mean of 1.278. These two

Table 52.--Order of competency statements by means and standard deviations of the impact rated.

Item	Competency Statement	Mean	SD
64	Coming on time for work & is seldom absent, leaving it without permission or encouraged to complete jobs	3.125	1.035
63	Performing job safely, punctually, & satisfactorily	3.083	1.060
62	Ability to perform a job requiring use of tools or machinery, e.g., shopwork, sewing, etc.	3.042	0.999
71	Very conscientious & assumes much responsibility; makes a special effort; & always performs the assigned activities	2.875	0.992
55	Naming the days of the week, referring correctly to "morning" & "afternoon," & understanding difference between day-week, minute-hour, month-year, etc.	2.792	0.833
70	Very dependable; always takes care of personal belongings	2.783	1.043
72	Offering assistance to others	2.783	1.043
18	Independence in going a few blocks from home or work without getting lost	2.714	0.902
54	Associating time on clock with various actions & events	2.714	0.902
36	Independence in doing shopping & other errands (food, clothes, etc.)	2.682	1.171
73	Showing consideration for others' affairs, belongings, & feelings	2.682	1.041

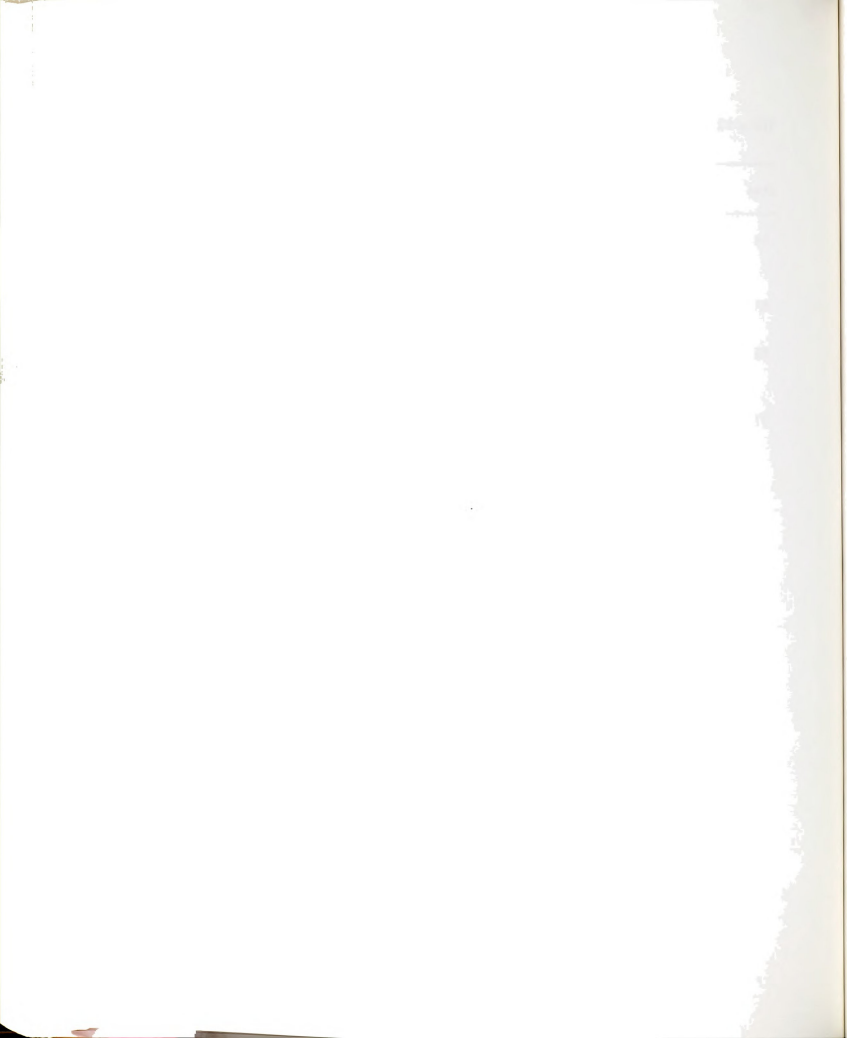


Table 52.--Continued.

Item	Competency Statement	Mean	SD
78	Not familiar with or afraid of strangers & does not like to have friendship with others whom he does not know	2.682	0.995
45	Using "Yes," "No," "Please," "Thank you" appropriately & conversing with others (peers, visitors) about sports, family, group activities, etc.	2.667	1.017
33	Ability to use both right & left limbs effectively	2.636	0.953
40	Ability to articulate clearly & properly	2.619	0.973
41	Ability to use complex sentence in speech	2.571	1.028
50	Ability to do simple addition & subtraction	2.565	1.037
51	Ability to tell time by clock or watch correctly	2.565	1.037
52	Understanding time intervals	2.545	1.057
32	Ability to control hands when performing different activities	2.522	0.947
77	Cooperation with others by taking turns & sharing	2.500	1.100
27	Know whom & how to contact when medical/dental help is required	2.478	1.310
65	Initiating most of own activities or tasks	2.478	1.039
69	Organizing leisure time adequately on a complex or a simple level, e.g., watching television, listening to radio, doing a hobby, etc.	2.478	0.994



Table 52.--Continued.

Item	Competency Statement	Mean	SD
66	Having ambition & interest in doing things punctually & independently	2.435	0.945
42	Ability to talk about action when describing pictures	2.429	0.926
31	Ability to independently perform different activities requiring walking, going up & down stairs, running, skipping or jumping	2.409	0.959
34	Ability to use banking facilities independently	2.409	0.854
53	Understanding time equivalents	2.400	1.046
68	Persistence in doing tasks without being encouraged	2.391	1.158
19	Independence in riding public transportation (auto, cab, train, plane) for familiar & unfamiliar journeys	2.381	0.921
44	Ability to understand complex instructions containing prepositions, requiring a decision & done in order	2.286	0.902
46	Ability to be reasoned with, talk sensibly & to respond obviously when talked to	2.286	0.902
37	Independence in buying all own clothing	2.263	1.240
35	Ability to budget, save, & spend money properly & with planning	2.261	1.054
76	Active participation in social collective activities (church, mosque, sports, etc.)	2.250	0.910
75	Interaction with others in group games or social activities	2.211	0.787



Table 52.--Continued.

Item	Competency Statement	Mean	SD
26	Ability to treat simple injuries	2.208	1.179
43	Ability to read books suitable for children nine years or older	2.200	0.951
74	Awareness of own family & others by knowing their names, jobs, relation to self, etc.	2.174	0.937
48	Ability to repeat a story with little or no difficulty	2.158	1.015
21	Ability to prepare own bed independently at night	2.143	1.062
30	Ability to keep body balanced upon request (i.e., stand on "tiptoe" for 10 seconds)	2.095	0.889
22	Ability to go to bed & cover self with blanket independently	2.091	1.019
39	Ability to express his feelings verbally & nonverbally (i.e., nods, laughs, etc.)	2.091	1.065
67	Paying attention to purposeful activities for more than 15 minutes (cleaning up & putting things away, etc.)	2.091	1.065
47	Ability to read books, papers, magazines for enjoyment	2.050	1.050
25	Ability to look after personal health	2.045	1.133
5	Controlling bowel & bladder without having accidents	2.043	1.186
13	Independence in wearing clean & neat clothes properly for different situations & conditions	2.042	1.122

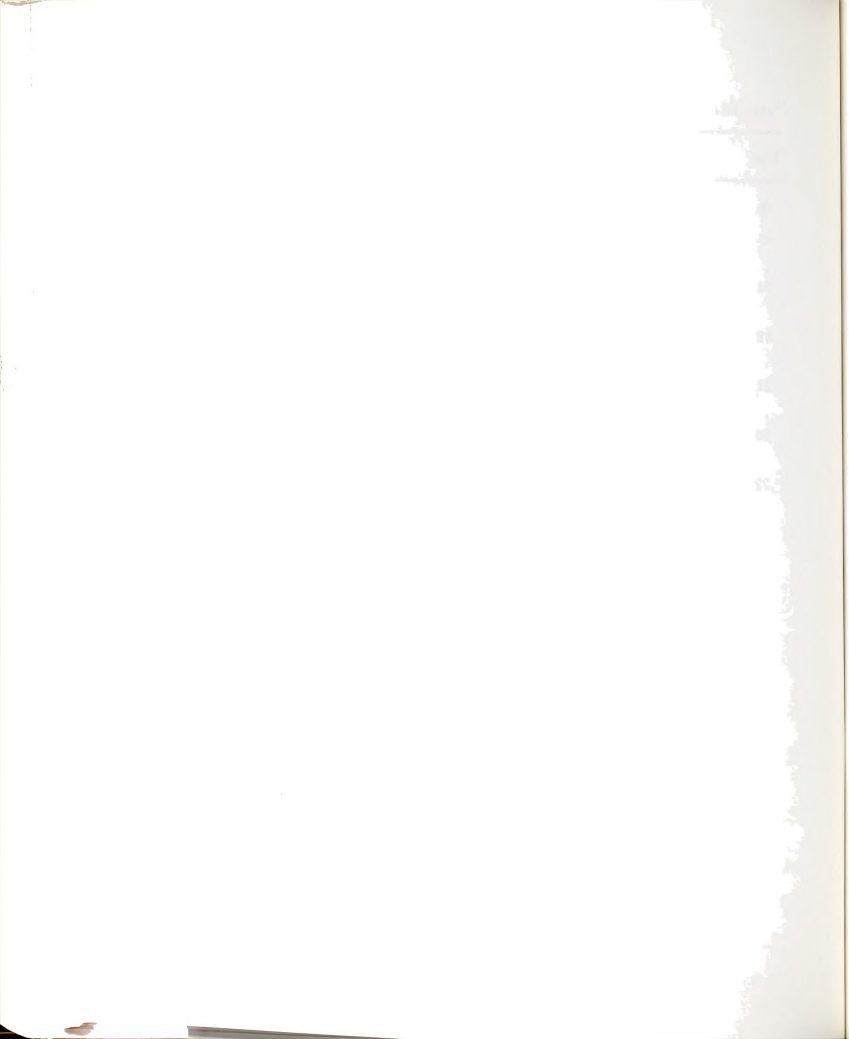


Table 52.--Continued.

Item	Competency Statement	Mean	SD
6	Independence in using toilet & urinal properly when needed & taking care of himself after having done	2.000	1.168
15	Independence in dressing self	2.000	1.113
23	Ability to control appetite ordinarily & to eat moderately	2.000	0.976
10	Independence in properly brushing teeth with toothpaste	1.957	1.186
7	Independence in washing hands & face with soap & drying them	1.917	1.176
3	Independence in properly drinking beverages	1.913	0.949
4	Knowing table manners & applying them neatly	1.913	1.083
2	Ability to order & eat meals at restaurants when necessary	1.909	0.921
17	Independence in wearing shoes, tying laces, & removing them correctly	1.909	1.109
56	Cleaning room well	1.905	0.995
1	Independence in using table utensils correctly & neatly	1.864	1.037
16	Independence in undressing self at appropriate times	1.864	1.037
24	Know postage rates & buy stamps from Post Office	1.864	1.167
38	Ability to write sensible & understandable letters	1.864	0.941



Table 52.--Continued.

Item	Competency Statement	Mean	SD
58	Ability to properly set table using required items	1.857	0.854
12	Maintains an acceptable posture	1.833	1.049
49	Ability to fill in main items on application form reasonably well	1.833	0.857
14	Independence in taking care of shoes & clothing & sending clothes to laundry	1.810	0.928
60	Ability to clear table of breakable dishes & glassware	1.800	0.894
9	Independence in grooming self regularly & properly	1.703	1.043
20	Ability to use telephone directory, private or pay telephone & to answer them or take messages correctly	1.714	1.007
61	Washing dishes well, making bed neatly, helping with household chores upon request, & doing household tasks routinely	1.700	0.865
8	Independence in preparing & completing bathing	1.696	0.974
57	Washing, drying, folding & ironing clothing	1.650	0.933
11	Ability to properly handle feminine hygiene	1.600	1.075
59	Ability to prepare an adequate complete meal	1.600	0.821
28	Ability to see well even with glasses	1.368	0.684
29	Ability to hear well even with hearing aid	1.278	0.575

competencies fell in Item A (Sensory Development) of the Physical Development domain.

Means and standard deviations of the competencies were, in all, computed as they fell in their domains to present a broad picture of the parents' opinion. Subsequently, they were tabulated in a descending order. Table 53 shows the results of this analysis.

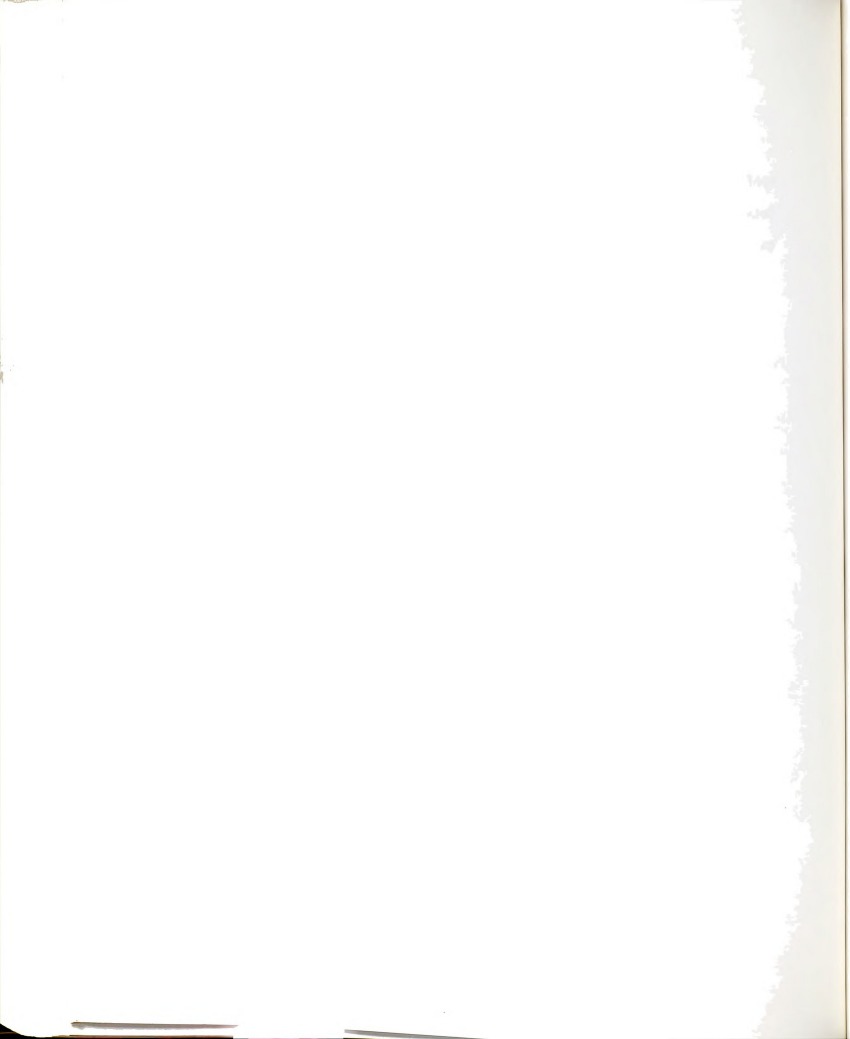
Table 53.--Parents' opinion of improvement impact on the ABS domains ordered by mean ratings.

No.	Domain	Mean	SD
7	Vocational Activity	3.083	.750
9	Responsibility	2.792	.966
5	Numbers & Time	2.533	.862
10	Socialization	2.504	.827
8	Self-Direction	2.427	.943
3	Economic Activity	2.373	.904
4	Language Development	2.176	.709
2	Physical Development	2.158	.776
1	Independent Functioning	1.974	.814
6	Domestic Activity	1.746	.713

As shown by Table 53, the parents of the Mataria "graduates" believed that the Center had a moderate impact on the improvement of the "graduates'" vocational competencies. The Vocational Activity domain was the only one to receive a mean rating in excess of 3.0 (3.083) by the parents. The Responsibility domain came in the second order next to the Vocational Activity domain. However, Independent Functioning and Domestic Activity domains were rated as the lowest domains by which they were impacted by the training program.

Chapter Summary

This chapter presented the research analysis in a fashion that conformed to the seven objectives of the study mentioned in Chapter I. Data on the "graduates" demographic characteristics and those of their families were presented in the first section of this chapter. The "graduates" were found to be primarily male, born mostly in Cairo, all of them living in it, and identified as MR mostly during elementary education. Most of the parents were alive, illiterate, and of low income and vocational status. The "graduates" were admitted to the Center as they were mostly approaching their adolescence and had an average of five years of training at Mataria. Data on the "graduates" IL status were presented in section two. A very large majority were holding jobs, earning a good income, single, and living in their families' homes. Their shopping skills were higher than those of handling and budgeting money. Their IL competencies were mostly of high to average mastery and comparable to the American norm. Parents and professionals' perceptions of the importance of IL competencies were then presented and indicated more similarities than differences between the two groups. Finally, the parents' perception of the Mataria program's impact was presented, which indicated that the Center had had little effect on the development of their children's IL competencies. In Chapter V, a summary of the previous chapters, along with discussion and recommendations, is presented.



CHAPTER V

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

Summary

Purpose

The primary aims of this study were to gather basic socio-demographic information regarding the "graduates" of the Mataria Center of Egypt and to describe their independent living status. It also aimed at determining the specific independent living competencies needed by mentally retarded persons in Egypt. Two related goals of the study were to examine the parents' opinion related to the impact the Mataria program had on improving the "graduates'" independent living behaviors and to provide feedback to increase the effectiveness of ongoing habilitation programs serving the retarded population in Egypt.

Review of Literature

A review of literature related to the concept of independent living revealed the universality and relativity of this concept. Problems of its definitions bear both on cross-cultural differences among countries and on differences in values within a specific country. Follow-up studies of both formerly institutionalized retardates and "graduates" of special public school classes were reviewed. This review indicated that those retardates were generally capable of



independent functioning in the community. The criteria of "success" and "failure" used in these studies were inconsistent. A review of literature on the adaptive behavior concept indicated its strong relationship to independent living. The AAMD-ABS was found to be the best and most widely used tool we have in measuring community adjustment skills of retarded persons. A rationale was made for selecting Part I of the scale for realizing the study objectives.

Population and Sample

The population investigated in this study comprised those mentally retarded persons who had completed their habilitation program at the Mataria Center in Egypt between 1976 and 1980. Fifty "graduates" were randomly selected and equally divided into two groups according to the objectives of the study. The subjects' parents represented them in interviews conducted for collecting the data. The Mataria staff members also participated in this study, comprising a third group.

Instrumentation

A four-part instrument was used in collecting data. Part One included a set of questions regarding socio-demographic information about the subjects and their families. Part Two was designed to obtain information related to the subjects' vocational status. Both Part One and Part Two were used with all the subjects of the two groups. However, as Part I of the ABS comprised the third part of the instrument, it was used in measuring the independent living competencies of Group



One of the subjects. Part Four consisted of two forms, A and B, in which 78 competency statements were included as modified and built around the ten ABS domains. Form A was used with parents of Group Two to probe their perception regarding the importance of the statements to independent living and the impact of the Mataria program on improving these competencies. Form B was used with the Mataria professionals for obtaining responses regarding demographic information as well as their perception of the importance of the same 78 statements included in Form A. Data collected for the purpose of this study were analyzed by performing descriptive statistics (mean and standard deviation) and t-tests.

Summary of Major Findings

The "Graduates'" Demographic Characteristics

The vast majority of the total number ($N = 50$) of "graduates" who participated in this endeavor were males who were born in Cairo and in the third decade of age. While some of them were born outside Cairo, they were all living in Cairo, clustering in the Mataria neighborhood or in suburbs close to it. A majority of the "graduates" (64%) were identified as mentally retarded before they entered school or during school years. Identification occurred mostly by school workers such as teachers, for the most part, school clinic, or school psychologist. However, a big portion of the subjects were identified either by parents or other people related to the family in one way or another. The causes of mental retardation in the majority of the subjects were



unknown. Approximately one-third of the "graduates" were suffering from other disabling conditions in addition to mental retardation. The "graduates" IQs were found to be dispersed on a continuum of points which ranged between 50 and 70. However, a relatively large portion of the "graduates" (36%) had IQs of 65 to 70. The Stanford-Binet was used for the most part (86%) in assessing the "graduates" IQs upon their admission to the Center.

Socio-demographic Characteristics of the "Graduates" Families

Data collected on socio-demographic characteristics indicated that for the majority of the "graduates" both parents were alive at the time of this study. Only the fathers of 14 "graduates" were dead. Also, the majority of the "graduates" came from families with relatively large sizes. Moreover, the majority of the "graduates" parents were either illiterate or, at most, graduates of sixth grade. Both the parents' vocational and income status varied according to their educational levels. However, the majority of parents earned between \$20 and \$99 per month.

The "Graduates" Educational History

Data collected from the "graduates" records in the Mataria Center indicated that they were admitted to the Center at an average age of 15.84 years and mostly after they had completed or been discharged from elementary schools. Before their graduation from the Center, they were trained for varied periods of time, which averaged 45.9 months or five school years. The majority of those graduates did

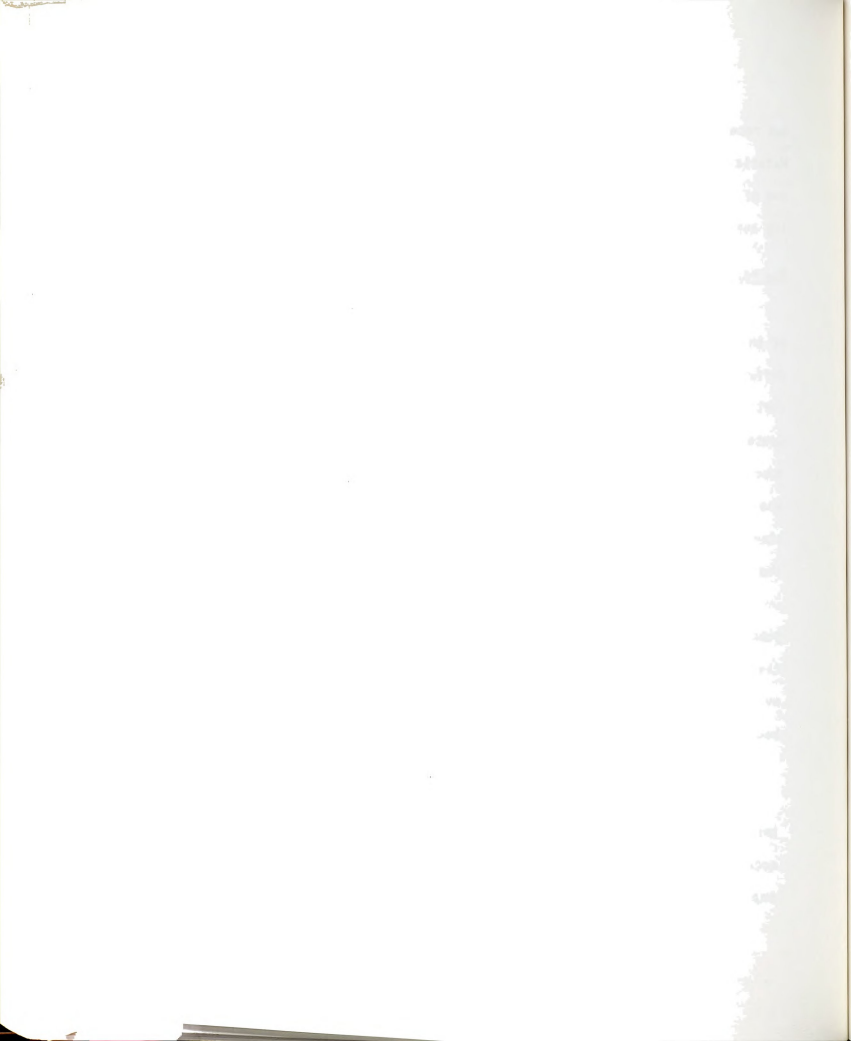


not receive any special educational training before entering the Mataria Center. However, 15 of the subjects or 30% were able to attend one of three different types of special educational settings for varying numbers of years.

The "Graduates'" Vocational Status

The data collected indicated that a very great majority (86%) of the "graduates" had been working at the time of this study in different jobs for an average of 2.6 years. The types of jobs held reflected, to some extent, both the vocational training received at the Center and those jobs that were typical in the open market for not-well-educated people. The "graduates'" employment was stable, although this was indirectly inferred from the time that had passed since they started their jobs. Both the private and public sectors accounted for the most common source of the "graduates'" employment (86%).

Slightly over half of the employed "graduates" obtained their jobs through the efforts of three different placement officials, namely the Center counselor, placement officer, and Labor Force Office. However, the remaining "graduates" were helped by efforts of different benefactors in their neighborhoods. Approximately two-thirds of all the "graduates'" parents, regardless of their employment, did not think the Center had helped their children acquire job skills or to choose permanent jobs. Only 56% indicated that the Center helped them to acquire work habits. However, the great majority of the parents of employed "graduates" indicated their children's satisfaction with their



jobs because of the high rate of payment, the suitability of jobs being held, and, above all, a feeling of being able to support themselves and their families. On the other hand, very few subjects (six) were reported dissatisfied with their jobs, mostly because of their unsuitability or having conflicts with job supervisors.

Five subjects were unemployed at the time of the study, but they had been employed after their graduation. However, they had to quit their jobs mostly because these jobs were difficult to handle.

The "Graduates'" Income Status

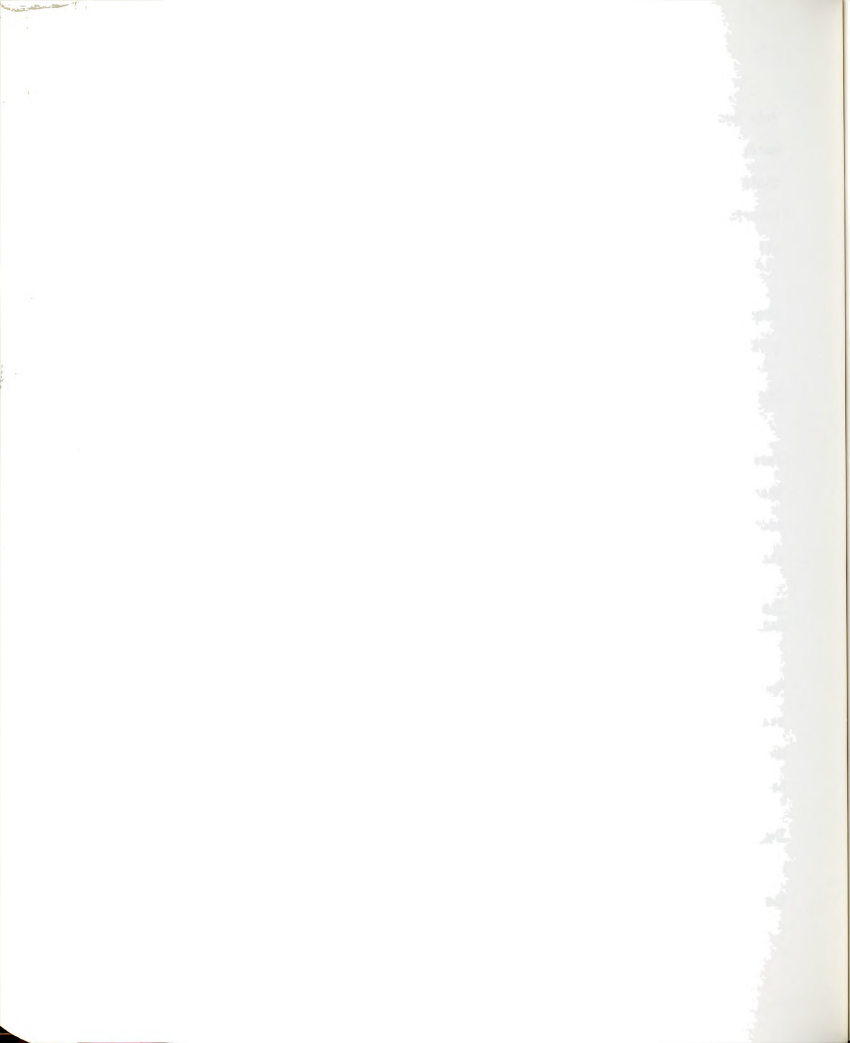
The employed "graduates" overall monthly incomes ranged from less than \$20 to \$60, with a median income of \$30, which was higher than the monthly minimum wage defined by the Law of Force. In addition, this median income is comparable to that of other Egyptians who are generally not well educated.

The "Graduates'" Ability to Handle Economic Activities

Table 40, which was presented earlier, indicated that the "graduates" ability to handle and budget money earned was relatively weak as it came, generally, at a below-average level (mean = 46.5). However, their shopping skills were higher (mean = 73.3) than those of handling and budgeting money.

The "Graduates'" Marital Status

The majority of the "graduates" or 86% were still single after their graduation. However, four graduates (8%) were married and had



children, and three others (6%) were married and did not have children. Of the married "graduates" only two were females; the remaining five were males.

The "Graduates'" Living Status

Of the married "graduates," five were living with their own household and two others were living in their parents' houses with their siblings, wives, and children. The single "graduates" were all living with their parents and siblings in the parents' houses.

The "Graduates'" Independent Living Competencies

The independent living competencies of the "graduates" which were rated by their parents on the ABS were generally of high to above-average level of mastery in nine of the ten domains (means ranged from 92.83 to 60.71) and very slightly below average only in the Domestic Activity domain (mean = 49.56). A more specific analysis of the "graduates'" competencies in the ABS subdomains revealed that these competencies were of higher mastery in four subdomains, of high to above-average mastery in 17 of the subdomains, and of relatively weak mastery in four other subdomains, with Leisure Time being the weakest of all.

When the independent living competencies of the "graduates," were compared to the American normative sample, the comparison revealed many more similarities than differences between the two groups. Two competency areas (language development and self-direction) of the American normed group were significantly higher than those of the

equivalent Egyptian group. Only one area (Economic Activity) of the Egyptian group was significantly higher than that of the American norm.

Parents' Perception of Needs in All 78 Competencies

In general, the "graduates" parents regarded 71 competencies as important for educable mentally retarded to practice successful independent living in Egypt. Parents' mean ratings ranged from as high as 4.6 to a low rating of 3.0. Seventeen of the highest-rated competencies fell in the Independent Functioning domain. However, 7 of the 78 competencies were rated as the least-needed competencies for independent living, with mean ratings ranging from 2.96 to 2.5.

When these 78 competencies were grouped into their major domains, they were all rated important, with mean ratings ranging from 3.96 to 3.19. The most-needed competencies fell in the Independent Functioning, Vocational Activity, and Economic Activity domains. The least-needed competencies fell in the Language Development domain.

Professionals' Perception of Needs in All 78 Competencies

Of the 30 professionals who participated in this endeavor, 18 were females (60%). Teachers and social workers made up the greatest number of respondents. The Mataria staff members had been working mostly with educable retarded persons for different numbers of years, which ranged from 1 to 27 and averaged 10.3 years. A close examination of the staff's formal training indicated that the majority of them

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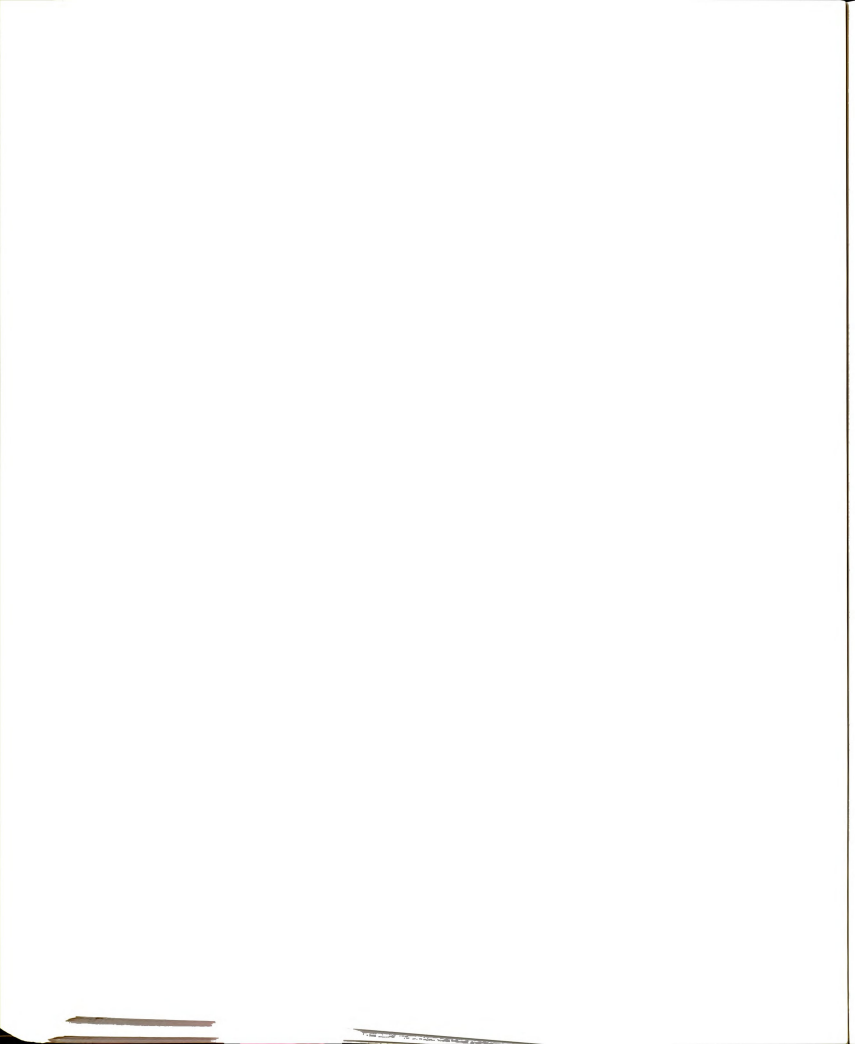
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actually had had no formal training in dealing with mentally retarded persons.

These professionals' responses to the importance of the 78 competencies were very much like those of the parents, in that they viewed 71 competency statements to be of definite importance for independent living. The mean ratings of these competencies ranged from 4.6 to 3.03. Fourteen of the highest-rated competencies fell in the Independent Functioning domain. However, seven competencies were rated by the professionals as the least-important competencies for independent living, with mean ratings ranging from 2.9 to 2.8. The overall perception of the 78 competencies according to their occurrence in the ten major domains indicated that all ten domains were considered definitely important for independent living. The two highest-rated domains were Vocational Activity (mean = 3.97) and Independent Functioning (mean = 3.90). However, the two lowest-rated domains were Economic Activity and Domestic Activity.

Comparison Between Parents' and Professionals' Perceptions

The comparison of the two perceptions revealed that except for the Economic Activity domain there were no significant differences between the two groups regarding the IL competencies needed by the educable mentally retarded. However, although both parents and professionals agreed on the importance of the Economic Activity domain, they significantly differed in rating the degree of its importance.



Parents' Opinion of Mataria's Impact
on "Graduates'" Competencies

Data revealed that the parents believed 52 of the 78 "graduates" independent living competencies had been affected by the Mataria training program from a little to a moderate degree. Twenty-eight competencies were rated as having had little to no impact at all. Competencies 64, 63, and 62, which all fell in the Vocational Activity domain, were rated the highest, and competencies 28 and 29, which fell in the Sensory Development domain, were rated the least-affected competencies. However, when the parents' ratings were computed for all the competencies within the ten major domains, it became evident that Vocational Activity was the most affected domain (mean = 3.08), whereas the Independent Functioning and Domestic Activity domains were affected the least.

Discussion

Unlike some previous studies, the present study has attempted to investigate the independent living status of Mataria adult "graduates" by using criteria of adjustment that were more objective and specific, more relevant to training goals, and potentially more closely related to measurable characteristics of the "graduates" or their training program. It has considered the broad question of their independent living status from the perspective of community adjustment. Thus, within a frame of reference to both the cultural and social norms as well as economic conditions of the Egyptian society, the study has focused its attention on the Mataria "graduates" as they were

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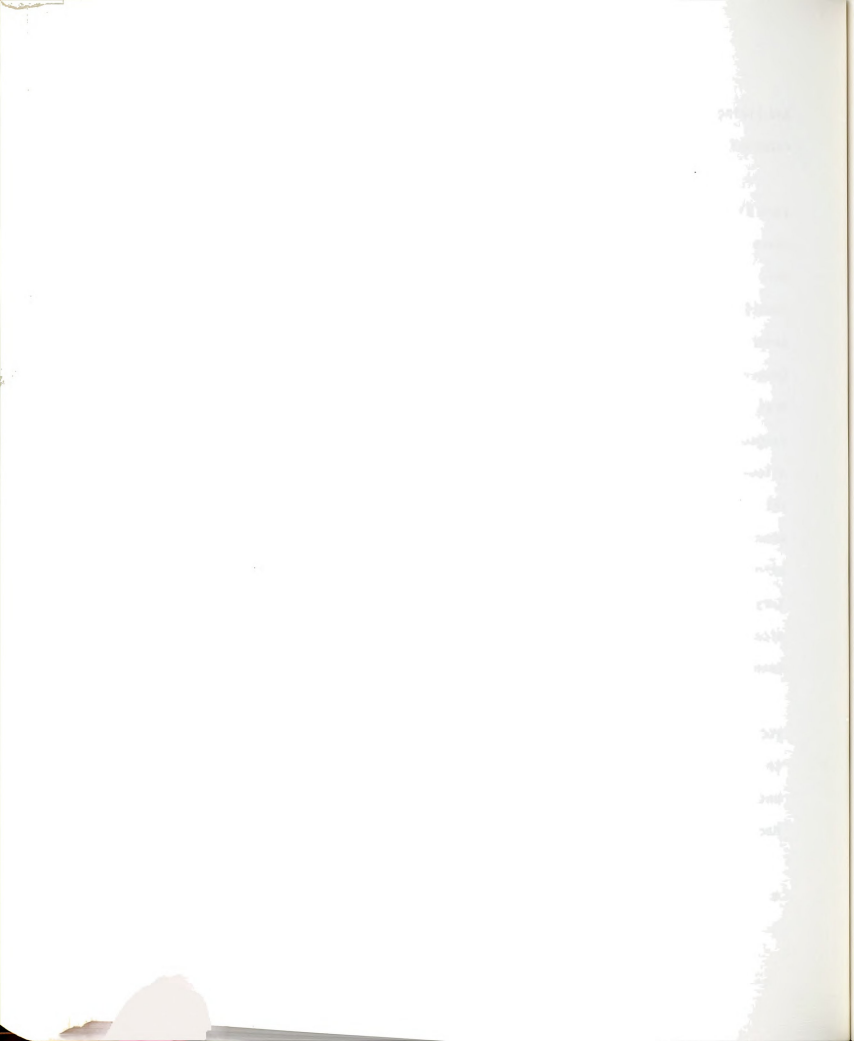
functioning in their society. Conducting the study this way has resulted in findings that will be discussed in this section. The discussion focuses only on major findings that might be of particular interest.

1. The analysis of the "graduates" demographic characteristics revealed that mentally retarded who applied for habilitation services were predominantly males (78%). This may be due to two reasons. First, the Mataria Center usually restricts its services only to male retardates. Females usually apply to another center located in another suburb of Cairo which, perhaps, was far away from where some females lived. Therefore, the Mataria Center admitted them on an exceptional basis. A second factor might be cultural in that females, especially those who were born to families coming originally from rural areas, are less willing to apply for habilitation because the parents prefer their daughters to stay at home until they get married.

2. The majority of the "graduates" were born in Cairo and had been living in it since birth. Although a few of them were born in rural areas away from Cairo, they moved later to Cairo and also had been living in it for a minimum of 17 years. Being born or reared in such an urbanized and crowded city has great significance for the adjustment of the retarded adult. The adult would be more expected to handle a relatively complicated job, be self-sufficient, and conform to social and economic norms than another retarded person who was born and still lives in a rural area or even a small city. Such a rural retarded adult would be receiving necessary support, given a small job,

and living in a social atmosphere which is much more tolerant of the retarded.

3. The results indicated that the majority of the subjects were first identified as mentally retarded during the elementary school years by a school teacher, a psychologist, or a school clinic. While this is in line with the fact that more cases of mental retardation are identified during school years, very few subjects (15) were able to benefit from special education services before applying to the Mataria Center. The results reported previously in Table 18 also indicated that 68% of the subjects were admitted to the Center at ages that ranged from 15 to 20 years. Taking for granted that no student is allowed to stay in public elementary school for more than eight years (El Homossani & Mohamed, 1978) and by putting these results together, a conclusion would be made that the majority of the graduates were not exposed to any special education services, either during their elementary education or after their discharge from it and before their admission to the Center. The years that were wasted could, instead, have been beneficial to the subjects' adjustment if the subjects had spent these years in special education schools or in some type of pre-vocational training. In addition, the subjects' parents did not seem to know that rehabilitation services were available to their children until a long time had passed since they finished elementary school. Another possibility could be that the parents were aware of them but did not care until their children were close to or had passed the minimum age (18) specified for employment. Only then, the parents



started looking for a place where their children could be trained and, perhaps, guaranteed a job.

4. The conclusion reached above may be supported, at least in part, by other data which indicated that the majority of the "graduates" (68%) came from families with relatively larger sizes than the general average family size in Egypt. Meanwhile, the majority of the "graduates" parents, particularly mothers, were either illiterate or of low educational levels. Most of the parents held low-prestige jobs that yielded them very poor incomes (median income = \$75). Moreover, 28% of the "graduates" fathers were dead, and the responsibility of caring for such a large number of children rested, therefore, on the mothers' shoulders. These results presented in Chapter IV would suggest that most of the subjects came predominantly from low and middle socioeconomic classes, and thus those parents did not place a high value on their children's education. This can be further supported by the fact that such low- and middle-class parents are not typically as involved in educational programs for handicapped children in Egypt as they are in the United States. Additionally, the subjects' mental retardation, which is a developmental disability, seemed to be likely associated with such socioeconomic variables as larger family size, parents' illiteracy, or low-prestige educational level, income and occupation and, above all, their lack of understanding of the nature of mental retardation.

5. Despite the factors discussed above, a very large proportion of the Mataria "graduates" (45) were found to be satisfactorily

adjusted and living independently in their community. This confirms what was previously reported in Chapter II--that a large proportion of the population classified as mildly/educable mentally retarded are capable of adequately coping with independent living. This conclusion can be supported by discussing the following results:

A. Approximately 90% of the subjects were employed at the time of the study. Although no employment information was reported regarding two recruited "graduates," it should be noted that any Egyptian who is recruited gets paid while in service, perhaps higher than he would have if he were employed before joining the military service. The employed "graduates" could be said to hold stable jobs as they had worked for an average of 2.6 years since their graduation. Jobs were primarily in unskilled or semi-skilled occupations in the private sector and the public sector, although a few held jobs in government, personal endeavors, or as laborers. The most common occupations tended to reflect both the types of vocational training the "graduates" had at the Mataria Center and those jobs that are typical in the Egyptian job market for people who are not well educated.

The data indicated that the highest employment rate was in the private sector (51%), followed by the public sector as the second most common source of employment. It is worth mentioning that the Public Law of 1975 for rehabilitation of disabled requires employers in Egypt who have 25 or more employees to hire 5% of them from among handicapped people who are licensed by a rehabilitation facility. Although the private sector mostly consists of small industrial enterprises and



businesses that are not required by this law to apply the 5% quota system, there is a mutual interest in such employment of the handicapped (Mohamed, 1982). For the subjects, such employment in the private sector is obtained very quickly and offers a higher rate of payment. On the other hand, the paucity of labor force, especially among those who work on an apprenticeship basis, implies a greater demand for those who are rehabilitated.

Moreover, the "graduates" job placement rests on the cooperation between the Ministry of Social Affairs, which assumes the responsibility for establishing and directing rehabilitation institutions in Egypt, and the Ministry of Labor, which monitors employment quotas previously mentioned. As only approximately half of the graduates were employed through placement officials' efforts and the other half through the efforts of benefactors (see Table 27), a reason might be speculated. As Mohamed (1982) pointed out, the problem of job placement of mentally retarded in Egypt is that the 5% quota is for all handicapped people, whether they are severely or slightly disabled. Hence, the placement officials of different disability groups compete among themselves to fill the quotas on one hand, while the employers, on the other, may be choosing the more capable disabled persons. Consequently, we may find clusters of blind, mentally retarded, or hearing impaired working in one place as the competition occurs between their counselors and their governing board members. At any rate, whatever the reason might be, a great majority of the "graduates" were able to obtain jobs, regardless of the efforts through which they found them.

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However, those placement factors mentioned above tended to affect the parents' perception regarding vocational gains the Center could provide to their children. Although a large proportion of the parents denied that the "graduates" were helped by the Center in gaining job skills or in choosing a permanent job, 56% admitted that the Center did help in establishing the "graduates'" work habits. This contradiction by parents could possibly be interpreted by saying that the large proportion of parents who denied getting any help from the Center might be those whose children were able to secure employment without the aid of the Center and therefore would not mention its role in helping the "graduates" at all. Parents may think if a rehabilitation facility could not get you a job, it has not helped you in any manner. It is possible, too, that the parents' perception of low Center support has its roots in unrealistic levels of aspiration and in poor awareness of the competition in the job market.

B. Another indicator of the "graduates'" vocational adjustment was job satisfaction. As this indicator was evaluated along several dimensions, including job suitability, salary, type of employer, and co-workers, results with the "graduates" were not significantly different from norms available for other groups of nonretarded, handicapped, unskilled, and blue-collar workers. The greatest degree of expressed satisfaction occurred with regard to suitability of job, high salary, and having good friends or co-workers in the job. Moreover, the vast majority of the "graduates" were satisfied with their employment mainly because it gave them a feeling of being on



their own and being able to support themselves and their families. As this reason was mentioned by the parents, it is evident that they viewed their children as independent, regardless of other limitations the "graduates" might have had, as long as they were employed and could support themselves. On the other hand, the parents of the "graduates" who were found unemployed at the time of the study mentioned that those "graduates" (10%) were first employed, but they quit their jobs for different reasons, the most frequently mentioned being difficulty of the work. This might be viewed as a more serious source of discontent and poor work adjustment for those few "graduates" than is their dissatisfaction with other work characteristics.

C. In terms of the "graduates" income status, data indicated that the total monthly income ranged from less than \$20 to \$60. The overall median income for all the employed "graduates" was \$30. This could be considered as an indicator of the "graduates" ability to live independently as this income median is higher than the monthly minimum wage defined by the Law of Force in Egypt and is comparable to that of other Egyptian people who are generally not well educated. With this income the "graduates" were able to support themselves and their families, especially those whose parents were dead and who lived with their mothers and other siblings.

D. With respect to the "graduates" marital status, the data showed that 7 of the 50 "graduates" were married at the time of the study. Four of them had children and the other three did not. As has already been noted, getting married among urban youth, especially

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those who live in Cairo, has generally become a difficult matter in Egypt in the last two decades even for nonhandicapped people. This may shed some light on the large proportion of unmarried "graduates." Hence, this proportion may possibly be interpreted as a reflection on the present economic situation itself rather than diminishing the "graduates'" social adjustment as they may wrongly be thought of as being undesirable persons whom no one would aspire to marry. As all the "graduates" were living in Cairo, being able to become a householder, to handle marital responsibilities, and to find an apartment in which to live in Cairo have become greater burdens for getting married even for middle-class youths living in Cairo.

E. Another indicator of the "graduates'" adjustment, which may be related to the finding just mentioned, is their living status. As the data showed, all the single "graduates" had been living with their parents and siblings in one house, whereas some of the married "graduates" lived along with wives and children in the parents' (the family's) house and some others lived in their own households. This should not be misinterpreted as diminishing the "graduates'" ability to live independently or to manage most of their own daily activities. It is not only the economic conditions that might be viewed as contributing to the "graduates'" living status. Over and above this, strong family ties, extended family, religious beliefs, and the tolerance level among members of the Egyptian family, particularly among the low and middle classes, all play a greater role in defining personal and social responsibility for retarded adults. While individualization and

full self-sufficiency are ideals in developed countries, it is contrary in Egypt, where families view the retarded adult living with them and receiving necessary support and direction as a moral and religious obligation. Doing the opposite might jeopardize the family's reputation to the accusation of dishonor or of being heartless. Moreover, the "graduates'" living status might have worked positively rather than negatively for them. Living integrated with their families in the community might have provided them with the spirit of helpfulness and with adequate behavioral models to which they could adapt and follow. The following discussion should add more support to this point.

F. As the "graduates" were rated by their parents on the various ABS items that evaluated their skills in ten domains related to their independent functioning in daily living, and by taking a general look at the results reported in Chapter IV, the reader can get the impression that those "graduates" tended to do better in areas in which their training at the Center had a closer approximation to competencies needed in actual community living. Thus they mastered most of the skills at different levels in most of the ABS areas. Most of the skills rated by the parents from higher to above average seemed to be in subdomains or areas that were actually needed by their children to live independently. However, the skills that were rated as either average or below average seemed to be in areas where the "graduates" were not well trained or those which were relatively hard to provide realistic experiences at the Center, or not viewed as important for independence. For example, Telephone Use, an item on the General

Independent Functioning subdomain, is not available even for many "normal" people in the community. As 92% of the "graduates" rated in Group One were males, the mean ratings on the Other Domestic Activities, Kitchen Duties, and Cleaning subdomains were relatively weak. The weaknesses in these subdomains may be related to a cultural factor rather than to inadequacy in the "graduates" ability to handle such activities. The fact that such activities are expected to be done by females (i.e., mother, sister, wife) in the Egyptian family rather than males would shed some light on the "graduates" competencies in these areas as not actually required for their independent functioning. Some of them may have been able to do these activities but these were not required of them.

On the other hand, Skills in Money Handling, Leisure Time, Comprehension, and Social Language Development were found inadequate in comparison with other skills in other subdomains. While it is difficult to deny the importance of such skills to the "graduates" social adjustment, their weakness here might be related to inadequate training or to the interference of other variables in the "graduates" environment as they mostly came from deprived families who may have placed a low value on competencies in these areas. The writer's first-hand observation of the Mataria program indicated that more emphasis was put on vocational training than on language development, computation, and social activities. The weaknesses in these areas, therefore, might be related as well to the program staff, who might have viewed these competencies as being of low priority in the training process.



Moreover, shortages in community resources available for spending leisure time as well as the general attitude of the community toward the handicapped in general and the mentally retarded in particular might have contributed to the noticeable weakness in this area. If these explanations are correct, then the major weaknesses in these areas would be, at least in part, the results of the training program, the parents' perceptions of the "graduates," and/or the cultural frame of reference in which the "graduates" were perceived.

G. The "graduates" independent living competencies may be considered from a different angle in light of the results of the comparison previously made between the American normative sample and the equivalent 19 "graduates" of the Egyptian group. The lack of significant differences between the two groups on seven domains may suggest the universality of competencies included in those domains as needed by educable mentally retarded adults to live independently in any community. It may also suggest that the Egyptian group has mastered those competencies at a reasonable level at which the American norm was established. However, the American group was found to be significantly higher on the Language Development and Self-Direction domains. This might be interpreted as that the American adults in the normative sample had sophisticated training and were exposed to or provided with opportunities to establish their competencies in these two domains. Besides, the American culture places a greater value on one's self-direction than does the Egyptian culture. On the other hand, the Egyptian group's being significantly higher than the American

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norm on Economic Activity might possibly be explained by the fact that the "graduates," especially those who were married, were to carry their responsibility in supporting themselves and their families. Such a responsibility may have contributed to improving their competencies to be higher than those of the Americans. By and large, the comparison has confirmed the conclusions made and discussed above regarding the independent living status of the Mataria "graduates." The great majority of them handled their jobs well, were steady workers, made comparable incomes, some were married and had children, and were generally mastering most of the independent living competencies.

6. Now, the discussion will focus on results concerning the perceptions of both the "graduates'" parents and the Mataria professionals with respect to the importance of independent living competencies. As has already been indicated, both responding parents and professionals regarded 70 of the 78 competencies as important for living independently by educable mentally retarded in Egypt. Respondents' mean ratings of the 71 statements ranged from above average to nearly vital. Such ratings by both groups would suggest that those competencies should be included in the Mataria training program as the specific competencies for which the educable retarded should be trained. The ratings also suggest that although these competencies were originally thought of as important for the same group of retarded in the United States, they are very relevant to the Egyptian society and to the independent living of the same group in Egypt.



It was noticeable that 14 to 17 competencies, which fell in the Independent Functioning domain, were rated by both responding groups as among the highest competencies needed by the educable retarded. This would indicate that both groups regarded these competencies as prime skills for independent living and, therefore, should be given a high priority in the Center's curriculum. However, while the parents and professionals also agreed on the number of lowest-rated competencies (seven), they differed over the ratings of three of these competencies and agreed on four of them. The four competencies that both groups agreed on as the least-needed ones were the following:

- Knows postage rates and buys stamps from Post Office.
- Ability to prepare an adequate complete meal.
- Ability to read books, papers, and magazines for enjoyment.
- Ability to fill in main items on application form reasonably well.

A close look at these competencies seems to suggest that, considering the socioeconomic background of those graduates, both responding groups felt that they were not critically important for the "graduates'" survival in their community. The other three competencies on whose degree of importance both groups disagreed were the following:

1. Ability to use telephone directory, private or pay telephone and to answer them or take messages correctly.
2. Paying attention to purposeful activities for more than 15 minutes (cleaning up, putting things away, etc.).
3. Ability to write sensible and understandable letters.
4. Interaction with others in group games or social activities.



5. Ability to order and eat meals at restaurants when necessary.
6. Ability to keep body balanced upon request (i.e., stand on "tiptoe" for 10 seconds).

While the degree of difference in the mean ratings of the telephone use is not that significant and, therefore, it is still regarded as one of the least-important skills by both groups, the degree of difference between the two ratings of competencies 2-6, listed above, was very apparent. The parents, influenced by their socioeconomic background, did not think competencies 2, 3, and 4 were very important to their children, whereas the professionals thought the opposite, as was the case with competencies 5 and 6 listed above.

When all the 78 competencies were clustered in their ten major domains, it became apparent where the significant differences between the two responding groups lay. Both the parents and professionals considered all the ten domains to be definitely important for the independence of educable retarded. This confirms what has just been suggested--that the competencies of independent living as included on Part One of the AAMD-ABS are culturally relevant and can be used in habilitating educable mentally retarded in Egypt. It further suggests that including these competencies in the Mataria Center program would increase its effectiveness to meet the needs of this population in Egypt. However, while both groups agreed on the importance of these ten domains, they differed somewhat in the degree of importance for each one to be given priority in the training program. Both the parents and professionals gave the first priority in training to



Independent Functioning and Vocational Activity. They also rated the Physical Development, Responsibility, Numbers and Time, and Socialization domains as the second priority in training. As for the Self-Direction, Language Development, and Domestic Activity domains, they were given the third priority. However, the significant difference between the two groups was actually noticed in the priority that should be given to the Economic Activity domain. While the parents viewed the skills of handling and budgeting money and the skills of shopping and purchasing to be as important as the skills of independent functioning and vocational activity and therefore felt they should be given the first priority in training, the professionals, on the other hand, viewed training for these skills as perhaps the parents' responsibility in the first place, and thus thought they should not be stressed as important as other domains.

The professionals might have been influenced in their rating of this domain by their prior knowledge about the deprived economic background of most students who had been trained in the Center. The writer's conviction is that skills in the Economic Activity domain are very critical to one's independence, especially for retarded people. Hence, he views the professionals' underestimation of the importance of these skills as suggesting some lack of awareness of the retardate's needs.

7. In terms of the impact the Mataria training program had had on the development or improvement of these 78 competencies, the parents did not seem to believe that the Mataria program was strongly helpful



in this respect. The parents viewed competencies related to vocational activity as the only ones to be affected by the training. Nevertheless, their rating of the impact on this domain did not significantly exceed a moderate degree of effect. Other domains were affected to a degree that ranged from below moderate to little effect. The Independent Functioning and Domestic Activity domains were believed to be the least affected by the program.

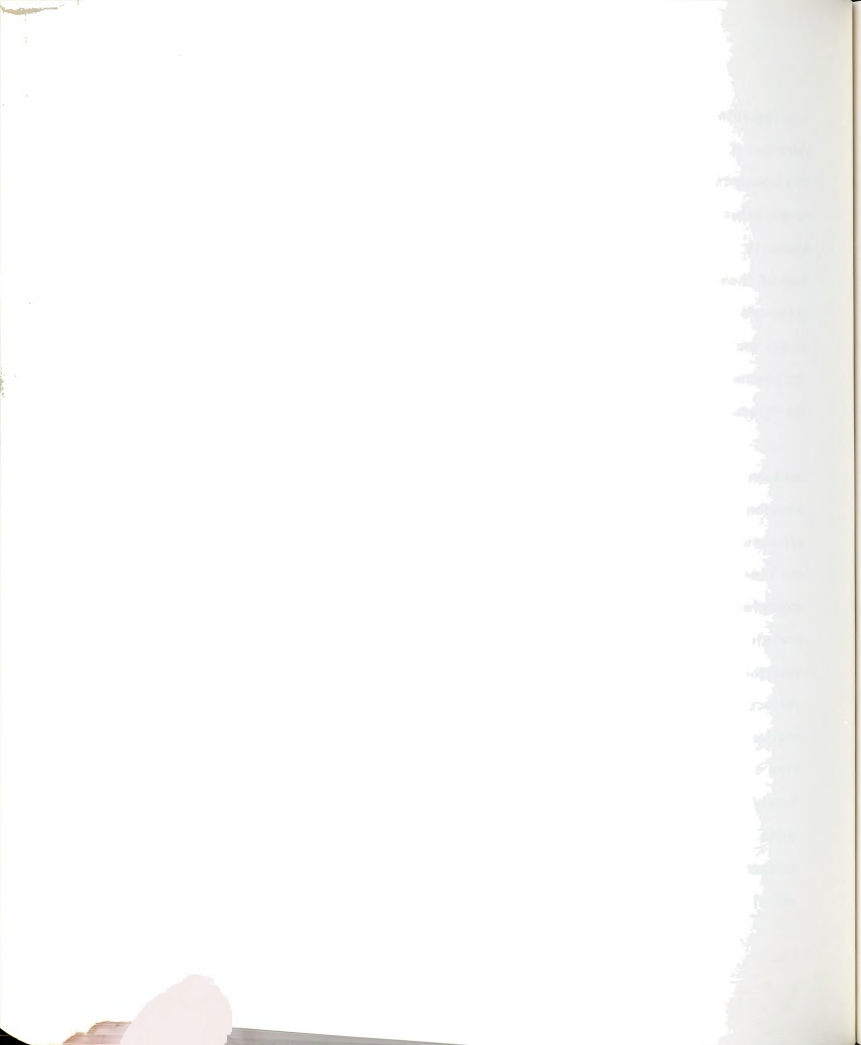
It is interesting that by looking back to Table 50, the reader will notice a striking phenomenon. Except for the Independent Functioning domain on that table, the domains that were rated as of highest importance to independent living by the professionals were the same domains rated the highest by the parents as having been affected in their improvement by the program. On the other hand, Domestic Activity, which was rated as of lowest importance by the professionals, was the same domain affected the least as viewed by parents. This could probably be viewed as a testimonial to the parents' opinion. That is, what the professionals believed was important to independent living was in turn emphasized in training those "graduates."

Nevertheless, a final comment should be in line with the discussion of findings regarding the parents' opinion of the Mataria Center's impact on their children's independent living skills. This comment relates to what the reader might notice in Appendix D, Table D-5, where the frequency distributions of this part are listed. By looking at that table, one may notice that a disproportionate number of parents' responses were recorded as of no opinion or no information

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type regarding a given competency statement. Except for statement 11, which had a striking percentage (44%) of no-opinion type, all the other 77 statements had a percentage of frequencies of the same type which ranged between 4 and 24. Taking these portions of frequencies as a whole, it could be viewed as an indication that the parents, at least some of them, were unaware, to some extent, of the nature of their children's training. While this is speculation on the writer's part, it may account for the somewhat negative opinion of the parents regarding whether or not the Mataria program had affected the improvement of the "graduates'" independent living skills.

The fact that those "graduates" were not institutionalized and had been living with their families since birth would leave a critical question for the actual impact the Mataria Center had had on their adjustment. The subjects were diagnosed as mildly/educable retarded at the time of their admission to the Mataria Center. They averaged approximately five years of training by the Center. Since the overwhelming majority of them came from extremely deprived backgrounds, the question arises whether the adjustment of the majority of "graduates" reflected the care and stimulation provided by the Center, or the challenges of independent living might also have produced some cognitive increments in the "graduates." Moreover, the fact that approximately half of the employed subjects were employed according to the 5% quota system makes their vocational adjustment questionable. As those subjects' employment was imposed by the Law Force on employers, it is not clear whether their job stability and satisfaction were resulting



from good performance or from the employers' compliance with the quota system. The study's inability to document its findings by data regarding the nature of the training curriculum, graduation criteria, how training plans were decided on for each subject, the validity of assessment measures used, and the actual reasons for job stability and satisfaction leaves a broad question to be answered regarding the impact of the Center on its "graduates'" independent living and their intellectual growth. Moreover, the demographic data regarding the professionals suggest that most, if not all, of them at the time of the study did not have formal training in habilitating mentally retarded. The impression generated is that differentiated role concepts were difficult to extract from their formal training. Besides, functions were widely scattered through the professions dealing with the mentally retarded persons, and the most typical type of training background is that of social work. Moreover, the Mataría Center was not appropriately staffed. For instance, while there was a large proportion of social workers and psychologists, teachers, who are supposed to be the dynamic tool in the training process, were few and insufficiently trained in dealing with this population. As this may be true of special education and rehabilitation services in developing countries, it may suggest an urgent need for an in-service type of training and establishing teacher training programs in universities as well.

Recommendations for Possible Implementation

In Egypt today, the quality of special education and rehabilitation of handicapped in general and mentally retarded in particular is

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a vital issue. The Egyptian decision makers have expressed their concern with the advancement of the quality of services presently provided for the mentally retarded as the major process by which the retarded can become socially and economically independent and therefore make a contribution to their society. If this is the case, then it is the conviction of this writer, as it is of many others, that quality of special education and habilitation begins with both the quality of curriculum and the quality of professionals. Therefore, in order for the ongoing programs to increase their effectiveness in meeting the needs of mentally retarded persons, the following recommendations may be considered:

1. Educational programming for mentally retarded persons must be designed, implemented, and evaluated systematically so that the decisions will be made that have an optimal effect on the retardates' development. To do so, the Egyptian decision makers should concern themselves with developing the programs' philosophy and defining the populations targeted for training, what they expect these populations to achieve, and how the training outcomes will be measured.

2. Future planning of habilitation facilities should consider the comprehensiveness of programs. As the study revealed, the focus of the Mataria program seemed to be mostly vocational. Mentally retarded persons need to function successfully in school, home, job, and community settings. To do so, they need skills in many areas, including self-care, mobility and motor skills, communication, social interaction, appropriate and related academics, health and safety, leisure



time, and vocational pursuits. Therefore, the training program must be concerned with targeting useful training objectives in all of these areas, rather than focusing solely on vocational activity.

3. While the ABS proved to be an effective instrument in this particular study, the Egyptian society would greatly benefit in the long term from the development of an Egyptian instrument for evaluating retardates' performance based on Egyptian social expectations. At the same time, the research reported here clearly indicates that there are many items on the ABS that could be included in an Egyptian national instrument.

4. As the study revealed, the retardates' IQs were the sole criteria by which students were admitted to and trained by the Mataria Center, while the graduation criteria are not known. The programming process, therefore, must be based on an assessment of an individual's current skills and needs. It must first determine the student's functioning level and what specific skills need to be learned to help the retardates function more successfully in their environment, and then determine the arrangement of the training-learning environment in the best possible way to facilitate acquisition and maintenance of independent living competencies.

5. Goals and objectives can be planned for each retarded individual by having the parents participate in a planning team. These goals and objectives must be reasonably selected, prioritized, and arranged in order of their importance to his/her independence. Parents should be made to understand the planning process in a way that is



appropriate to their educational levels and by which they understand that the final outcome is their children's progress and independence.

6. Although no significant differences were found between the parents' and professionals' perceptions regarding the training objectives for independent living, there is still some reason to advocate opportunities for free discussion to identify expectations of the level of independence that may be achieved since they may differ between these groups in the future due to economic and other factors.

7. The study revealed that many parents seemed to complain about the "graduates" not having been helped by the Center to gain job skills so as to obtain a suitable job. If this is correct, then the training program should develop entry-level jobs for all career preparation. That is, vocational training of the retardates should be done on actual job sites. This would help them learn how to adjust to the demands of the job and fellow workers and how to build a repertoire of the specific skills requisite for employment in this area of work.

8. The study revealed that a large portion of the "graduates" were not judged by parents to have been helped in job placement. The program should, therefore, provide job-placement and follow-up services for retardates who have completed, or will complete, the training program. Job-placement and follow-up services must be included as one of the goals of the career-preparation program.

9. Parents should be consulted regularly in the pre-vocational preparation of their retarded children. Employers, too, should be



encouraged to assist in the pre-vocational preparation process by offering trial employment to the retarded.

10. The study revealed that an overwhelming majority of the "graduates" did not receive any special education services during elementary school years and before their admission to the Center. Therefore, educational planners must take this into consideration and take serious and proper measures to start special education as early as possible. The earlier the services are provided, the sooner and better the adjustment will take place.

11. Parents should be made aware of special education services available for their children once they are identified as mentally retarded. Mass media programs can contribute very much to realizing this objective.

12. The higher ratio of males to females in the present study may be an indication of lack of accessibility of services or of social attitudes regarding habilitation of females. Therefore, a special effort is needed to change public opinion regarding habilitation of females and to include a homemaking-oriented habilitation program for females through other voluntary agencies in the community.

13. There is a need for establishing special education and rehabilitation departments in the Egyptian universities. The magnitude of the need for services in mental retardation, coupled with the lack of trained staff in the region, makes it imperative to establish such teacher and staff training programs.



14. Not only is there a need to provide additional personnel, but existing staff also require additional or refresher course training to bring their knowledge up to date. Short-term training courses, workshops, seminars, and in-service training should therefore be organized on a regular and continuing basis, covering such subjects as organizational skills (leadership), and basic philosophy of rehabilitating the mentally retarded. With regard to vocational rehabilitation, staff training should be related to specific subjects such as workshop management, counseling, placement, task analysis, and the vocational needs and potential of the retarded.

15. There is a need to standardize some of the available psychological tests in the Egyptian culture and to train psychologists in clinical aspects for vocational and rehabilitation counseling.

Implications for Further Research

1. An attempt should be made to adapt and/or to standardize the new edition of the AAMD-ABS that was issued in 1981 after this study was designed. Such an attempt should take into consideration the areas and items whose importance was agreed on by the parents and professionals in terms of retardates' IL. The adaptation and standardization of the ABS can make a major contribution to the development of effective methods for diagnosing, placing, and educating mentally retarded persons in Egypt.

2. The present study represents a first step in doing evaluative research to help in planning and decision making in the field of the habilitation of mentally retarded in Egypt. It may open



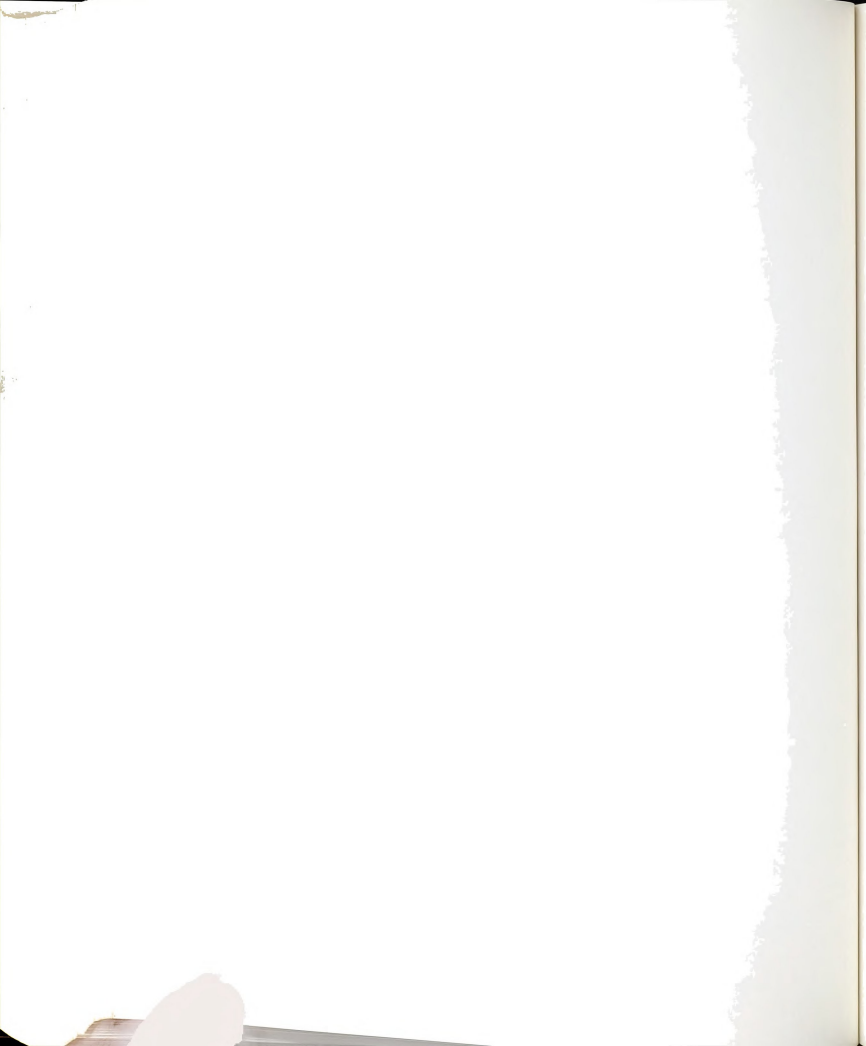
the door for further studies to fulfill some of the recommendations of this study.

3. Further attempts can be made to study the components and organization of the training curriculum of the Mataria Center and the contribution made by each aspect to the realization of the program's goals.

4. Further follow-up research of adult "graduates" should take into consideration the limitations from which the present study has suffered. Sample size should be larger and include enough representatives of each IQ, age, and sex group. This would facilitate the application of multivariate analysis of the contribution of those characteristics as well as other variables to the success or failure of the "graduates" in adjusting to their community and in developing independent living competence. It would also help in verifying the actual status reported by the "graduates'" parents in this study.



APPENDICES



APPENDIX A
THE INSTRUMENT



A descriptive and demographic analysis of educable mentally retarded program graduates of the Mataria Center in Egypt and perceptions of competencies, knowledge, and skills required for independent living.

A need assessment study

Questionnaire

The information collected in this questionnaire will be only used for purposes of research.

Name of Subject _____

Address _____

Date Completed _____



Part I (For all the subjects)

Subject #:

Card #:

1. General Information

Sex	male	1
	female	2
Age of subject at interview	years	

Place of birth:

Rural	_____	1
Urban	_____	2

Present residency:

Rural	_____	1
Urban	_____	2

If residency is different from place of birth, how long has
the subject been living in it? _____ years

2. History of Disablement

The subject was identified as mentally retarded

Since birth	1
After the first year	2
Does not know	3



If identified after first year, at what age? years

Major cause of mental retardation

If known _____ 1

Unknown 2

Are any of the subject's parents, siblings, or relatives

mentally retarded? yes 1

no 2

If yes, who? (circle the number(s) that apply)

Father 1

Mother 2

Brothers 3

Sisters 4

Relatives of the father 5

Relatives of the mother 6

Is there any kinship between parents? yes 1

no 2

The subject was first identified as mentally retarded by

Parents 1

Family doctor 2

School teacher 3

General hospital 4

School clinic 5

School psychologist 6

Other (specify) _____ 7



The subject's I.Q. upon admission to the Center:

54-50	1
59-55	2
64-60	3
70-65	4

What test was used?

Binet	1
Wechsler	2
Both	3
Other	4
Unknown	5

Does the subject suffer from some other disability?

Yes	1
No	2

If yes, specify _____

Socioeconomic Status

3. Family Structure:

Both parents are alive	1
Only father	2
Only mother	3
Both parents are not alive	4

Number of siblings

Brothers	_____
Sisters	_____
Total	_____



Order of the subject among siblings

1 2 3 4 5 6 7 8 9 10

Age of the mother at the birth of the subject

below 20	1
between 20-30	2
between 30-40	3
over 40	4

4. Family Educational Background:

Did father receive any education?

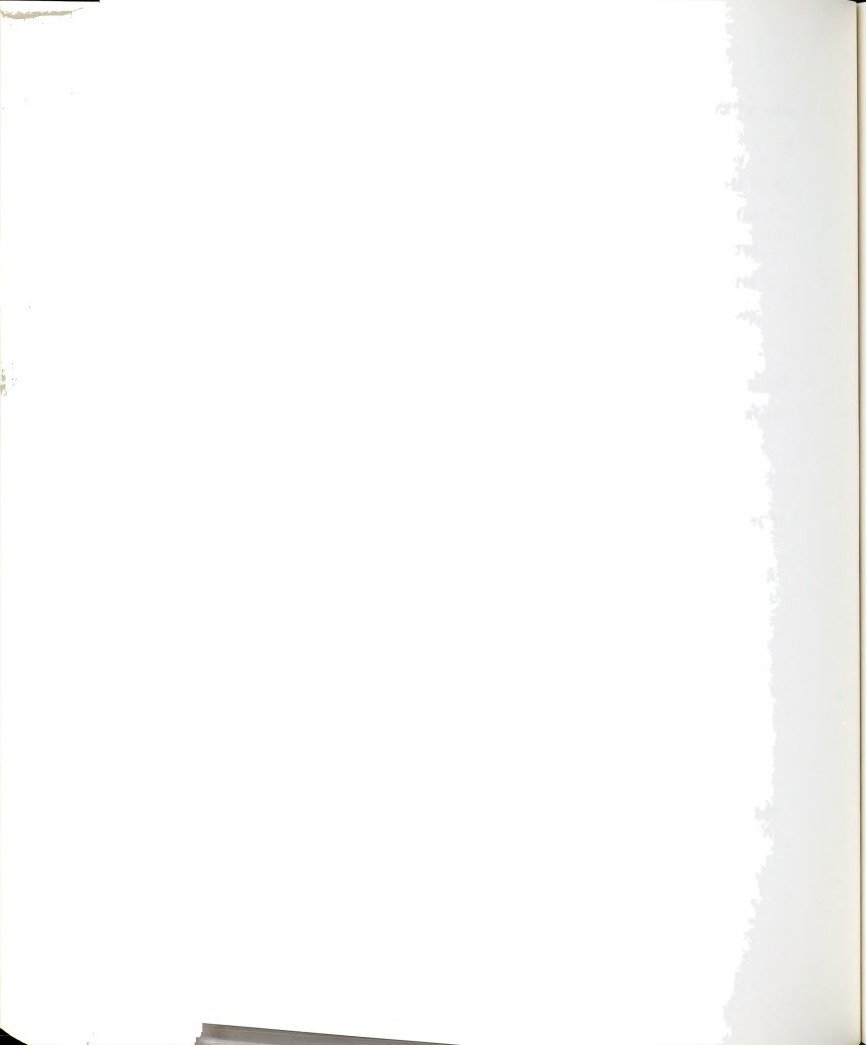
Yes	1
No	2

If yes, what is the highest level?

Elementary	1
Preparatory	2
Some secondary school	3
Completed secondary school	4
Some college education	5
Bachelor (or equivalent)	6
Master	7
Doctorate	8

Did mother receive any education?

Yes	1
No	2



If yes, what is the highest level?

Elementary	1
Preparatory	2
Some secondary school	3
Completed secondary school	4
Some college education	5
Bachelor (or equivalent)	6
Master	7
Doctorate	8

5. Parents' Income Status (Per month)

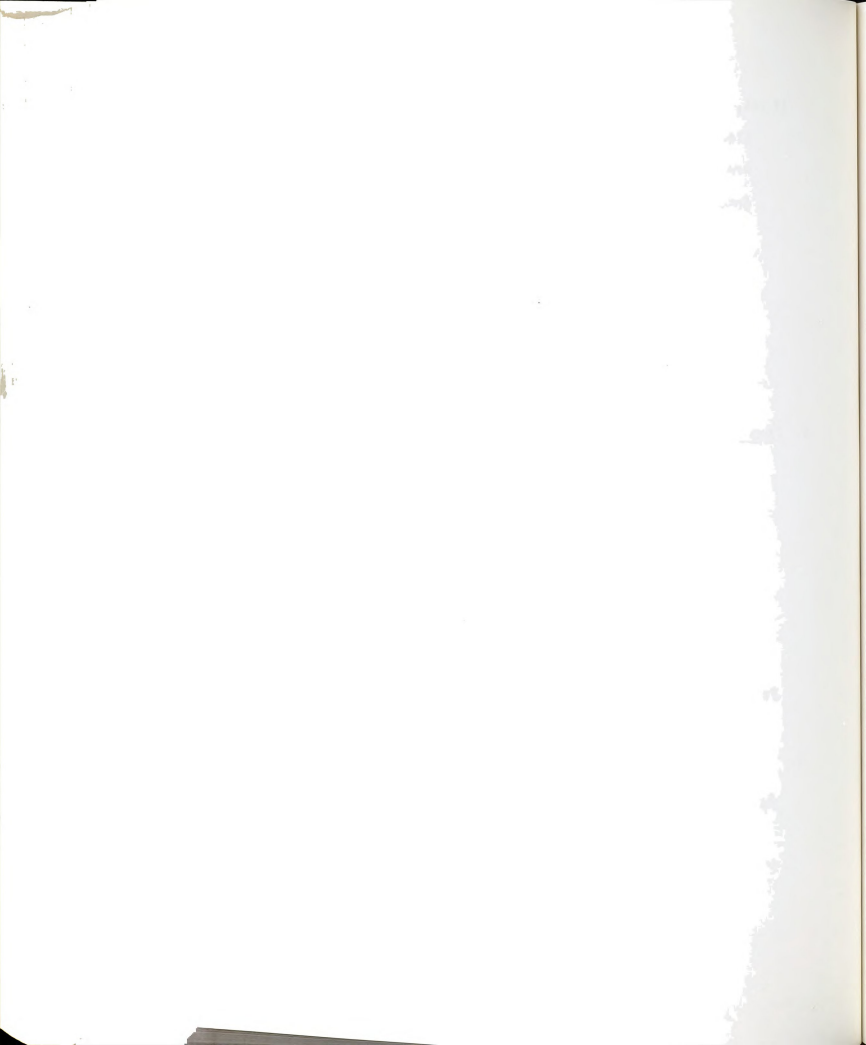
less than \$25	1
\$25-49	2
\$50-74	3
\$75-99	4
\$100-124	5
\$125-199	6
more than \$200.00	7

Parent's occupation _____

6. Educational History of the Subject:

Age of the subject when first admitted to Mataria Center

_____ years



Year in which the subject graduated from the Center:

1976	1
1977	2
1978	3
1979	4
1980	5

Period spent at Mataria Center (in months) _____

Did the subject attend any special education before admission to Mataria Center?

Yes	1
No	2

If yes, how many years did the subject spend in that education? (Circle the appropriate number)

Primary	1	2	3	4	5	6	7	8
Preparatory	9	10	11					
Vocational	12	13	14	15				

What type of special education did he receive before being admitted to the Mataria Center?

Special classes in regular school	1
Special school for the mentally retarded	2
Rehabilitation center for the mentally retarded	3
Other (specify) _____	4



7. Marital Status of the Subject:

Single	1
Married with children	2
Married without children	3
Divorced	4
Widow	5

8. Living Status of the Subject

Lives with his wife and children (if any)	1
Lives by self	2
Lives with friends, unrelated persons, and/or siblings	3
Lives with parents and with spouse and/or children	4
Lives with relatives other than spouse, parents or siblings (i.e., grandparents, uncles, aunts, or children)	5
Lives with parents or with parents and siblings	6
Lives in an institution (e.g. nursing home, chronic care, hospital, rehabilitation facility)	7



Part II

Vocational Status (For all the subjects)

- | | | |
|---|-----|---|
| 1. Does the subject have a job at the present time? | Yes | 1 |
| | No | 2 |
| 2. If yes, what type of work? _____ | | |
| 3. Since when has the subject started it? | | |
| One year | | 1 |
| Two years | | 2 |
| Three years | | 3 |
| Four years | | 4 |
| Five years and until now | | 5 |
| 4. Is work being with | | |
| Government? | | 1 |
| Public sector? | | 2 |
| Private sector? | | 3 |
| Working for the family against payment? | | 4 |
| Self-employed in his home? | | 5 |
| Self-employed outside his home? | | 6 |
| 5. Did he obtain his job through the effort of | | |
| The Center Director? | | 1 |
| The Center Counselor? | | 2 |
| Placement Officer? | | 3 |
| Labor Force Office? | | 4 |
| His parents? | | 5 |



- | | |
|------------------------|---|
| Another relative? | 6 |
| His own effort? | 7 |
| Others (specify) _____ | 8 |
6. Do you think the Mataria Program could
- | | |
|-------------------------------------|---|
| help him acquire his job skills? | 1 |
| help him acquire work habits? | 2 |
| help him to choose a permanent job? | 3 |
| other help (specify) _____ | 4 |
7. Has he been satisfied with his job?
- | | |
|-----|---|
| Yes | 1 |
| No | 2 |
8. If yes, why is s/he satisfied?
- | | |
|--------------------------------------|---|
| job is suitable | 1 |
| job place is near to his home | 2 |
| job is in public sector | 3 |
| job is governmental | 4 |
| job gives him a high payment | 5 |
| has good friends there | 6 |
| co-workers are good | 7 |
| it is the only job available | 8 |
| other reasons (please specify) _____ | 9 |
9. If no, why is s/he dissatisfied?
- | | |
|-----------------------------------|---|
| work is not suitable for him | 1 |
| time of work is not convenient | 2 |
| place of job is far from his home | 3 |
| nongovernmental job | 4 |



payment is low	5
has problems dealing with supervisor	6
has problems dealing with co-workers	7

10. Source of Income (per month)

From work	\$()
Parent support	\$()
Support from others	\$()
Total earning per month if employed	\$()

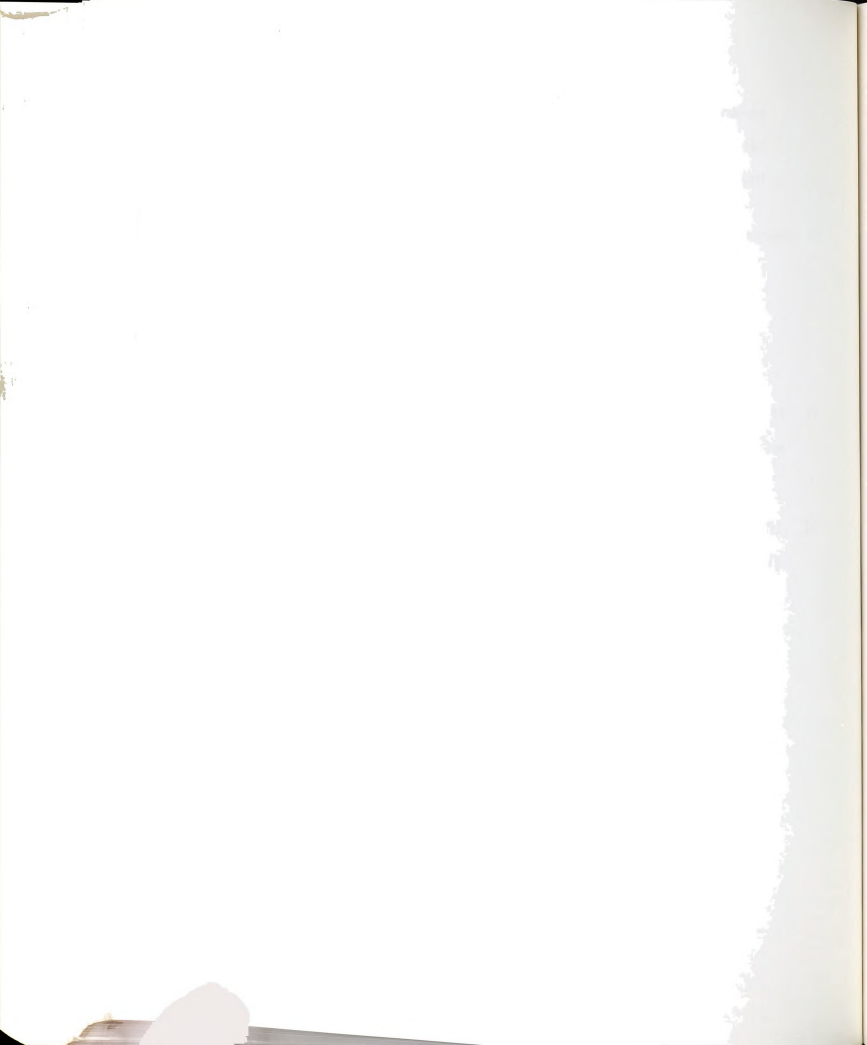
11. If s/he is not employed at the time of interview,

was s/he ever employed?	Yes	1
	No	2

12. If yes, why did s/he quit the previous job? (check

all reasons which apply)

Job type and/or skills were below his competency	1
Work was hard	2
Time of work was inconvenient	3
Place of work was far from home	4
Lack of skills needed for performing the job	5
Job was not permanent	6
Low payment	7
Could not get along with co-workers	8
Could not get along with supervisors	9
Other (explain) _____	10



13. If he was never employed, what do you think the reasons were? (Check all reasons which apply)

Work opportunities are generally rare in the community	1
Jobs offered are not suitable for him/her	2
Type of work s/he can do is not wanted in the community	3
Employers do not generally like to hire disabled persons	4
Employers do not like to hire mentally retarded	5
Other (specify)	6



Additional Information: _____

Instructions for the second part of the Scale immediately precede the second half of this booklet.

There are two kinds of items in the first part of the Scale. The first requires that you select only ONE of the several possible responses. For example:

(2) Eating in Public (Circle only ONE)

Orders complete meals in restaurants	3
Orders simple meals like hamburgers or hot dogs	(2)
Orders soft drinks at soda fountain or canteen	1
Does not order at public eating places	0

2

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The second type of item asks you to check ALL statements which apply to the person. For example:

[4] Table Manners		
(Check ALL statements which apply)		
Swallows food without chewing	<input type="checkbox"/>	8-number checked = <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin-top: 10px;">6</div>
Chews food with mouth open	<input checked="" type="checkbox"/>	
Drops food on table or floor	<input type="checkbox"/>	
Uses napkin incorrectly or not at all	<input checked="" type="checkbox"/>	
Talks with mouth full	<input type="checkbox"/>	
Takes food off others' plates	<input type="checkbox"/>	
Eats too fast or too slow	<input type="checkbox"/>	
Plays in food with fingers	<input type="checkbox"/>	
None of the above	<input type="checkbox"/>	
Does not apply, e.g., because he or she is completely dependent on others. (If checked, enter "0" in the circle to the right.)		<input type="checkbox"/>

In the example above, the second and fourth items are checked to indicate that the person "chews food with mouth open" and "uses napkin incorrectly." In scoring, the number of items checked, 2, is subtracted from 8, and the item score, 6, is entered in the circle to the right. Most items do not, however, require this subtraction; instead, the number checked can be directly entered as the score. The statement "None of the above," which is included for administrative purposes only, is not to be counted in scoring here.

Some items may deal with behaviors that are clearly against local regulations, (e.g., use of the telephone), or behaviors that are not possible for a person to perform because the opportunity does not exist, (e.g., eating in restaurants is not possible for someone who is bedridden). In these instances, you must still complete your rating. Give the person credit for the item if you feel absolutely certain that he or she can and would perform the behavior without additional training had he or she the opportunity to do so. Write "AR" for "Against Regulations" or "HNO" for "Has No Opportunity" next to the rating made in these cases. These notations will not affect the eventual scoring of that item, but will contribute to the understanding and interpretation of the person's adaptive behavior and environment.

Please observe the following general rules in completing the Scale:

1. In items which specify "with help" or "with assistance" for completion of task, these mean with *direct physical assistance*.
2. Give the person credit for an item even if he or she needs verbal prompting or reminding to complete the task unless the item definitely states "*without prompting*" or "*without reminder*."

This Scale is prepared for general use. Therefore, some of the items may not be appropriate for your specific setting, but please do try to complete all of them.



PART ONE

I. INDEPENDENT FUNCTIONING

A. Eating

[1] Use of Table Utensils (Circle only ONE)

Uses knife and fork correctly and neatly	6
Uses table knife for cutting or spreading	5
Feeds self with spoon and fork - neatly	4
Feeds self with spoon and fork - considerable spilling	3
Feeds self with spoon - neatly	2
Feeds self with spoon - considerable spilling	1
Feeds self with fingers or must be fed	0

[2] Eating in Public (Circle only ONE)

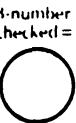
Orders complete meals in restaurants	3
Orders simple meals like hamburgers or hot dogs	2
Orders soft drinks at soda fountain or canteen	1
Does not order at public eating places	0

[3] Drinking (Circle only ONE)

Drinks without spilling, holding glass in one hand	3
Drinks from cup or glass unassisted - neatly	2
Drinks from cup or glass unassisted - considerable spilling	1
Does not drink from cup or glass unassisted	0

[4] Table Manners (Check ALL statements which apply)

Swallows food without chewing	_____	8-number checked =
Chews food with mouth open	_____	
Drops food on table or floor	_____	
Uses napkin incorrectly or not at all	_____	
Talks with mouth full	_____	
Takes food off others' plates	_____	
Eats too fast or too slow	_____	
Plays in food with fingers	_____	
None of the above	_____	
Does not apply, e.g., because he or she is bedfast, and/or has liquid food only. (If checked, enter "0" in the circle to the right.)	_____	



A. Eating ADD 1-4

B. Toilet Use

[5] Toilet Training (Circle only ONE)

Never has toilet accidents	4
Never has toilet accidents during the day	3
Occasionally has toilet accidents during the day	2
Frequently has toilet accidents during the day	1
Is not toilet trained at all	0



[6] Self-Care at Toilet

(Check ALL statements which apply)

Lowens pants at the toilet without help	_____
Sits on toilet seat without help	_____
Uses toilet tissue appropriately	_____
Flushes toilet after use	_____
Puts on clothes without help	_____
Washes hands without help	_____
None of the above	_____



B. Toilet Use ADD 5-6

C. Cleanliness

[7] Washing Hands and Face

(Check ALL statements which apply)

Washes hands with soap	_____
Washes face with soap	_____
Washes hands and face with water	_____
Dries hands and face	_____
None of the above	_____

[8] Bathing (Circle only ONE)

Prepares and completes bathing unaided	6
Washes and dries self completely without prompting or helping	5
Washes and dries self reasonably well with prompting	4
Washes and dries self with help	3
Attempts to soap and wash self	2
Cooperates when being washed and dried by others	1
Makes no attempt to wash or dry self	0



[9] Personal Hygiene

(Check ALL statements which apply)

Has strong underarm odor	_____	4-number checked =
Does not change underwear regularly by self	_____	
Skin is often dirty if not assisted	_____	
Does not keep nails clean by self	_____	
None of the above	_____	
Does not apply, e.g., because he or she is completely dependent on others. (If checked, enter "0" in the circle to the right.)	_____	

[10] Tooth Brushing (Circle only ONE)

Applies toothpaste and brushes teeth with up and down motion	5
Applies toothpaste and brushes teeth	4
Brushes teeth without help, but cannot apply toothpaste	3
Brushes teeth with supervision	2
Cooperates in having teeth brushed	1
Makes no attempt to brush teeth	0






[11] **Menstruation** (Circle only ONE)
(For males, Circle "no menstruation")

- | | |
|---|---|
| No menstruation | 5 |
| Cares for self completely for menstruation without assistance or reminder | 5 |
| Cares for self reasonably well during menstruation | 4 |
| Helps in changing pads during menstruation | 3 |
| Indicates pad needs changing during menstruation | 2 |
| Indicates that menstruation had begun | 1 |
| Will not care for self or seek help during menstruation | 0 |


C. Cleanliness $\xrightarrow{\text{ADD}}$ 7-11 


D. Appearance

[12] **Posture** (Check ALL statements which apply)

- | | |
|---|-------|
| Mouth hangs open | _____ |
| Head hangs down | _____ |
| Stomach sticks out because of posture | _____ |
| Shoulders slumped forward and back bent | _____ |
| Walks with toes out or toes in | _____ |
| Walks with feet far apart | _____ |
| Shuffles, drags, or stamps feet when walking | _____ |
| Walks on tiptoes | _____ |
| None of the above | _____ |
| Does not apply, e.g., because he or she is bedfast or non-ambulatory (If checked, enter "0" in the circle to the right) | _____ |
- 8-number checked = 


[13] **Clothing** (Check ALL statements which apply)

- | | |
|--|-------|
| Clothes do not fit properly if not assisted | _____ |
| Wears torn or unpressed clothing if not prompted | _____ |
| Rewears dirty or soiled clothing if not prompted | _____ |
| Wears clashing color combinations if not prompted | _____ |
| Does not know the difference between work shoes and dress shoes | _____ |
| Does not choose different clothing for formal and informal occasions | _____ |
| Does not wear special clothing for different weather conditions (raincoat, overshoes, etc.) | _____ |
| None of the above | _____ |
| Does not apply, e.g., because he or she is completely dependent on others (If checked, enter "0" in the circle to the right) | _____ |
- 7-number checked = 

D. Appearance $\xrightarrow{\text{ADD}}$ 12-13 


E. Care of Clothing

[14] **Care of Clothing**
(Check ALL statements which apply)


- | | |
|---|-------|
| Wipes and polishes shoes when needed | _____ |
| Puts clothes in drawer or chest neatly | _____ |
| Sends clothes to laundry without being reminded | _____ |
| Hangs up clothes without being reminded | _____ |
| None of the above | _____ |
- E. Care of Clothing $\xrightarrow{\text{ENTER}}$ 14 

F. Dressing and Undressing


[15] **Dressing** (Circle only CNE)


- | | |
|--|---|
| Completely dresses self | 5 |
| Completely dresses self with verbal prompting only | 4 |
| Dresses self by pulling or putting on all clothes with verbal prompting and by fastening (zipping, buttoning, snapping) them with help | 3 |
| Dresses self with help in pulling or putting on most clothes and fastening them | 2 |
| Cooperates when dressed by extending arms or legs | 1 |
| Must be dressed completely | 0 |
- 

[16] **Undressing at Appropriate Times**
(Circle only ONE)

- | | |
|---|---|
| Completely undresses self | 5 |
| Completely undresses self with verbal prompting only | 4 |
| Undresses self by unfastening (unzipping, unbuttoning, unsnapping) clothes with help and pulling or taking them off with verbal prompting | 3 |
| Undresses self with help in unfastening and pulling or taking off most clothes | 2 |
| Cooperates when undressed by extending arms or legs | 1 |
| Must be completely undressed | 0 |
- 


[17] **Shoes** (Check ALL statements which apply)

- | | |
|--|-------|
| Puts on shoes correctly without assistance | _____ |
| Ties shoe laces without assistance | _____ |
| Unties shoe laces without assistance | _____ |
| Removes shoes without assistance | _____ |
| None of the above | _____ |
- 

F. Dressing and Undressing $\xrightarrow{\text{ADD}}$ 15-17 

G. Travel

[18] **Sense of Direction** (Circle only ONE)

- | | |
|--|---|
| Goes a few blocks from hospital or school ground, or several blocks from home without getting lost | 3 |
| Goes around hospital ground or a few blocks from home without getting lost | 2 |
| Goes around cottage, ward, or home alone | 1 |
| Gets lost whenever leaving own living area | 0 |
- 



[19] **Public Transportation**
(Check ALL statements which apply)

- Rides on train, long distance bus or plane independently _____
 Rides in taxi independently _____
 Rides subway or city bus for unfamiliar journeys independently _____
 Rides subway or city bus for familiar journeys independently _____
 None of the above _____

C. Travel

ADD
18-19

H. Other Independent Functioning

[20] **Telephone** (Check ALL statements which apply)

- Uses telephone directory _____
 Uses pay telephone _____
 Makes telephone calls from private telephone _____
 Answers telephone appropriately _____
 Takes telephone messages _____
 None of the above _____

[21] **Miscellaneous Independent Functioning**
(Check ALL statements which apply)

- Prepares own bed at night _____
 Goes to bed unassisted, e.g., getting in bed, covering with blanket, etc. _____
 Has ordinary control of appetite, eats moderately _____
 Knows postage rates, buys stamps from Post Office _____
 Looks after personal health, e.g., changes wet clothing _____
 Deals with simple injuries, e.g., cuts, burns _____
 Knows how and where to obtain a doctor's or dentist's help _____
 Knows about welfare facilities in the community _____
 None of the above _____

H. Other Independent Functioning

ADD
20-21

I. **INDEPENDENT FUNCTIONING** ADD
TRIANGLES A-H

II. **PHYSICAL DEVELOPMENT**

A. **Sensory Development**
(Observable functioning ability)

[22] **Vision** (With glasses, if used)
(Circle only ONE)

- No difficulty in seeing _____
 Some difficulty in seeing _____
 Great difficulty in seeing _____
 No vision at all _____

[23] **Hearing** (With hearing aid, if used)
(Circle only ONE)

- No difficulty in hearing _____
 Some difficulty in hearing _____
 Great difficulty in hearing _____
 No hearing at all _____

A. Sensory Development

ADD
22-23

B. **Motor Development**

[24] **Body Balance** (Circle only ONE)

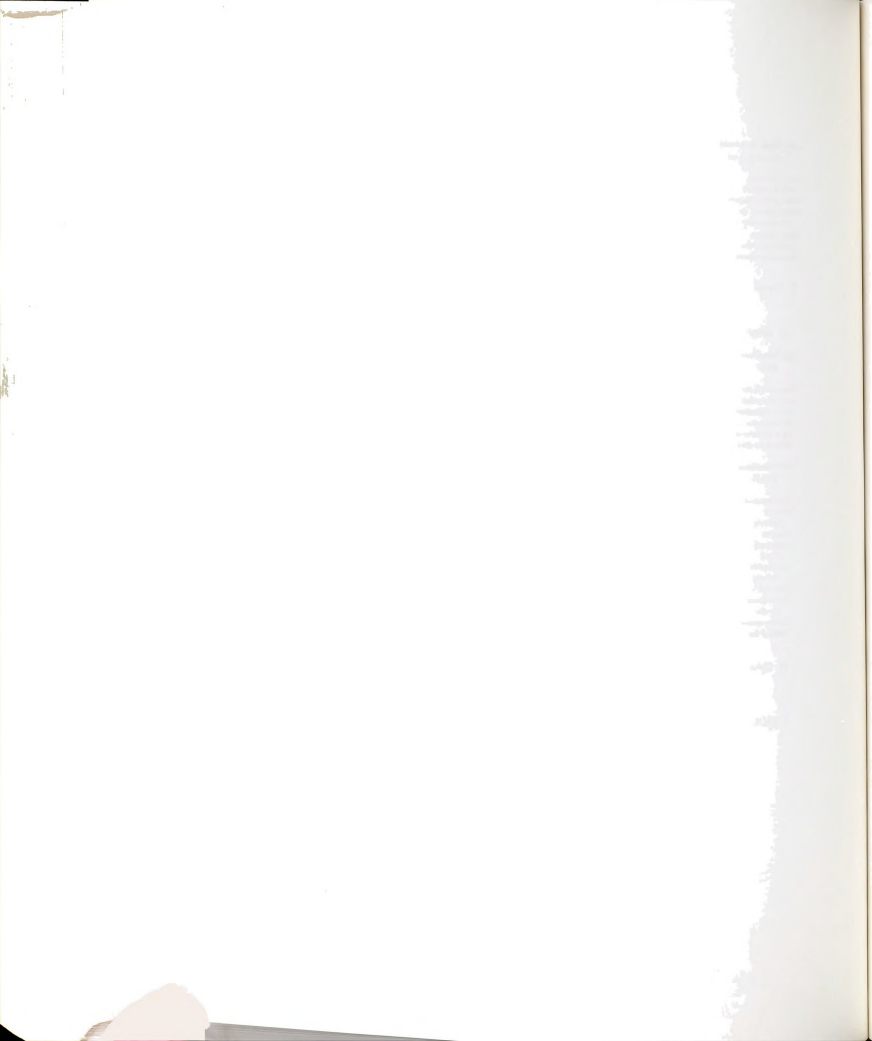
- Stands on "tiptoe" for ten seconds if asked _____
 Stands on one foot for two seconds if asked _____
 Stands without support _____
 Stands with support _____
 Sits without support _____
 Can do none of the above _____

[25] **Walking and Running**
(Check ALL statements which apply)

- Walks alone _____
 Walks up and down stairs alone _____
 Walks down stairs by alternating feet _____
 Runs without falling often _____
 Hops, skips or jumps _____
 None of the above _____

[26] **Control of Hands**
(Check ALL statements which apply)

- Catches a ball _____
 Throws a ball overhand _____
 Lifts cup or glass _____
 Grasps with thumb and finger _____
 None of the above _____



[27] **Limb Function**
(Check ALL statements which apply)

Has effective use of right arm
Has effective use of left arm
Has effective use of right leg
Has effective use of left leg
None of the above

—
—
—
—

○

△

B. Motor Development → ADD 24-27

II. PHYSICAL DEVELOPMENT → ADD TRIANGLES A-B

[31] **Purchasing** (Circle only ONE)

Buys all own clothing
Buys own clothing accessories
Makes minor purchases without help (candy, soft drinks, etc.)
Does shopping with slight supervision
Does shopping with close supervision
Does no shopping

5
4
3
2
1
0

○

△

B. Shopping Skills → ADD 30-31

III. ECONOMIC ACTIVITY → ADD TRIANGLES A-B

III. ECONOMIC ACTIVITY
A. Money Handling and Budgeting

[28] **Money Handling** (Circle only ONE)

Uses banking facilities independently
Makes change correctly but does not use banking facilities
Adds coins of various denominations, up to one dollar
Uses money, but does not make change correctly
Does not use money

4
3
2
1
0

○

[29] **Budgeting**
(Check ALL statements which apply)

Saves money or tokens for a particular purpose
Budgets fares, meals, etc.
Spends money with some planning
Controls own major expenditures
None of the above

—
—
—
—

○

△

A. Money Handling and Budgeting → ADD 28-29

B. Shopping Skills

[30] **Errands** (Circle only ONE)

Goes to several shops and specifies different items
Goes to one shop and specifies one item
Goes on errands for simple purchasing without a note
Goes on errands for simple purchasing with a note
Cannot be sent on errands

4
3
2
1
0

○

IV. LANGUAGE DEVELOPMENT

A. Expression

[32] **Writing** (Circle only ONE)

Writes sensible and understandable letters
Writes short notes and memos
Writes or prints forty words
Writes or prints ten words
Writes or prints own name
Cannot write or print any words

5
4
3
2
1
0

○

[33] **Preverbal Expression**
(Check ALL statements which apply)

Nods head or smiles to express happiness
Indicates hunger
Indicates wants by pointing or vocal noises
Chuckles or laughs when happy
Expresses pleasure or anger by vocal noises
Is able to say at least a few words (Enter "6" if checked, regardless of other items)
None of the above

—
—
—
—
—
—

○

[34] **Articulation** (Check ALL statements which apply—if no speech, check "None" and enter "0" in the circle)

Speech is low, weak, whispered or difficult to hear
Speech is slowed, deliberate, or labored
Speech is hurried, accelerated, or pushed
Speaks with blocking, halting, or other irregular interruptions
None of the above


4-number checked =

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[35] Sentences (Circle only ONE)

- Sometimes uses complex sentences containing "because," "but," etc. 3 
- Asks questions using words such as "why," "how," "what," etc. 2
- Speaks in simple sentences 1
- Speaks in primitive phrases only, or is non-verbal 0

[36] Word Usage (Circle only ONE)

- Talks about action when describing pictures 4 
- Names people or objects when describing pictures 3
- Names familiar objects 2
- Asks for things by their appropriate names 1
- Is non-verbal or nearly non-verbal 0


A. Expression

ADD
32-36







B. Comprehension

[37] Reading (Circle only ONE)

- Reads books suitable for children nine years or older 5
- Reads books suitable for children seven years old 4 
- Reads simple stories or comics 3
- Reads various signs, e.g., "NO PARKING," "ONE WAY," "MEN," "WOMEN," etc. 2
- Recognizes ten or more words by sight 1
- Recognizes fewer than ten words or none at all 0

[38] Complex Instructions

(Check ALL statements which apply)

- Understands instructions containing prepositions, e.g., "on," "in," "behind," "under," etc. 
- Understands instructions referring to the order in which things must be done, e.g., "first do—then do—" 
- Understands instructions requiring a decision "If—, do this, but if not, do—" 
- None of the above 

B. Comprehension





ADD
37-38



C. Social Language Development








[39] Conversation

(Check ALL statements which apply)

- Uses phrases such as "please," and "thank you" 
- Is sociable and talks during meals 
- Talks to others about sports, family, group activities, etc. 
- None of the above 

[40] Miscellaneous Language Development

(Check ALL statements which apply)

- Can be reasoned with 
- Obviously responds when talked to 
- Talks sensibly 
- Reads books, newspapers, magazines for enjoyment 
- Repeats a story with little or no difficulty 
- Fills in the main items on application form reasonably well 
- None of the above 

C. Social Language Development

ADD
39-40




IV. LANGUAGE DEVELOPMENT

ADD
TRIANGLES A-C



V. NUMBERS AND TIME

[41] Numbers (Circle only ONE)

- Does simple addition and subtraction 5
- Counts ten or more objects 4
- Mechanically counts to ten 3 
- Counts two objects by saying "one—two" 2
- Discriminates between "one" and "many" or "a lot" 1
- Has no understanding of numbers 0



[42] Time (Check ALL statements which apply)

- Tells time by clock or watch correctly to the minute
 Understands time intervals, e.g., between "3:30" and "4:30"
 Understands time equivalents, e.g., "9:15" is the same as "quarter past nine"
 Associates time on clock with various actions and events
 None of the above

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[43] Time Concept
 (Check ALL statements which apply)

- Names the days of the week
 Refers correctly to "morning" and "afternoon"
 Understands difference between day-week, minute-hour, month-year, etc.
 None of the above

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V. NUMBERS AND TIME $\xrightarrow{\text{ADD 41-43}}$

VI. DOMESTIC ACTIVITY

A. Cleaning

[44] Room Cleaning (Circle only ONE)

- Cleans room well, e.g., sweeping, dusting and tidying
 Cleans room but not thoroughly
 Does not clean room at all

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[45] Laundry (Check ALL statements which apply)

- Washes clothing
 Dries clothing
 Folds clothing
 Irons clothing when appropriate
 None of the above

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A. Cleaning $\xrightarrow{\text{ADD 44-45}}$

B. Kitchen

[46] Table Setting (Circle only ONE)

- Places all eating utensils, as well as napkins, salt, pepper, sugar, etc., in positions learned
 Places plates, glasses, and utensils in positions learned
 Places silver, plates, cups, etc., on the table
 Does not set table at all

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[47] Food Preparation (Circle only ONE)

- Prepares an adequate complete meal (may use canned or frozen food)
 Mixes and cooks simple food, e.g., fries eggs, makes pancakes, cooks TV dinners, etc.
 Prepares simple foods requiring no mixing or cooking, e.g., sandwiches, cold cereal, etc.
 Does not prepare food at all

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[48] Table Clearing (Circle only ONE)

- Clears table of breakable dishes and glassware
 Clears table of unbreakable dishes and silverware
 Does not clear table at all

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B. Kitchen $\xrightarrow{\text{ADD 46-48}}$

C. Other Domestic Activities

[49] General Domestic Activity
 (Check ALL statements which apply)

- Washes dishes well
 Makes bed neatly
 Helps with household chores when asked
 Does household tasks routinely
 None of the above

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C. Other Domestic Activities $\xrightarrow{\text{ENTER 49}}$

VI. DOMESTIC ACTIVITY $\xrightarrow{\text{ADD TRIANGLES A-C}}$

VII. VOCATIONAL ACTIVITY

[50] Job Complexity (Circle only ONE)


- Performs a job requiring use of tools or machinery, e.g., shop work, sewing, etc.
 Performs simple work, e.g., simple gardening, mopping floors, emptying trash, etc.
 Performs no work at all

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[51] Job Performance

(Check ALL statements which apply)
(If "0" is circled in item 50, check "None of the above" and enter "0" in the circle).

Endangers others because of carelessness _____ 4-number checked =
Does not take care of tools _____ 
Is a very slow worker _____
Does sloppy, inaccurate work _____
None of the above _____


[52] Work Habits

(Check ALL statements which apply)
(If "0" is circled in item 50, check "None of the above" and enter "0" in the circle.)

Is late from work without good reason _____ 5-number checked =
Is often absent from work _____ 
Does not complete jobs without constant encouragement _____
Leaves work station without permission _____
Crumbles or gripes about work _____
None of the above _____


VII. VOCATIONAL ACTIVITY $\xrightarrow[\text{50-52}]{\text{ADD}}$ 


VIII. SELF-DIRECTION**A. Initiative****[53] Initiative (Circle only ONE)**

Initiates most of own activities, e.g., tasks, games, etc. _____ 3 
Asks if there is something to do, or explores surroundings, e.g., home, yard, etc. _____ 2
Will engage in activities only if assigned or directed _____ 1
Will not engage in assigned activities, e.g., putting away toys, etc. _____ 0


[54] Passivity

(Check ALL statements which apply)

Has to be made to do things _____ 6-number checked =
Has no ambition _____ 
Seems to have no interest in things _____
Finishes task last because of wasted time _____
Is unnecessarily dependent on others for help _____
Movement is slow and sluggish _____
None of the above _____
Does not apply, e.g., because he or she is totally dependent on others (If checked, enter "0" in the circle to the right) _____


A. Initiative $\xrightarrow[\text{53-54}]{\text{ADD}}$ 

B. Perseverance**[55] Attention (Circle only ONE)**

Will pay attention to purposeful activities for more than fifteen minutes, e.g., playing games, reading, cleaning up _____ 4
Will pay attention to purposeful activities for at least fifteen minutes _____ 3 
Will pay attention to purposeful activities for at least ten minutes _____ 2
Will pay attention to purposeful activities for at least five minutes _____ 1
Will not pay attention to purposeful activities for as long as five minutes _____ 0

[56] Persistence


(Check ALL statements which apply)


Becomes easily discouraged _____ 4-number checked =
Fails to carry out tasks _____ 
Jumps from one activity to another _____
Needs constant encouragement to complete task _____
None of the above _____
Does not apply, e.g., because he or she is totally incapable of any organized activities (If checked, enter "0" in the circle to the right) _____


B. Perseverance $\xrightarrow[\text{55-56}]{\text{ADD}}$ 

C. Leisure Time**[57] Leisure Time Activity**


(Check ALL statements which apply)

Organizes leisure time on a fairly complex level, e.g., plays billiards, fishes, etc. _____
Has hobby, e.g., painting, embroidery, collecting stamps or coins _____ 
Organizes leisure time adequately on a simple level, e.g., watching television, listening to phonograph, radio, etc. _____
None of the above _____

C. Leisure Time $\xrightarrow[\text{57}]{\text{ENTER}}$ 

VIII. SELF-DIRECTION $\xrightarrow[\text{TRIANGLES A-C}]{\text{ADD}}$ 

IX. RESPONSIBILITY**[58] Personal Belongings (Circle only ONE)**

Very dependable--always takes care of personal belongings _____ 3 
Usually dependable--usually takes care of personal belongings _____ 2
Unreliable--seldom takes care of personal belongings _____ 1
Not responsible at all--does not take care of personal belongings _____ 0



[59] General Responsibility (Circle only ONE)

Very conscientious and assumes much responsibility--makes a special effort; the assigned activities are always performed 3

Usually dependable--makes an effort to carry out responsibility; one can be reasonably certain that the assigned activity will be performed 2

Unreliable--makes little effort to carry out responsibility; one is uncertain that the assigned activity will be performed 1

Not given responsibility; is unable to carry out responsibility at all 0

IX. RESPONSIBILITY

ADD

58-59

X. SOCIALIZATION

[60] Cooperation (Circle only ONE)

Offers assistance to others 2

Is willing to help if asked 1

Never helps others 0

[61] Consideration for Others

(Check ALL statements which apply)

Shows interest in the affairs of others _____

Takes care of others' belongings _____

Directs or manages the affairs of others when needed _____

Shows consideration for others' feelings _____

None of the above _____

[62] Awareness of Others

(Check ALL statements which apply)

Recognizes own family _____

Recognizes people other than family _____

Has information about others, e.g., job, address, relation to self _____

Knows the names of people close to him, e.g., classmates, neighbors _____

Knows the names of people not regularly encountered _____

None of the above _____

[63] Interaction With Others (Circle only ONE)

Interacts with others in group games or activity 3

Interacts with others for at least a short period of time, e.g., showing or offering toys, clothing or objects 2

Interacts with others imitatively with little interaction 1

Does not respond to others in a socially acceptable manner 0

[64] Participation in Group Activities

(Circle only ONE)

Initiates group activities (leader and organizer) 3

Participates in group activities spontaneously and eagerly (active participant) 2

Participates in group activities if encouraged to do so (passive participant) 1

Does not participate in group activities 0

[65] Selfishness

(Check ALL statements which apply)

Refuses to take turns _____

Does not share with others _____

Gets mad if he does not get his way _____

Interrupts aide or teacher who is helping another person _____

None of the above _____

Does not apply, e.g., because he or she has no social interaction or is profoundly withdrawn (If checked, enter "0" in the circle to the right)

[66] Social Maturity

(Check ALL statements which apply)

Is too familiar with strangers _____

Is afraid of strangers _____

Does anything to make friends _____

Likes to hold hands with everyone _____

Is at someone's elbow constantly _____

None of the above _____

Does not apply, e.g., because he or she has no social interaction or is profoundly withdrawn (If checked, enter "0" in the circle to the right)

X. SOCIALIZATION

ADD

60-66



Part IV Form A (For Parents)

The following is a list of skills and activities. In column A, please indicate how important you think each skill or activity is for your son/daughter's independent living. In column B, indicate the degree to which you think the Mataria Program has contributed to the development of your son's/daughter's personal independence in daily living.

A. How important is this skill or activity for your son? B. What effect has this Program had on this skill or activity?

Skill area/activity	No Opinion or No Information	Totally Unimportant	Not Very Important	Average Importance	Very Important	Vital	No Opinion or No Information	No Effect	Little Effect	Moderate Effect	High Effect	Maximum Effect
I. INDEPENDENT FUNCTIONING												
A. Eating												
1. Independence in using table utensils correctly and neatly	0	1	2	3	4	5	0	1	2	3	4	5
2. Ability to order & eat meals at restaurants when necessary	0	1	2	3	4	5	0	1	2	3	4	5
3. Independence in properly drinking beverages	0	1	2	3	4	5	0	1	2	3	4	5
4. Knowing table manners & applying them neatly	0	1	2	3	4	5	0	1	2	3	4	5



	No Opinion or No Information	Totally Unimportant	Not Very Important	Average Importance	Very Important	Vital	No Opinion or No Information	No Effect	Little Effect	Moderate Effect	High Effect	Maximum Effect
B. Toilet Use												
5. Controlling bowel & bladder without having accidents	0	1	2	3	4	5	0	1	2	3	4	5
6. Independence in using toilet & urinal properly when needed & taking care of himself after having done	0	1	2	3	4	5	0	1	2	3	4	5
C. Cleanliness												
7. Independence in washing hands & face with soap & drying them	0	1	2	3	4	5	0	1	2	3	4	5
8. Independence in preparing & completing bathing	0	1	2	3	4	5	0	1	2	3	4	5
9. Independence in grooming self regularly & properly	0	1	2	3	4	5	0	1	2	3	4	5
10. Independence in properly brushing teeth with tooth-paste	0	1	2	3	4	5	0	1	2	3	4	5
11. Ability to properly handle feminine hygiene	0	1	2	3	4	5	0	1	2	3	4	5



	No Opinion or No Information	Totally Unimportant	Not Very Important	Average Importance	Very Important	Vital	No Opinion or No Information	No Effect	Little Effect	Moderate Effect	High Effect	Maximum Effect
<u>D. Appearance</u>												
12. Maintains an acceptable posture	0	1	2	3	4	5	0	1	2	3	4	5
13. Independence in wearing clean & neat clothes properly for different situations & conditions	0	1	2	3	4	5	0	1	2	3	4	5
<u>E. Care of Clothing</u>												
14. Independence in taking care of shoes & clothing & sending clothes to laundry	0	1	2	3	4	5	0	1	2	3	4	5
<u>F. Dressing & Undressing</u>												
15. Independence in dressing self	0	1	2	3	4	5	0	1	2	3	4	5
16. Independence in undressing self at appropriate times	0	1	2	3	4	5	0	1	2	3	4	5
17. Independence in wearing shoes, tying laces, & removing them correctly	0	1	2	3	4	5	0	1	2	3	4	5



	No Opinion or No Information	Totally Unimportant	Not Very Important	Average Importance	Very Important	Vital	No Opinion or No Information	No Effect	Little Effect	Moderate Effect	High Effect	Maximum Effect
<u>G. Travel</u>												
18. Independence in going a few blocks from home or work without getting lost	0	1	2	3	4	5	0	1	2	3	4	5
19. Independence in riding public transportation (auto, cab, train, plane) for familiar & unfamiliar journeys	0	1	2	3	4	5	0	1	2	3	4	5
<u>H. Other Independent Functioning</u>												
20. Ability to use telephone directory, private or pay telephone & to answer them or take messages correctly	0	1	2	3	4	5	0	1	2	3	4	5
21. Ability to prepare own bed independently at night	0	1	2	3	4	5	0	1	2	3	4	5
22. Ability to go to bed & cover self with blanket independently	0	1	2	3	4	5	0	1	2	3	4	5
23. Ability to control appetite ordinarily and to eat moderately	0	1	2	3	4	5	0	1	2	3	4	5



	No Opinion or No Information	Totally Unimportant	Not Very Important	Average Importance	Very Important	Vital	No Opinion or No Information	No Effect	Little Effect	Moderate Effect	High Effect	Maximum Effect
24. Know postage rates and buys stamps from Post Office	0	1	2	3	4	5	0	1	2	3	4	5
25. Ability to look after personal health	0	1	2	3	4	5	0	1	2	3	4	5
26. Ability to treat simple injuries	0	1	2	3	4	5	0	1	2	3	4	5
27. Know whom and how to contact when medical/dental help is required	0	1	2	3	4	5	0	1	2	3	4	5
<u>II. PHYSICAL DEVELOPMENT</u>												
A. <u>Sensory Development</u>												
28. Ability to see well even with glasses	0	1	2	3	4	5	0	1	2	3	4	5
29. Ability to hear well even with hearing aid	0	1	2	3	4	5	0	1	2	3	4	5
B. <u>MOTOR DEVELOPMENT</u>												
30. Ability to keep body balanced upon request (i.e. stand on "tip-toe" for 10 seconds)	0	1	2	3	4	5	0	1	2	3	4	5



	No Opinion or No Information	Totally Unimportant	Not Very Important	Average Importance	Very Important	Vital	No Opinion or No Information	No Effect	Little Effect	Moderate Effect	High Effect	Maximum Effect
31. Ability to independently perform different activities requiring walking, going up & down stairs, running, skipping or jumping	0	1	2	3	4	5	0	1	2	3	4	5
32. Ability to control hands when performing different activities	0	1	2	3	4	5	0	1	2	3	4	5
33. Ability to use both right & left limbs effectively	0	1	2	3	4	5	0	1	2	3	4	5
III. <u>ECONOMIC ACTIVITY</u>												
A. <u>Money Handling and Budgeting</u>												
34. Ability to use banking facilities independently	0	1	2	3	4	5	0	1	2	3	4	5
35. Ability to budget, save, & spend money properly & with planning	0	1	2	3	4	5	0	1	2	3	4	5
B. <u>Shopping Skills</u>												
36. Independence in doing shopping & other errands (food, clothes, etc.)	0	1	2	3	4	5	0	1	2	3	4	5



	No Opinion or No Information	Totally Unimportant	Not Very Important	Average Importance	Very Important	Vital	No Opinion or No Information	No Effect	Little Effect	Moderate Effect	High Effect	Maximum Effect
37. Independence in buying all own clothing	0	1	2	3	4	5	0	1	2	3	4	5
IV. <u>LANGUAGE DEVELOPMENT</u>												
A. <u>Expression</u>												
38. Ability to write sensible & under- standable letters	0	1	2	3	4	5	0	1	2	3	4	5
39. Ability to express his feelings verbally and non-verbally (i.e. nods, laughs, etc.)	0	1	2	3	4	5	0	1	2	3	4	5
40. Ability to arti- culate clearly & properly	0	1	2	3	4	5	0	1	2	3	4	5
41. Ability to use com- plex sentence in speech	0	1	2	3	4	5	0	1	2	3	4	5
42. Ability to talk about action when describing pictures	0	1	2	3	4	5	0	1	2	3	4	5
B. <u>Comprehension</u>												
43. Ability to read books suitable for children nine years or older	0	1	2	3	4	5	0	1	2	3	4	5



	No Opinion or No Information	Totally Unimportant	Not Very Important	Average Importance	Very Important	Vital	No Opinion or No Information	No Effect	Little Effect	Moderate Effect	High Effect	Maximum Effect
44. Ability to understand complex instructions containing prepositions, requiring a decision & done in order	0	1	2	3	4	5	0	1	2	3	4	5
<u>C. Social Language Development</u>												
45. Using "Yes", "No", "Please", "Thank you" appropriately & conversing with others (peers, visitors) about sports, family, group activities, etc.	0	1	2	3	4	5	0	1	2	3	4	5
46. Ability to be reasoned with, talk sensibly & to respond obviously when talked to	0	1	2	3	4	5	0	1	2	3	4	5
47. Ability to read books, papers, magazines for enjoyment	0	1	2	3	4	5	0	1	2	3	4	5
48. Ability to repeat a story with little or no difficulty	0	1	2	3	4	5	0	1	2	3	4	5
49. Ability to fill in main items on application form reasonably well	0	1	2	3	4	5	0	1	2	3	4	5



	No Opinion or No Information	Totally Unimportant	Not Very Important	Average Importance	Very Important	Vital	No Opinion or No Information	No Effect	Little Effect	Moderate Effect	High Effect	Maximum Effect
<u>V. NUMBERS AND TIME</u>												
50. Ability to do simple addition and subtraction	0	1	2	3	4	5	0	1	2	3	4	5
51. Ability to tell time by clock or watch correctly	0	1	2	3	4	5	0	1	2	3	4	5
52. Understanding time intervals	0	1	2	3	4	5	0	1	2	3	4	5
53. Understanding time equivalents	0	1	2	3	4	5	0	1	2	3	4	5
54. Associating time on clock with various actions & events	0	1	2	3	4	5	0	1	2	3	4	5
55. Naming the days of the week, referring correctly to "morning" & "afternoon", & understanding difference between day-week, minute-hour, month-year, etc.	0	1	2	3	4	5	0	1	2	3	4	5
<u>VI. DOMESTIC ACTIVITY</u>												
<u>A. Cleaning</u>												
56. Cleaning room well	0	1	2	3	4	5	0	1	2	3	4	5
57. Washing, drying, folding & ironing clothing	0	1	2	3	4	5	0	1	2	3	4	5



	No Opinion or No Information	Totally Unimportant	Not Very Important	Average Importance	Very Important	Vital	No Opinion or No Information	No Effect	Little Effect	Moderate Effect	High Effect	Maximum Effect
<u>B. Kitchen</u>												
58. Ability to properly set table using required items	0	1	2	3	4	5	0	1	2	3	4	5
59. Ability to prepare an adequate complete meal	0	1	2	3	4	5	0	1	2	3	4	5
60. Ability to clear table of breakable dishes & glassware	0	1	2	3	4	5	0	1	2	3	4	5
<u>C. Other Domestic Activities</u>												
61. Washing dishes well, making bed neatly, helping with household chores upon request, & doing household tasks routinely	0	1	2	3	4	5	0	1	2	3	4	5
<u>VII. VOCATIONAL ACTIVITY</u>												
62. Ability to perform a job requiring use of tools or machinery, e.g. shopwork, sewing etc.	0	1	2	3	4	5	0	1	2	3	4	5
63. Performing job safely, punctually, and satisfactorily	0	1	2	3	4	5	0	1	2	3	4	5



	No Opinion or No Information	Totally Unimportant	Not Very Important	Average Importance	Very Important	Vital	No Opinion or No Information	No Effect	Little Effect	Moderate Effect	High Effect	Maximum Effect
64. Coming on time for work & is seldom absent, leaving it without permission or encouraged to complete jobs	0	1	2	3	4	5	0	1	2	3	4	5
VIII. SELF-DIRECTION												
A. Initiation												
65. Initiating most of own activities or tasks	0	1	2	3	4	5	0	1	2	3	4	5
66. Having ambition & interest in doing things punctually & independently	0	1	2	3	4	5	0	1	2	3	4	5
B. Perseverance												
67. Paying attention to purposeful activities for more than 15 minutes (cleaning up, & putting things away, etc.)	0	1	2	3	4	5	0	1	2	3	4	5
68. Persistence in doing tasks without being encouraged	0	1	2	3	4	5	0	1	2	3	4	5
C. Leisure Time												
69. Organizing leisure time adequately on a complex or a simple level, e.g. watching television, listening to radio, doing a hobby etc.	0	1	2	3	4	5	0	1	2	3	4	5



	No Opinion or No Information	Totally Unimportant	Not Very Important	Average Importance	Very Important	Vital	No Opinion or No Information	No Effect	Little Effect	Moderate Effect	High Effect	Maximum Effect
77. Cooperation with others by taking turns & sharing	0	1	2	3	4	5	0	1	2	3	4	5
78. Not familiar with or afraid of strangers & does not like to have friendship with others whom he does not know	0	1	2	3	4	5	0	1	2	3	4	5



COVER LETTER
for
Professionals Questionnaire

August 15, 1984

Dear Mataria Staff Members:

As you surely know, training educable mentally retarded is a process by which their independent living skills and competencies could be improved. However, training educable retarded for living independently can be best accomplished if it is geared to their needs as perceived by professionals who are directly involved with their training. Because of their daily contact with those individuals, professionals are in a good position to identify their needs and competencies necessary for independent living. Hence, the attached questionnaire is designed for a study which intends to identify independent living competencies and skills by requesting the professionals' perception regarding whether or not selected varieties of skills and competencies are important for making the educable retarded able to live independently. The study for which this questionnaire is designed, also intends to help the rehabilitation authorities establish a framework for a better understanding of the educables' needs and, subsequently, for planning and/or improving rehabilitation programs in Egypt.

The questionnaire consists of two parts: first part includes questions designed to solicit some personal and demographic data about you and your professional experiences. The second part includes 78 statements which represent varieties of competencies and skills considered important for educable retarded persons to successfully live independent in society.

Please answer all questions in both parts as truly and accurately as you can. There is no need for you to write your name on the questionnaire. The information you give is intended to be used exclusively for the purpose of this research specified above. Your participation and cooperation are greatly appreciated.

Truly yours,

Abdul Ghaffar A. Eldamatty
Ph.D. Candidate at
Michigan State University, U.S.A.

Part IV (Form B: For Professionals)

A. Please check the following items:

1. Sex

Male	1
Female	2
2. Age

Year	
------	--
3. Type of position at Mataria Center (Circle number(s) next to your position(s))

Teacher	1
Social worker	2
Speech therapist	3
Physiotherapist	4
Psychologist	5
Rehabilitation counselor	6
Physician	7
Psychotherapist	8
Director of the Center	9
4. Years of experience working with mentally retarded
5. Educational level _____
6. Do you work exclusively or predominantly with:

Educable mentally retarded	1
Trainable mentally retarded	2
Severely mentally retarded	3



- B. The following is a list of skills and activities. Please circle the number that indicates how important you think each skill or activity is for the independent living of the educable mentally retarded persons trained in the Materia Center Program.

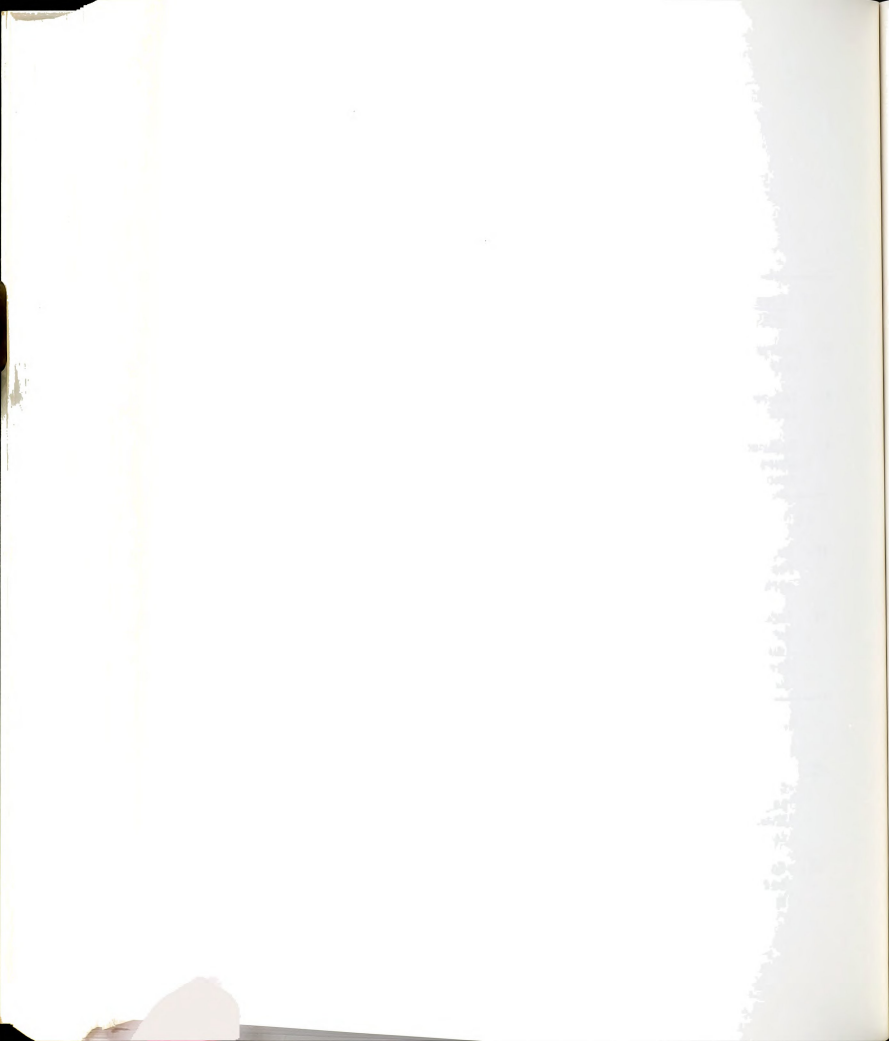
Skill or activity statement	<u>Importance of skill or activity</u>					
	No opinion or No information	Totally unimportant	Not very important	Average importance	Very important	Vital
<u>I. INDEPENDENT FUNCTIONING</u>						
<u>A. Eating</u>						
1. Independence in using table utensils correctly and neatly	0	1	2	3	4	5
2. Ability to order & eat meals at restaurants when necessary	0	1	2	3	4	5
3. Independence in properly drinking beverages	0	1	2	3	4	5
4. Knowing table manners & applying them neatly	0	1	2	3	4	5
<u>B. Toilet Use</u>						
5. Controlling bowel & bladder without having accidents	0	1	2	3	4	5
6. Independence in using toilet & urinal properly when needed & taking care of himself after having done	0	1	2	3	4	5



	No opinion or No information	Totally unimportant	Not very important	Average importance	Very important	Vital
<u>C. Cleanliness</u>						
7. Independence in washing hands & face with soap & drying them	0	1	2	3	4	5
8. Independence in preparing & completing bathing	0	1	2	3	4	5
9. Independence in grooming self regularly & properly	0	1	2	3	4	5
10. Independence in properly brushing teeth with toothpaste	0	1	2	3	4	5
11. Ability to properly handle feminine hygiene	0	1	2	3	4	5
<u>D. Appearance</u>						
12. Maintains an acceptable posture	0	1	2	3	4	5
13. Independence in wearing clean & neat clothes properly for different situations & conditions	0	1	2	3	4	5
<u>E. Care of Clothing</u>						
14. Independence in taking care of shoes & clothing & sending clothes to laundry	0	1	2	3	4	5



	No opinion or No information	Totally unimportant	Not very important	Average importance	Very important	Vital
<u>F. Dressing & Undressing</u>						
15. Independence in dressing self	0	1	2	3	4	5
16. Independence in undressing self at appropriate times	0	1	2	3	4	5
17. Independence in wearing shoes, tying laces, & removing them correctly	0	1	2	3	4	5
<u>G. Travel</u>						
18. Independence in going a few blocks from home or work without getting lost	0	1	2	3	4	5
19. Independence in riding public transportation (auto, cab, train, plane) for familiar & unfamiliar journeys	0	1	2	3	4	5
<u>H. Other Independent Functioning</u>						
20. Ability to use telephone directory, private or pay telephone & to answer them or take messages correctly	0	1	2	3	4	5
21. Ability to prepare own bed independently at night	0	1	2	3	4	5



	No opinion or No information	Totally unimportant	Not very important	Average importance	Very important	Vital
22. Ability to go to bed & cover self with blanket independently	0	1	2	3	4	5
23. Ability to control appetite ordinarily & to eat moderately	0	1	2	3	4	5
24. Know postage rates & buys stamps from Post Office	0	1	2	3	4	5
25. Ability to look after personal health	0	1	2	3	4	5
26. Ability to treat simple injuries	0	1	2	3	4	5
27. Know whom and how to contact when medical/dental help is required	0	1	2	3	4	5
<hr/>						
II. <u>PHYSICAL DEVELOPMENT</u>						
A. <u>Sensory Development</u>						
28. Ability to see well even with glasses	0	1	2	3	4	5
29. Ability to hear well even with hearing aid	0	1	2	3	4	5
<hr/>						
B. <u>Motor Development</u>						
30. Ability to keep body balanced upon request (i.e. stand on "tiptoe" for 10 seconds)	0	1	2	3	4	5

31.

32.

33.

III

34.

35.

36.

37

	No opinion or No information	Totally unimportant	Not very important	Average importance	Very important	Vital
31. Ability to independently perform different activities requiring walking, going up & down stairs, running, skipping or jumping	0	1	2	3	4	5
32. Ability to control hands when performing different activities	0	1	2	3	4	5
33. Ability to use both right & left limbs effectively	0	1	2	3	4	5
<hr/>						
III. <u>ECONOMIC ACTIVITY</u>						
A. <u>Money Handling and Budgeting</u>						
34. Ability to use banking facilities independently	0	1	2	3	4	5
35. Ability to budget, save, & spend money properly & with planning	0	1	2	3	4	5
<hr/>						
B. <u>Shopping Skills</u>						
36. Independence in doing shopping & other errands (food, clothes, etc.)	0	1	2	3	4	5
37. Independence in buying all own clothing	0	1	2	3	4	5

	No opinion or No information	Totally unimportant	Not very important	Average importance	Very important	Vital
<u>IV. LANGUAGE DEVELOPMENT</u>						
<u>A. Expression</u>						
38. Ability to write sensible & understandable letters	0	1	2	3	4	5
39. Ability to express his feelings verbally and non-verbally (i.e. nods, laughs, etc.)	0	1	2	3	4	5
40. Ability to articulate clearly & properly	0	1	2	3	4	5
41. Ability to use complex sentence in speech	0	1	2	3	4	5
42. Ability to talk about action when describing pictures	0	1	2	3	4	5
<u>B. Comprehension</u>						
43. Ability to read books suitable for children nine years or older	0	1	2	3	4	5
44. Ability to understand complex instructions containing prepositions, requiring a decision & done in order	0	1	2	3	4	5



	No opinion or No information	Totally unimportant	Not very important	Average importance	Very important	Vital
<u>C. Social Language Development</u>						
45. Using "Yes", "No", "Please", "Thank you" appropriately & conversing with others (peers, visitors) about sports, family, group activities, etc.	0	1	2	3	4	5
46. Ability to be reasoned with, talk sensibly & to respond obviously when talked to	0	1	2	3	4	5
47. Ability to read books, papers, magazines for enjoyment	0	1	2	3	4	5
48. Ability to repeat a story with little or no difficulty	0	1	2	3	4	5
49. Ability to fill in main items on application form reasonably well	0	1	2	3	4	5
<u>V. NUMBERS AND TIME</u>						
50. Ability to do simple addition and subtraction	0	1	2	3	4	5
51. Ability to tell time by clock or watch correctly	0	1	2	3	4	5



	No opinion or No information	Totally unimportant	Not very important	Average importance	Very important	Vital
52. Understanding time intervals	0	1	2	3	4	5
53. Understanding time equivalents	0	1	2	3	4	5
54. Associating time on clock with various actions & events	0	1	2	3	4	5
55. Naming the days of the week, referring correctly to "morning" & "afternoon", & understanding difference between day-week, minute-hour, month-year, etc.	0	1	2	3	4	5
<hr/>						
VI. <u>DOMESTIC ACTIVITY</u>						
A. <u>Cleaning</u>						
56. Cleaning room well	0	1	2	3	4	5
57. Washing, drying, folding & ironing clothing	0	1	2	3	4	5
<hr/>						
B. <u>Kitchen</u>						
58. Ability to properly set table using required items	0	1	2	3	4	5
59. Ability to prepare an adequate complete meal	0	1	2	3	4	5
60. Ability to clear table of breakable dishes & glassware	0	1	2	3	4	5



	No opinion or No information	Totally unimportant	Not very important	Average importance	Very important	Vital
<u>C. Other Domestic Activities</u>						
61. Washing dishes well, making bed neatly, helping with household chores upon request, & doing household tasks routinely	0	1	2	3	4	5
<u>VII. VOCATIONAL ACTIVITY</u>						
62. Ability to perform a job requiring use of tools or machinery, e.g. shopwork, sewing, etc.	0	1	2	3	4	5
63. Performing job safely, punctually, and satisfactorily	0	1	2	3	4	5
64. Coming on time for work & is seldom absent, leaving it without permission or encouraged to complete jobs	0	1	2	3	4	5
<u>VIII. SELF-DIRECTION</u>						
<u>A. Initiation</u>						
65. Initiating most of own activities or tasks	0	1	2	3	4	5



	No opinion or No information	Totally unimportant	Not very important	Average importance	Very important	Vital
66. Having ambition & interest in doing things punctually & independently	0	1	2	3	4	5
<u>B. Perseverance</u>						
67. Paying attention to purposeful activities for more than 15 minutes (cleaning up, & putting things away, etc.)	0	1	2	3	4	5
68. Persistence in doing tasks without being encouraged	0	1	2	3	4	5
<u>C. Leisure Time</u>						
69. Organizing leisure time adequately on a complex or a simple level, e.g. watching television, listening to radio, doing a hobby, etc.	0	1	2	3	4	5
<u>IX. RESPONSIBILITY</u>						
70. Very dependable; always takes care of personal belongings	0	1	2	3	4	5
71. Very conscientious & assumes much responsibility; makes a special effort; & always performs the assigned activities	0	1	2	3	4	5



	No opinion or No information	Totally unimportant	Not very important	Average importance	Very important	Vital
<u>X. SOCIALIZATION</u>						
72. Offering assistance to others	0	1	2	3	4	5
73. Showing consideration for others' affairs, belongings, & feelings	0	1	2	3	4	5
74. Awareness of own family & others by knowing their names, jobs, relation to self, etc.	0	1	2	3	4	5
75. Interaction with others in group games or social activities	0	1	2	3	4	5
76. Active participation in social collective activities (church, mosque, sports, etc.)	0	1	2	3	4	5
77. Cooperation with others by taking turns & sharing	0	1	2	3	4	5
78. Not familiar with or afraid of strangers & does not like to have friendship with others whom he does not know	0	1	2	3	4	5



APPENDIX B

THE STUDY SAMPLE BY GROUP, SEX, AGE, IQ, AND
TEST USED, AS RANDOMLY DIVIDED



Table B-1.--The study sample by group, sex, age^a, IQ^b, and test used, as randomly divided.

Group I					Group II				
No.	Sex	Age	IQ	Test Used	No.	Sex	Age	IQ	Test Used
1	M	27	52	SB ^c	1	F	23	65	SB
2	F	26	55	SB	2	M	26	55	SB
3	M	15	70	WISC ^d	3	F	24	58	SB
4	M	18	70	WISC	4	M	20	52	SB
5	M	19	59	SB	5	M	18	50	WISC
6	M	32	69	SB	6	M	17	68	WISC
7	M	22	53	SB	7	M	23	70	SB
8	M	22	66	SB	8	F	24	67	SB
9	M	24	52	SB	9	F	23	55	SB
10	M	28	53	SB	10	F	25	61	SB
11	M	25	64	SB	11	M	23	65	SB
12	M	29	60	SB	12	M	23	63	SB
13	M	23	56	SB	13	M	30	66	SB
14	M	32	68	SB	14	M	15	56	WISC
15	M	24	64	SB	15	F	20	70	WISC
16	M	27	67	SB	16	M	21	69	SB
17	M	21	61	SB	17	M	26	57	SB
18	M	25	52	SB	18	F	23	62	SB
19	M	29	65	SB	19	M	27	55	SB
20	M	20	59	SB	20	F	21	63	SB
21	M	24	56	SB	21	M	19	51	SB
22	F	19	70	WISC	22	M	23	53	SB
23	M	19	67	SB	23	M	23	53	SB
24	M	26	57	SB	24	M	26	54	SB
25	M	27	54	SB	25	F	25	70	SB

^aAge listed here was taken at the time of interview.

^bMean IQ = 60.5.

^cSB = Stanford-Binet.

^dWISC = Wechsler Intelligence Scale for Children.



APPENDIX C

RAW DATA OF THE SAMPLE



Table C-1.--Summary answer sheet of the ABS domain scores obtained by the subjects of Group One.

Domain No.			1	2	3	4	5	6	7	8	9	10
Subj. No.	Age	Sex	Independ. Funct. MS = 107 ^a	Physical Develop. MS = 24	Economic Activity MS = 17	Language Develop. MS = 38	Numbers & Time MS = 12	Domestic Activity MS = 18	Vocational Activity MS = 11	Self-Direction MS = 20	Responsibility MS = 6	Socialization MS = 26
1	27	M	92	23	12	18	12	3	11	16	5	18
2	26	F	86	23	10	21	12	16	11	19	5	17
3	15	M	99	24	15	25	12	12	11	19	6	23
4	18	M	82	18	8	21	9	6	6	5	0	9
5	19	M	82	24	4	28	9	7	8	8	1	14
6	32	M	84	23	3	20	11	1	7	11	3	10
7	22	M	97	24	12	23	11	17	11	18	5	23
8	22	M	100	24	10	26	8	18	11	13	4	12
9	24	M	94	19	3	17	6	14	6	6	2	13
10	28	M	107	24	16	38	9	17	5	8	4	11
11	25	M	96	24	12	26	9	17	6	10	4	18
12	29	M	107	24	16	38	12	18	11	18	6	21
13	23	M	92	23	10	29	12	9	11	15	6	20
14	32	M	68	17	4	20	9	0	10	12	4	12
15	24	M	98	24	16	26	12	12	7	17	5	20
16	27	M	107	24	15	24	12	7	10	18	6	24
17	21	M	67	24	5	14	6	0	0	3	0	10
18	25	M	85	22	13	25	12	4	10	10	2	21
19	29	M	28	13	3	11	0	0	7	2	0	5
20	20	M	87	22	14	23	10	7	10	18	5	18
21	24	M	93	24	10	26	10	7	10	15	5	17
22	19	F	100	24	11	29	10	18	11	11	4	19
23	19	M	79	21	12	23	7	7	6	12	1	17
24	26	M	85	22	12	20	7	1	11	16	6	14
25	27	M	91	23	12	26	7	5	11	17	5	20
Raw Mean			88.24	22.28	10.32	23.48	9.36	8.92	8.72	12.68	3.76	16.24
Raw SD			16.42	2.76	4.35	5.46	2.83	6.47	2.81	5.16	2.05	4.90
Percent Mean			82.47	92.83	60.71	61.79	78.00	49.56	79.27	63.40	62.67	62.46
Percent SD			15.35	11.51	25.57	14.37	23.56	35.93	25.51	25.80	34.12	19.21

^aMS = maximum score.



Subdomain No.		1	2	3	4	5	6	7	8	9	10	11	12
Subj. No.	Age Sex	Eating MS=20 ^b	Toilet Use MS=10	Clean- liness MS=24	Appear- ance MS=15	Care of Clothing MS=4	Dress & Undress MS=14	Travel MS=7	Other Indep. Funct. MS=13	Sensory Devel. MS=6	Motor Devel. MS=18	Money Hand. & Budget MS=8	Shop. Skills MS=9
1	27 M	16	10	23	14	4	14	5	6	5	18	4	8
2	26 F	16	10	23	13	0	14	5	5	5	18	3	7
3	15 M	17	10	24	14	4	14	7	9	6	18	7	8
4	18 M	11	9	22	13	1	13	6	7	5	13	1	7
5	19 M	15	10	22	13	1	14	4	3	6	18	1	3
6	32 M	18	10	15	14	4	13	2	8	5	18	3	0
7	22 M	19	10	24	15	2	14	7	6	6	18	3	9
8	22 M	18	10	24	15	4	14	7	8	6	18	3	7
9	24 M	19	10	24	13	4	14	4	6	6	13	1	2
10	28 M	20	10	24	15	4	14	7	13	6	18	7	9
11	25 M	16	10	23	15	4	14	7	7	6	18	3	9
12	29 M	20	10	24	15	4	14	7	13	6	18	7	9
13	23 M	16	10	23	12	1	14	6	10	6	17	4	6
14	32 M	9	10	15	8	2	13	7	4	5	12	4	0
15	24 M	20	10	24	15	2	14	7	6	6	18	7	9
16	27 M	20	10	24	15	4	14	7	12	6	18	6	9
17	21 M	14	10	15	5	0	14	7	2	6	18	1	4
18	25 M	16	10	19	15	1	11	4	9	5	17	4	9
19	29 M	6	6	5	7	0	1	2	1	6	7	1	2
20	20 M	15	10	19	15	1	14	6	7	4	18	5	9
21	24 M	15	10	23	15	3	14	6	7	6	18	2	8
22	19 F	19	9	23	14	4	13	7	11	6	18	3	8
23	19 M	16	10	16	10	1	14	7	5	3	18	4	8
24	26 M	16	10	18	15	1	14	5	6	4	18	4	8
25	27 M	15	10	19	15	4	14	7	7	5	18	5	7
Raw Mean		16.00	9.76	20.68	13.20	2.40	13.20	5.84	7.12	5.44	16.84	3.72	6.60
Raw SD		3.43	0.83	4.63	2.78	1.58	2.63	1.57	3.10	0.82	2.70	2.00	2.94
Percent Mean		80.40	97.60	86.17	88.27	60.00	94.29	83.43	54.77	90.67	93.56	46.50	73.30
Percent SD		17.13	8.31	19.27	18.59	39.53	18.79	22.47	23.85	13.68	15.00	24.87	32.70



Table C-2. (Continued).

Subdomain No.		13	14	15	16 ^a	17	18	19	20 ^a	21	22	23	24 ^a	25 ^a
Subj. No.	Age Sex	Expression MS=22 ^b	Comprehension MS=8	Soc. Lang. Devel. MS=8	Numbers & Time MS=12	Cleaning MS=6	Kitchen Duties MS=8	Other Domes. Activ. MS=4	Vocat. Activ. MS=11	Initiative MS=9	Perseverance MS=8	Leisure Time MS=3	Responsibility MS=6	Socialization MS=26
1	27 M	14	2	2	12	0	3	0	11	8	7	1	5	18
2	26 F	16	2	3	12	6	6	4	11	9	8	2	5	17
3	15 M	18	3	4	12	4	6	2	11	9	8	2	6	23
4	18 M	18	3	0	9	1	5	0	6	3	1	1	0	9
5	19 M	19	7	2	9	3	3	1	8	5	2	1	1	14
6	32 M	15	4	1	11	1	0	0	7	5	5	1	3	10
7	22 M	16	3	4	11	5	8	4	11	9	8	1	5	23
8	22 M	18	4	4	8	6	8	4	11	7	6	0	4	12
9	24 M	13	2	2	6	6	4	4	6	4	2	0	2	13
10	28 M	22	8	8	9	5	8	4	5	2	5	1	4	11
11	25 M	18	4	4	9	5	8	4	6	4	5	1	4	18
12	29 M	22	8	8	12	6	8	4	11	9	8	1	6	21
13	23 M	17	7	5	12	1	5	3	11	6	7	2	6	20
14	32 M	18	1	1	9	0	0	0	10	6	5	1	4	12
15	24 M	18	4	4	12	2	6	4	7	9	7	1	5	20
16	27 M	17	3	4	12	1	4	2	10	8	8	2	6	24
17	21 M	13	1	0	6	0	0	0	0	1	1	1	0	10
18	25 M	19	3	3	12	2	1	1	10	1	7	2	2	21
19	29 M	11	0	0	0	0	0	0	7	1	0	1	0	5
20	20 M	18	3	2	10	2	3	2	10	9	8	1	5	18
21	24 M	17	3	6	10	6	1	0	10	7	7	1	5	17
22	19 F	19	5	5	10	6	8	4	11	5	5	1	4	19
23	19 M	18	1	4	7	2	3	2	6	6	5	1	1	17
24	26 M	17	2	1	7	0	0	1	11	7	8	1	6	14
25	27 M	18	3	5	7	1	3	1	11	8	8	1	5	20
Raw Mean		17.16	3.44	3.28	9.36	2.84	4.04	2.04	8.72	5.92	5.64	1.12	3.76	16.24
Raw SD		2.53	2.14	2.23	2.83	2.37	2.98	1.70	2.81	2.74	2.56	0.53	2.05	4.90
Percent Mean		78.00	43.00	41.00	78.00	47.33	50.50	51.00	79.27	65.78	70.50	37.33	62.67	62.46
Percent SD		11.50	26.78	27.84	23.56	39.58	37.24	42.38	25.51	30.42	32.00	17.54	34.12	19.21

^aMajor domains included in this summary as subdomains.

^bMS = maximum score.



Table C-3.--Frequency distribution of the individual scores obtained by the 25 subjects on the ABS domains.

Independ. Funct. MS = 107 ^a	Physical Develop. MS = 24		Economic Activity MS = 17		Language Develop. MS = 38		Numbers & Time MS = 12		Domestic Activity MS = 18		Vocational Activity MS = 11		Self- Direction MS = 20		Responsi- bility MS = 6		Sociali- zation MS = 26			
OS ^b	N	%	OS	N	%	OS	N	%	OS	N	%	OS	N	%	OS	N	%	OS	N	%
107	3	12	13	1	4	11	1	4	0	3	12	0	1	4	2	1	4	5	1	4
100	2	8	17	1	4	14	1	4	6	2	8	5	1	4	3	1	4	9	1	4
99	1	4	18	1	4	17	1	4	7	3	12	6	4	16	5	1	4	10	2	8
98	1	4	19	1	4	18	1	4	8	1	4	7	3	12	6	1	4	11	1	4
97	1	4	21	1	4	20	3	12	9	5	20	8	1	4	8	2	8	12	2	8
96	1	4	22	3	12	21	2	8	10	3	12	6	1	4	10	2	8	13	1	4
94	1	4	23	5	20	23	3	12	11	2	8	10	5	20	11	2	8	14	2	8
93	1	4	24	12	48	24	1	4	12	8	32	11	10	40	12	2	8	17	3	12
92	2	8				25	2	8	9	1	4	12	2	8	13	1	4	18	3	12
91	1	4				26	5	20	14	1	4	12	2	8	15	2	8	19	1	4
87	1	4				28	1	4	16	1	4	16	2	8	16	2	8	20	3	12
86	1	4				29	2	8	17	3	12	17	2	8	17	2	8	21	2	8
85	2	8				38	2	8	18	3	12	18	4	16	18	4	16	23	2	8
84	1	4													19	2	8	24	1	4
82	2	8																		
79	1	4																		
68	1	4																		
67	1	4																		
28	1	4																		
TOTAL	25	100	25	100		25	100		25	100		25	100		25	100		25	100	

^aMS = maximum score.

^bOS = obtained score.





Table C-4.--Continued.

Number	13	14	15	16	17	18	19	20	21	22	23	24	25
Sub-domain	Expression	Comprehension	Soc. Lang. Devel.	Numbers & Time	Cleaning	Kitchen Duties	Other Domes. Activ.	Vocat. Activ.	Initiative	Perseverance	Leisure Time	Responsibility	Socialization
MS ^a =	22	8	8	12	6	8	4	11	9	8	3	6	26
N & OS ^b of OS ^b	OS N %	OS N %	OS N %	OS N %	OS N %	OS N %	OS N %	OS N %	OS N %	OS N %	OS N %	OS N %	OS N %
	11 1 4 13 2 8 14 1 4 15 1 4 16 2 8 17 4 16 18 9 36 19 3 12 22 2 8	0 1 4 1 3 12 2 4 16 3 8 24 4 4 16 5 1 4 6 2 8 7 2 8 8 2 8	0 3 12 1 3 12 2 4 16 3 2 8 4 7 28 5 3 12 6 1 4 7 2 8 8 2 8	0 1 4 6 2 8 7 3 12 8 1 4 9 5 20 10 3 12 11 2 8 12 8 32	0 5 20 1 5 20 2 4 16 3 1 4 4 1 4 5 3 12 6 6 24	0 5 20 1 2 8 3 5 20 4 2 8 5 2 8 6 3 12 8 6 24	0 7 28 1 4 16 2 4 16 3 1 4 4 9 36	0 1 4 5 1 4 6 4 16 7 3 12 8 1 4 10 5 20 11 10 40	1 3 12 2 1 4 3 1 4 4 2 8 5 3 12 6 3 12 7 3 12 8 3 12 9 6 24	0 1 4 1 2 8 2 2 8 5 6 24 6 1 4 7 5 20 8 8 32	0 2 8 1 18 72 2 5 20	0 3 12 1 2 8 2 2 8 3 1 4 4 5 20 5 7 28 6 5 20	5 1 4 9 1 4 10 2 8 11 1 4 12 2 8 13 1 4 14 2 8 17 3 12 18 3 12 19 1 4 20 3 12 21 2 8 23 2 8 24 1 4
T	25	25	25	25	25	25	25	25	25	25	25	25	25
O	N												
T	A	100	100	100	100	100	100	100	100	100	100	100	100
L													

^aMS = maximum score.^bOS = obtained score.



Domain No.			1	2	3	4	5	6	7	8	9	10	
Subj. No.	MI Levels	Age Group	Sex	Independ. Funct. MS = 107 ^a	Physical Develop. MS = 24	Economic Activity MS = 17	Language Develop. MS = 38	Numbers & Time MS = 12	Domestic Activity MS = 18	Vocational Activity MS = 11	Self Direction MS = 20	Responsibility MS = 6	Socialization MS = 26
1	68-83	13-15	M	99	24	15	25	12	12	11	19	6	23
2		16-18	M	82	18	8	21	9	6	6	5	0	9
3		19-29	F	100	24	11	29	10	18	11	11	4	19
4		30-49	M	84	23	3	20	11	1	7	11	3	10
5			M	68	17	4	20	9	0	10	12	4	12
6	52-67 ^b	19-29	F	86	23	10	21	12	16	11	19	5	17
7		19-29 ^b	M	92	23	12	18	12	3	11	16	5	18
8			M	82	24	4	28	9	7	8	8	1	14
9			M	97	24	12	23	11	17	11	18	5	23
10			M	100	24	10	26	8	18	11	13	4	12
11			M	94	19	3	17	6	14	6	6	2	13
12			M	107	24	16	38	9	17	5	8	4	11
13			M	96	24	12	26	9	17	6	10	4	18
14			M	92	23	10	29	12	9	11	15	6	20
15			M	98	24	16	26	12	12	7	17	5	20
16			M	107	24	15	24	12	7	10	18	6	24
17			M	67	24	5	14	6	0	0	3	0	10
18			M	85	22	13	25	12	4	10	10	2	21
19			M	28	13	3	11	0	0	7	2	0	5
20			M	87	22	14	23	10	7	10	18	5	18
21			M	93	24	10	26	10	7	10	15	5	17
22			M	79	21	12	23	7	7	6	12	1	17
23			M	85	22	12	20	7	1	11	16	6	14
24			M	91	23	12	26	7	5	11	17	5	20
25			M	107	24	16	38	12	18	11	18	6	21
Egyptian Mean ^b				88.8	22.5	10.9	24.3	9.0	8.9	8.5	12.6	3.8	16.6
Egyptian SD				19.9	2.7	4.3	6.8	3.1	6.3	3.0	5.2	2.1	4.9

^aMS = maximum score.

^bMean and standard deviation shown here were counted only for males of age group 19-29 and IQ level 52-67 for the purpose of comparing them to the American normative sample.



APPENDIX D

FREQUENCY DISTRIBUTION FOR PARENTS' AND PROFESSIONALS'

PERCEPTIONS OF COMPETENCY STATEMENTS AND PARENTS'

PERCEPTIONS OF PROGRAM IMPACT

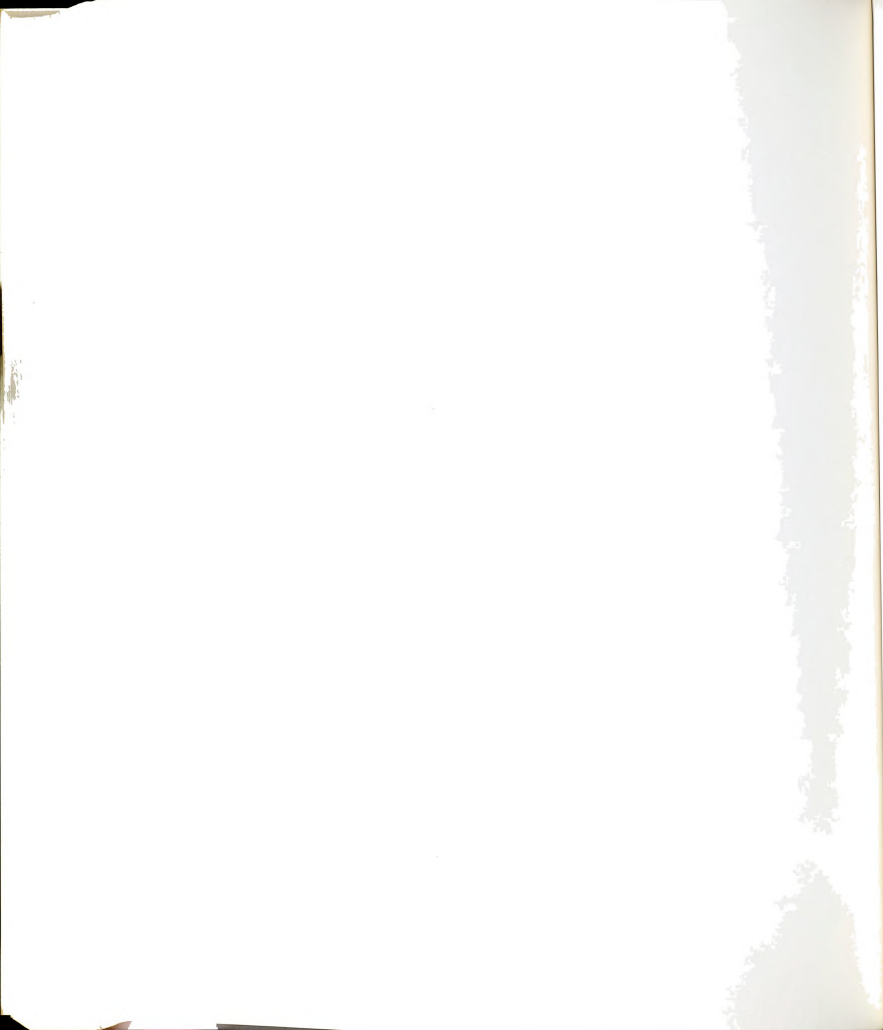


Table D-1.--Observed frequency distributions regarding both perceived importance of IL competencies and program impact on them by parents.

	Perceived Importance						Perceived Impact					
	0	1	2	3	4	5	0	1	2	3	4	5
<u>IND. FUNCT.</u>												
<u>A. Eating</u>												
Statement 1												
N	0	6	1	6	10	2	3	11	5	4	2	0
%	0	24	40	24	40	8	12	44	20	16	8	0
Statement 2												
N	0	2	1	8	11	3	3	9	7	5	1	0
%	0	8	4	32	44	12	12	36	28	20	4	0
Statement 3												
N	0	1	0	1	15	8	2	10	6	6	1	0
%	0	4	0	4	60	32	8	40	24	24	4	0
Statement 4												
N	0	0	0	6	14	5	2	11	6	3	3	0
%	0	0	0	24	56	20	8	44	24	12	12	0
<u>B. Toilet Use</u>												
Statement 5												
N	0	0	0	0	10	15	2	11	4	4	4	0
%	0	0	0	0	40	60	8	44	16	16	16	0
Statement 6												
N	0	0	0	0	11	14	2	11	5	3	4	0
%	0	0	0	0	44	56	8	44	20	12	16	0
<u>C. Cleanliness</u>												
Statement 7												
N	0	0	0	0	14	11	1	13	4	3	4	0
%	0	0	0	0	56	44	4	52	16	12	16	0
Statement 8												
N	0	0	0	1	16	8	2	13	6	2	2	0
%	0	0	0	4	64	32	8	52	24	8	8	0



ble D-1.--Continued.

	Perceived Importance						Perceived Impact					
	0	1	2	3	4	5	0	1	2	3	4	5
Statement 9												
N	0	0	0	0	17	8	2	12	7	1	3	0
%	0	0	0	0	68	32	8	48	28	4	12	0
Statement 10												
N	0	1	1	2	14	7	2	12	4	3	4	0
%	0	4	4	8	56	28	8	48	16	12	16	0
Statement 11												
N	14	0	0	0	6	5	15	7	1	1	1	0
%	56	0	0	0	24	20	60	28	4	4	4	0
D. <u>Appearance</u>												
Statement 12												
N	0	0	1	7	13	4	1	13	4	5	2	0
%	0	0	4	28	52	16	4	52	16	20	8	0
Statement 13												
N	0	0	0	6	15	4	1	11	4	6	3	0
%	0	0	0	24	60	16	4	44	16	24	12	0
E. <u>Care of Clothing</u>												
Statement 14												
N	0	0	1	7	14	3	4	10	6	4	1	0
%	0	0	4	28	56	12	16	40	24	16	4	0
F. <u>Dressing & Undressing</u>												
Statement 15												
N	0	0	0	2	18	5	3	10	5	4	3	0
%	0	0	0	8	72	20	12	40	20	16	12	0
Statement 16												
N	0	0	0	1	19	5	3	11	5	4	2	0
%	0	0	0	4	76	20	12	44	20	16	8	0
Statement 17												
N	0	0	0	1	19	5	3	11	5	3	3	0
%	0	0	0	4	76	20	12	44	20	12	12	0



Table D-1.--Continued.

	Perceived Importance						Perceived Impact					
	0	1	2	3	4	5	0	1	2	3	4	5
G. Travel												
Statement 18												
N	0	0	0	2	14	9	4	2	6	9	4	0
%	0	0	0	8	56	36	16	8	24	36	16	0
Statement 19												
N	1	2	0	7	11	4	4	4	6	8	2	0
%	4	8	0	28	44	16	16	16	28	32	8	0
H. Other Indep. Function.												
Statement 20												
N	1	2	5	9	6	2	4	13	2	5	1	0
%	4	8	20	36	24	8	16	52	8	20	4	0
Statement 21												
N	0	0	0	4	15	6	4	8	4	7	2	0
%	0	0	0	16	60	24	16	32	16	28	8	0
Statement 22												
N	0	1	0	3	14	7	3	8	6	6	2	0
%	0	4	0	12	56	28	12	32	24	24	8	0
Statement 23												
N	0	0	1	4	14	6	3	8	8	4	2	0
%	0	0	4	16	56	24	12	32	32	16	8	0
Statement 24												
N	0	2	9	6	4	4	3	13	1	7	0	1
%	0	8	36	24	16	16	12	52	4	28	0	4
Statement 25												
N	0	0	0	3	14	8	3	10	4	5	3	0
%	0	0	0	12	56	32	12	40	16	20	12	0
Statement 26												
N	0	0	0	4	18	3	1	8	8	4	3	1
%	0	0	0	16	72	12	4	32	32	16	12	4



Table p-1.--Continued.

	Perceived Importance						Perceived Impact					
	0	1	2	3	4	5	0	1	2	3	4	5
Statement 27												
N	0	0	0	5	15	5	2	7	5	6	3	2
%	0	0	0	20	60	20	8	28	20	24	12	8
II. <u>PHYS. DEV.</u>												
A. <u>Sensory Development</u>												
Statement 28												
N	2	0	1	3	13	6	6	14	3	2	0	0
%	8	0	4	12	52	24	24	56	12	8	0	0
Statement 29												
N	3	0	1	0	12	9	7	14	3	1	0	0
%	12	0	4	0	48	36	28	56	12	4	0	0
B. <u>Motor Development</u>												
Statement 30												
N	1	1	2	8	9	4	4	7	5	9	0	0
%	4	4	8	32	36	16	16	28	20	36	0	0
Statement 31												
N	0	2	1	9	10	3	3	5	5	10	2	0
%	0	8	4	36	40	12	12	20	20	40	8	0
Statement 32												
N	0	0	0	6	13	6	2	4	6	10	3	0
%	0	0	0	24	52	24	8	16	24	40	12	0
Statement 33												
N	0	0	3	3	14	5	3	3	6	9	4	0
%	0	0	12	12	56	20	12	12	24	36	16	0
III. <u>ECON. ACTIV.</u>												
A. <u>Money Handl. & Budgeting</u>												
Statement 34												
N	0	0	3	8	8	6	3	3	9	8	2	0
%	0	0	12	32	32	24	12	12	36	32	8	0



Table D-1.--Continued.

	Perceived Importance						Perceived Impact					
	0	1	2	3	4	5	0	1	2	3	4	5
Statement 35												
N	0	0	2	6	14	3	2	7	6	7	3	0
%	0	0	8	24	56	12	8	28	24	28	12	0
B. <u>Shopping Skills</u>												
Statement 36												
N	0	0	1	2	12	10	3	4	6	6	5	1
%	0	0	4	8	48	40	12	16	24	24	20	4
Statement 37												
N	0	0	1	4	12	8	6	7	4	5	2	1
%	0	0	4	16	48	32	24	28	16	20	8	4
V. <u>LANG. DEV.</u>												
A. <u>Expression</u>												
Statement 38												
N	1	2	6	12	4	0	3	10	6	5	1	0
%	4	8	24	48	16	0	12	40	24	20	4	0
Statement 39												
N	1	1	1	7	13	2	3	9	4	7	2	0
%	4	4	4	28	52	8	12	36	16	28	8	0
Statement 40												
N	0	0	0	3	21	1	4	4	3	11	3	0
%	0	0	0	12	84	4	16	16	12	44	12	0
Statement 41												
N	0	0	0	10	12	3	4	4	5	8	4	0
%	0	0	0	40	48	12	16	16	20	32	16	0
Statement 42												
N	0	0	1	14	8	2	4	5	3	12	1	0
%	0	0	4	56	32	8	16	20	12	48	4	0
B. <u>Comprehension</u>												
Statement 43												
N	2	3	4	9	4	3	5	6	5	8	1	0
%	8	12	16	36	16	12	20	24	20	32	4	0



ble D-1.--Continued.

	Perceived Importance						Perceived Impact					
	0	1	2	3	4	5	0	1	2	3	4	5
Statement 44												
N	1	1	4	12	5	2	4	5	6	9	1	0
%	4	4	16	48	20	8	16	20	24	36	40	0
C. <u>Social Lang.</u> <u>Development</u>												
Statement 45												
N	0	2	2	7	11	3	4	4	3	10	4	0
%	0	8	8	28	44	12	16	16	12	40	16	0
Statement 46												
N	0	1	3	11	10	0	4	5	6	9	1	0
%	0	4	12	44	40	0	16	20	24	36	4	0
Statement 47												
N	1	4	6	9	4	1	5	9	2	8	1	0
%	4	16	24	36	16	4	20	36	8	32	4	0
Statement 48												
N	2	2	4	11	4	2	6	7	3	8	1	0
%	8	8	16	44	16	8	24	28	12	32	4	0
Statement 49												
N	1	4	7	10	3	0	7	8	5	5	0	0
%	4	16	28	40	12	0	28	32	20	20	0	0
<u>NUMBERS &</u> <u>TIME</u>												
Statement 50												
N	0	1	3	3	16	2	2	4	7	7	5	0
%	0	4	12	12	64	8	8	16	28	28	20	0
Statement 51												
N	0	2	0	5	16	2	2	4	7	7	5	0
%	0	8	0	20	64	8	8	16	28	28	20	0
Statement 52												
N	0	2	1	5	15	2	3	5	4	9	4	0
%	0	8	4	20	60	8	12	20	16	36	16	0



ble D-1.--Continued.

	Perceived Importance						Perceived Impact					
	0	1	2	3	4	5	0	1	2	3	4	5
Statement 53												
N	0	2	3	11	7	2	5	6	2	10	2	0
%	0	8	12	44	28	8	20	24	8	40	8	0
Statement 54												
N	0	1	0	12	10	2	4	2	6	9	4	0
%	0	4	0	48	40	8	16	8	24	36	16	0
Statement 55												
N	0	1	1	0	20	3	1	1	8	10	5	0
%	0	4	4	0	80	8	4	4	32	40	20	0
<u>DOMESTIC ACT.</u>												
<u>A. Cleaning</u>												
Statement 56												
N	1	2	3	2	12	5	4	9	7	3	2	0
%	4	8	12	8	48	20	16	36	28	12	8	0
Statement 57												
N	0	4	6	0	11	4	5	12	4	3	1	0
%	0	16	24	0	44	16	20	48	16	12	4	0
<u>B. Kitchen</u>												
Statement 58												
N	0	1	2	10	9	3	4	9	6	6	0	0
%	0	4	8	40	36	12	16	36	24	24	0	0
Statement 59												
N	0	4	5	5	11	0	5	12	4	4	0	0
%	0	16	20	20	44	0	20	48	16	16	0	0
Statement 60												
N	0	2	2	6	14	1	5	9	7	3	1	0
%	0	8	8	24	56	4	20	36	28	12	4	0
<u>C. Other Domest. Activities</u>												
Statement 61												
N	0	3	2	4	14	2	5	11	4	5	0	0
%	0	12	8	16	56	8	20	44	16	20	0	0



Table D-1.--Continued.

	Perceived Importance						Perceived Impact					
	0	1	2	3	4	5	0	1	2	3	4	5
I. VOC. ACT.												
Statement 62												
N	0	2	0	5	15	3	1	3	2	10	9	0
%	0	8	0	20	60	12	4	12	8	40	36	0
Statement 63												
N	0	0	1	2	18	4	1	3	3	7	11	0
%	0	0	4	8	72	18	4	12	12	28	44	0
Statement 64												
N	0	0	0	1	20	4	1	2	4	8	9	1
%	0	0	0	4	80	16	4	8	16	32	36	4
I. SELF-DIRECT.												
A. Initiation												
Statement 65												
N	0	1	2	5	13	4	2	6	3	11	3	0
%	0	4	8	20	52	16	8	24	12	44	12	0
Statement 66												
N	0	1	1	10	11	2	2	5	5	11	2	0
%	0	4	4	40	44	8	8	20	20	44	8	0
B. Perseverance												
Statement 67												
N	0	2	5	12	4	2	3	10	1	10	1	0
%	0	8	20	48	16	8	12	40	4	40	4	0
Statement 68												
N	0	0	3	9	10	3	2	8	2	9	4	0
%	0	0	12	36	40	12	8	32	8	36	16	0
C. Leisure Time												
Statement 69												
N	0	1	4	8	8	4	2	5	5	10	3	0
%	0	4	16	32	32	16	8	20	20	40	12	0



Table D-1.--Continued.

	Perceived Importance						Perceived Impact					
	0	1	2	3	4	5	0	1	2	3	4	5
X. <u>RESPONSIBILITY</u>												
Statement 70												
N	0	2	0	4	16	3	2	4	3	10	6	0
%	0	8	0	16	64	12	8	16	12	40	24	0
Statement 71												
N	0	0	0	5	16	4	1	4	0	16	3	1
%	0	0	0	20	64	16	4	16	0	64	12	4
X. <u>SOCIALIZATION</u>												
Statement 72												
N							2	4	3	10	6	0
%	1	0	1	8	9	6	8	16	12	40	24	0
Statement 73												
N	0	1	2	9	8	5	3	4	4	9	5	0
%	0	4	8	36	32	20	12	16	16	36	20	0
Statement 74												
N	0	0	2	1	17	5	2	7	6	9	1	0
%	0	0	8	4	68	20	8	28	24	36	4	0
Statement 75												
N	2	3	9	6	1	4	6	4	7	8	0	0
%	8	12	36	24	4	16	24	16	28	32	0	0
Statement 76												
N	0	1	6	9	4	5	5	5	6	8	1	0
%	0	4	24	36	16	20	20	20	24	32	4	0
Statement 77												
N	0	2	1	9	10	3	5	5	4	7	4	0
%	0	8	4	36	40	12	20	20	16	28	16	0
Statement 78												
N	0	0	1	6	14	4	3	4	3	11	4	0
%	0	0	4	24	56	16	12	16	12	44	16	0



ble D-2.--Observed frequencies regarding perceived importance of
IL competencies by professionals.

	Perceived Importance					
	0	1	2	3	4	5
<u>INDEPEND. FUNCT.</u>						
<u>A. Eating</u>						
Statement 1						
N	0	0	2	18	6	4
%	0	0	6.7	60.0	20.0	13.3
Statement 2						
N	0	4	6	12	6	2
%	0	13.3	20.0	40.0	20.0	6.7
Statement 3						
N	0	0	1	4	13	12
%	0	0	3.3	13.3	43.3	40.0
Statement 4						
N	0	0	0	6	17	7
%	0	0	0	20.0	56.7	23.3
<u>B. Toilet Use</u>						
Statement 5						
N	0	0	0	2	6	22
%	0	0	0	6.7	20.0	73.3
Statement 6						
N	0	0	0	2	8	20
%	0	0	0	6.7	26.7	66.7
<u>C. Cleanliness</u>						
Statement 7						
N	0	0	0	1	8	21
%	0	0	0	3.3	26.7	70.0
Statement 8						
N	0	0	0	4	18	8
%	0	0	0	13.3	60.0	26.7
Statement 9						
N	0	0	1	2	18	9
%	0	0	3.3	6.7	60.0	30.0



Table D-2.--Continued.

	Perceived Importance					
	0	1	2	3	4	5
Statement 10						
N	0	0	1	4	17	8
%	0	0	3.3	13.3	56.7	26.7
Statement 11						
N	0	0	0	1	12	17
%	0	0	0	3.3	40.0	56.7
<u>D. Appearance</u>						
Statement 12						
N	0	0	3	4	17	6
%	0	0	10.0	13.3	56.7	20.0
Statement 13						
N	0	0	1	5	19	5
%	0	0	3.3	16.7	63.3	16.7
<u>E. Care of Clothing</u>						
Statement 14						
N	0	0	2	4	17	7
%	0	0	6.7	13.3	56.7	23.3
<u>F. Dressing & Undressing</u>						
Statement 15						
N	0	0	0	3	14	13
%	0	0	0	10.0	46.7	43.3
Statement 16						
N	0	0	0	3	13	14
%	0	0	0	10.0	43.3	46.7
Statement 17						
N	0	0	0	4	15	11
%	0	0	0	13.3	50.0	36.7
<u>G. Travel</u>						
Statement 18						
N	0	0	4	12	6	8
%	0	0	13.3	40.0	20.0	26.7



Table D-2.--Continued.

	Perceived Importance					
	0	1	2	3	4	5
Statement 19						
N	0	2	9	10	3	6
%	0	6.7	30.0	33.3	16.0	20.0
H. <u>Other Independ.</u>						
<u>Functioning</u>						
Statement 20						
N	0	4	6	12	5	3
%	0	13.3	20.0	40.0	16.7	10.0
Statement 21						
N	0	0	0	8	18	4
%	0	0	0	26.7	60.0	13.3
Statement 22						
N	0	0	0	4	22	4
%	0	0	0	13.3	73.3	13.3
Statement 23						
N	0	1	0	9	14	6
%	0	3.3	0	30.0	46.7	20.0
Statement 24						
N	1	1	12	9	5	2
%	3.3	3.3	40.0	30.0	16.7	6.7
Statement 25						
N	0	0	1	4	19	6
%	0	0	3.3	13.3	63.3	20.0
Statement 26						
N	0	1	1	12	14	2
%	0	3.3	3.3	40.0	46.7	6.7
Statement 27						
N	0	0	2	5	18	5
%	0	0	6.7	16.7	60.0	16.7



Table D-2.--Continued.

	Perceived Importance					
	0	1	2	3	4	5
<u>. PHYSICAL DEVELOP.</u>						
<u>A. Sensory Develop.</u>						
Statement 28						
N	0	0	1	9	20	0
%	0	0	3.3	30.0	66.7	0
Statement 29						
N	1	0	2	10	15	2
%	3.3	0	6.7	33.3	50.0	6.7
<u>B. Motor Develop.</u>						
Statement 30						
N	0	4	4	17	3	2
%	0	13.3	13.3	56.7	10.0	6.7
Statement 31						
N	0	1	2	6	14	7
%	0	3.3	6.7	20.0	46.7	23.3
Statement 32						
N	0	0	1	4	17	8
%	0	0	3.3	13.3	56.7	26.7
Statement 33						
N	0	0	3	6	12	9
%	0	0	10.0	20.0	40.0	30.0
<u>. ECONOMIC ACTIVITY</u>						
<u>A. Money Handling & Budgeting</u>						
Statement 34						
N	0	2	6	13	7	2
%	0	6.7	20.0	43.3	23.3	6.7
Statement 35						
N	0	2	4	13	9	2
%	0	6.7	13.3	43.3	30.0	5.7



Table D-2.--Continued.

	Perceived Importance					
	0	1	2	3	4	5
<u>B. Shopping Skills</u>						
Statement 36						
N	0	1	2	7	12	8
%	0	3.3	6.7	23.3	40.0	26.7
Statement 37						
N	0	1	3	15	9	2
%	0	3.3	10.0	50.0	30.0	6.7
<u>LANGUAGE DEVELOP.</u>						
<u>A. Expression</u>						
Statement 38						
N	1	4	3	11	6	5
%	3.3	13.3	10.0	36.7	20.0	16.7
Statement 39						
N	0	0	1	5	16	8
%	0	0	3.3	16.7	53.3	26.7
Statement 40						
N	0	1	1	5	18	5
%	0	3.3	3.3	16.7	60.0	16.7
Statement 41						
N	0	1	3	9	11	6
%	0	3.3	10	30.0	36.7	20.0
Statement 42						
N	0	1	7	12	6	4
%	0	3.3	23.3	40.0	20.0	13.3
<u>B. Comprehension</u>						
Statement 43						
N	1	1	4	10	10	4
%	3.3	3.3	13.3	33.3	33.3	13.3
Statement 44						
N	0	1	6	8	10	5
%	0	3.3	20.0	26.7	33.3	16.7



Table D-2.--Continued.

	Perceived Importance					
	0	1	2	3	4	5
<u>C. Social Language Development</u>						
Statement 45						
N	0	0	0	10	15	5
%	0	0	0	33.3	50.0	16.7
Statement 46						
N	0	0	5	12	12	1
%	0	0	16.7	40.0	40.0	3.3
Statement 47						
N	2	3	5	15	3	2
%	6.7	10	16.7	50.0	10.0	6.7
Statement 48						
N	0	1	6	14	8	1
%	0	3.3	20.0	46.7	26.7	3.3
Statement 49						
N	0	3	7	12	5	3
%	0	10.0	23.3	40.0	16.7	10.0
<u>NUMBERS & TIME</u>						
Statement 50						
N	0	0	1	6	18	5
%	0	0	3.3	20.0	60.0	16.7
Statement 51						
N	0	1	1	8	17	3
%	0	3.3	3.3	26.7	56.7	10.0
Statement 52						
N	0	0	1	11	14	4
%	0	0	3.3	36.7	46.7	13.3
Statement 53						
N	0	0	6	13	7	4
%	0	0	20.0	43.3	23.3	13.3



Table D-2.--Continued.

	Perceived Importance					
	0	1	2	3	4	5
Statement 54						
N	0	0	1	12	13	4
%	0	0	3.3	40.0	43.3	13.3
Statement 55						
N	0	0	0	4	19	7
%	0	0	0	13.3	63.3	23.3
<u>. DOMESTIC ACTIVITY</u>						
<u>A. Cleaning</u>						
Statement 56						
N	0	0	2	9	16	3
%	0	0	6.7	30.0	53.3	10.0
Statement 57						
N	0	0	6	15	8	1
%	0	0	20.0	50.0	26.7	3.3
<u>B. Kitchen</u>						
Statement 58						
N	0	0	7	11	11	1
%	0	0	23.3	36.7	36.7	3.3
Statement 59						
N	0	3	7	11	7	2
%	0	10.0	23.3	36.7	23.3	6.7
Statement 60						
N	0	1	4	10	14	1
%	0	3.3	13.3	33.3	46.7	3.3
<u>C. Other Domestic Activities</u>						
Statement 61						
N	1	0	3	10	14	2
%	3.3	0	10.0	33.3	46.7	6.7



ble D-2.--Continued.

		Perceived Importance					
		0	1	2	3	4	5
<u>VOCATIONAL ACTIVITY</u>							
Statement 62							
N		1	0	3	6	18	2
%		3.3	0	10.0	20.0	60.0	6.7
Statement 63							
N		0	0	0	2	20	8
%		0	0	0	6.7	66.7	26.7
Statement 64							
N		0	1	0	4	17	8
%		0	3.3	0	13.3	56.7	26.7
<u>SELF-DIRECTION</u>							
<u>A. Initiation</u>							
Statement 65							
N		0	0	2	13	11	4
%		0	0	6.7	43.3	36.7	13.3
Statement 66							
N		0	1	2	18	7	2
%		0	3.3	6.7	60.0	23.3	6.7
<u>B. Perseverance</u>							
Statement 67							
N		0	1	0	8	18	3
%		0	3.3	0	26.7	60.0	10.0
Statement 68							
N		0	0	2	11	14	3
%		0	0	6.7	36.7	46.7	10.0
<u>C. Leisure Time</u>							
Statement 69							
N		0	2	2	11	11	4
%		0	6.7	6.7	36.7	36.7	13.3



Table D-2.--Continued.

	Perceived Importance					
	0	1	2	3	4	5
<u>RESPONSIBILITY</u>						
Statement 70						
N	1	0	0	8	19	2
%	3.3	0	0	26.7	63.3	6.7
Statement 71						
N	0	1	2	4	18	5
%	0	3.3	6.7	13.3	60.0	16.7
<u>SOCIALIZATION</u>						
Statement 72						
N	0	0	1	11	14	14
%	0	0	3.3	36.7	46.7	13.3
Statement 73						
N	0	1	3	13	12	1
%	0	3.3	10.0	43.3	40.0	3.3
Statement 74						
N	0	1	3	8	13	5
%	0	3.3	10.0	26.7	43.3	16.7
Statement 75						
N	1	0	1	6	18	4
%	3.3	0	3.3	20	60.0	13.3
Statement 76						
N	0	0	1	9	15	5
%	0	0	3.3	30.0	50.0	16.7
Statement 77						
N	1	0	1	7	16	5
%	3.3	0	3.3	23.3	53.3	16.7
Statement 78						
N	0	1	1	7	17	4
%	0	3.3	3.3	23.3	56.7	13.3



Table D-3.--Comparison of parents' perception to professionals' perception regarding all the competency statements.

Item No.	Parents		Professionals		t
	Mean	SD	Mean	SD	
1	3.0400	1.338	3.4000	0.814	.247
2	3.4800	1.046	2.8667	1.106	.040*
3	4.1600	0.050	4.2000	0.805	.860
4	3.9600	0.676	4.0333	0.669	.689
5	4.6000	0.500	4.6667	0.606	.657
6	4.5600	0.507	4.6000	0.621	.794
7	4.4400	0.507	4.6667	0.547	.117
8	4.2800	0.542	4.1333	0.629	.357
9	4.3200	0.476	4.1667	0.699	.340
10	4.0000	0.957	4.0667	0.740	.777
11	4.4545	0.522	4.5333	0.571	.681
12	3.8000	0.764	3.8667	0.860	.762
13	3.9200	0.640	3.9333	0.691	.941
14	3.7600	0.723	3.9667	0.808	.322
15	4.1200	0.526	4.3333	0.661	.188
16	4.1600	0.473	4.3667	0.669	.187
17	4.1600	0.473	4.2333	0.679	.640
18	4.2800	0.614	3.6000	1.037	.004*
19	3.6250	1.056	3.0667	1.230	.079
20	3.0417	1.083	2.9000	1.155	.645
21	4.0800	0.640	3.8667	0.629	.221
22	4.0400	0.889	4.0000	0.525	.844
23	4.0000	0.764	3.8000	0.887	.373
24	2.9600	1.241	2.8276	1.002	.672
25	4.2000	0.645	4.0000	0.695	.274
26	3.9600	0.539	3.5000	0.820	.016*
27	4.0000	0.645	3.8667	0.776	.490
28	4.0435	0.767	3.6333	0.556	.037*
29	4.3182	0.716	3.5862	0.733	.001*
30	3.5417	1.021	2.8333	1.020	.014*
31	3.4400	1.044	3.8000	0.997	.200
32	4.0000	0.707	4.0667	0.740	.735
33	3.8400	0.898	3.9000	0.960	.812
34	3.6800	0.988	3.0333	0.999	.020*
35	3.7200	0.792	3.1667	0.986	.025*
36	4.2400	0.779	3.8000	1.031	.077
37	4.0800	0.812	3.2667	0.868	.001*
38	2.7500	0.847	3.1724	1.256	.152
39	3.5833	0.881	4.0333	0.765	.054
40	3.9200	0.400	3.8333	0.874	.630
41	3.7200	0.678	3.6000	1.037	.609
42	3.4400	0.712	3.1667	1.053	.259



Table D-3.--Continued.

Item No.	Parents		Professionals		t
	Mean	SD	Mean	SD	
43	3.0000	1.206	3.4138	1.018	.195
44	3.1250	0.947	3.4000	1.102	.329
45	3.4400	1.083	3.8333	0.699	.126
46	3.2000	0.816	3.3000	0.794	.649
47	2.6667	1.090	2.8571	1.008	.519
48	3.0000	1.044	3.0667	0.868	.806
49	2.5000	0.933	2.9333	1.112	.126
50	3.6000	0.957	3.9000	0.712	.202
51	3.6400	0.952	3.6667	0.844	.914
52	3.5600	1.003	3.7000	0.750	.567
53	3.1600	1.028	3.3000	0.952	.605
54	3.8400	0.823	3.6667	0.758	.390
55	3.9200	0.812	4.1000	0.607	.365
56	3.6250	1.209	3.6667	0.758	.884
57	3.2000	1.414	3.1333	0.776	.834
58	3.4400	0.961	3.2000	0.847	.335
59	2.9200	1.152	2.9333	1.081	.965
60	3.4000	1.000	3.4333	0.884	.796
61	3.4000	1.155	3.5172	0.785	.670
62	3.6800	0.988	3.6552	0.769	.919
63	4.0000	0.645	4.2000	0.551	.228
64	4.1200	0.440	4.0333	0.850	.630
65	3.6800	0.988	3.5667	0.817	.649
66	3.4800	0.872	3.2333	0.817	.288
67	2.9600	1.020	3.7333	0.785	.003*
68	3.5200	0.872	3.6000	0.770	.723
69	3.4000	1.080	3.4333	1.040	.908
70	3.7200	0.980	3.7931	0.559	.744
71	3.9600	0.611	3.8000	0.925	.446
72	3.8333	0.868	3.7000	0.750	.554
73	3.5600	1.044	3.3000	0.837	.320
74	4.0000	0.764	3.6000	1.003	.099
75	2.7391	1.287	3.8621	0.693	.001*
76	3.2400	1.165	3.8000	0.761	.045*
77	3.4400	1.044	3.8621	0.743	.099
78	3.8400	0.746	3.7333	0.868	.627

*Significant at the .05 level.



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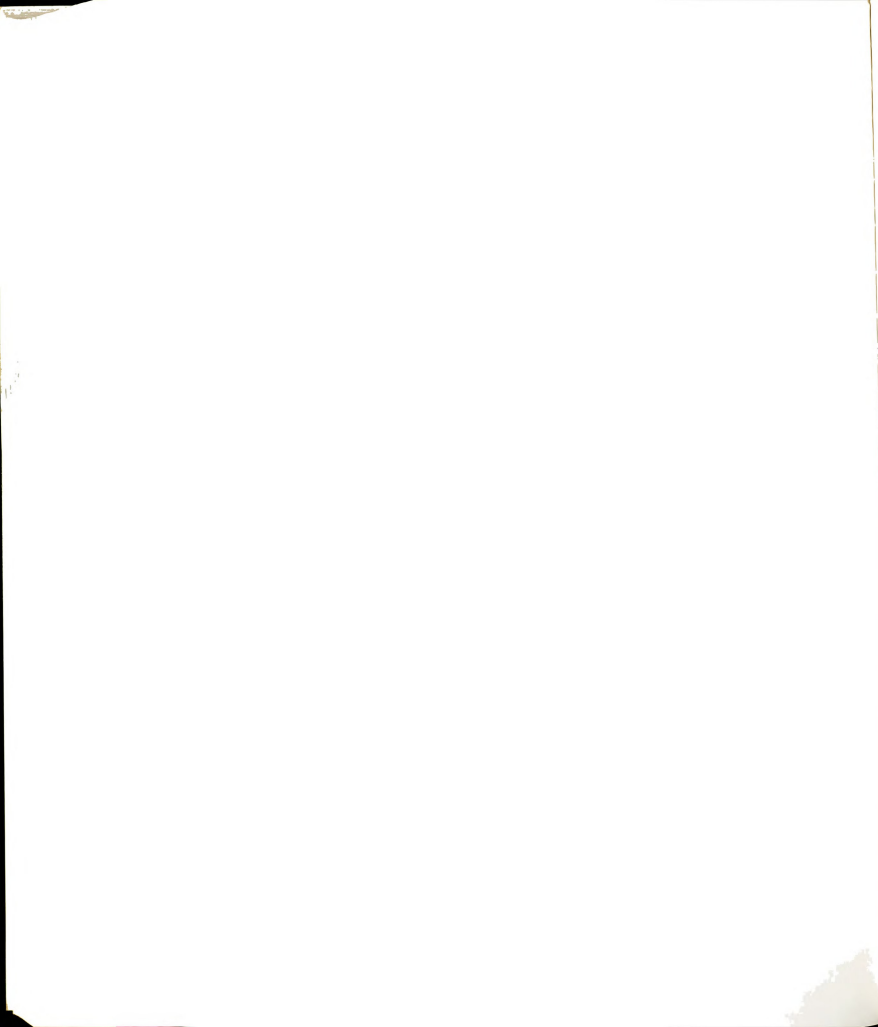
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