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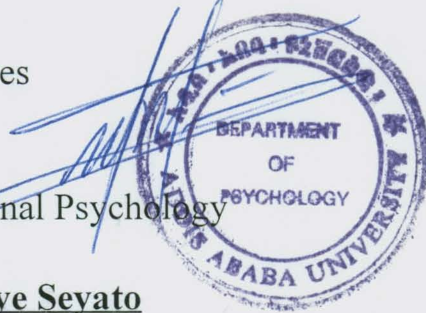

Subject: **M.A. Thesis of Nema Behutiye Seyato**

Please find enclosed the M.A Thesis of Nema Behutiye Seyato entitled "Assessment of Adaptive Behavior of Some Children with Mental Retardation in Ethiopia."Nema Behutiye Seyato has finalized the thesis according to the requirements of the examining committee. Please accept the thesis.

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ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

ASSESSMENT OF ADAPTIVE BEHAVIOR OF SOME CHILDREN WITH MENTAL RETARDATION IN ETHIOPIA

BY

NEMA BEHUTIYE SEYATO

MAY, 2000

ADDIS ABABA UNIVERSITY

SCHOOL OR GRADUATE STUDIES

ASSESSMENT OF ADAPTIVE BEHAVIOR OF SOME CHILDREN WITH MENTAL RETARDATION IN ETHIOPIA

BY

NEMA BEHUTIYE SEYATO

APPROVED BY THE EXAMINING BOARD

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ASSESSMENT OF ADAPTIVE BEHAVIOR OF SOME CHILDREN WITH MENTAL RETARDATION IN ETHIOPIA

A THESIS SUBMITTED
TO THE SCHOOL OF GRADUATE STUDIES OF ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF ARTS IN SPECIAL EDUCATION

NEMA BEHUTIYE SEYATO

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Improvement in the field of education often requires new ideas and steps into the undiscovered areas. Such steps are never attainable without the collaboration and unreserved support of others. This I think, is the right place and time to thank such important persons.

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Nema Behutiye Seyato.

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Abbreviations/Acronyms

ABS 1992E	-	Adaptive Behavior Scale Adapted in 1992 Ethiopia by the researcher for screening the behavioral characteristics of the children under the study.
AA	-	Addis Ababa
A/D/B	-	Amhara Region (Debre Birhan)
ABIC	-	Adaptive Behavior Inventory for Children
ABS	-	Adaptive Behavior Scale
ABSSE	-	Adaptive Behavior Scale for School Edition
AAMD/R	-	American Association on Mental Deficiency/Retardation
IQ	-	Intelligence Quotient
DTE-MOE	-	Department of Teacher Education-Ministry of Education
SOOM	-	Support Organization of Mentally-Handicapped
APA	-	American Psychologists' Association
WHO	-	World Health Organization
O/Jimma	-	Oromiya Jimma
S_1-S_{12}	-	Sample student (Child) 1-Sample student 12
D1	-	Domain 1 refers to independent functioning of adaptive behaviors
D2	-	Domain 2 refers to physical development
D3	-	Domain 3 refers to economic activity
D4	-	Domain 4 refers to language development
D5	-	Domain 5 refers to academic skills functioning
D6	-	Domain 6 refers to domestic activity
D7	-	Domain 7 refers to prevocational activity
D8	-	Domain 8 refers to self- direction
D9	-	Domain 9 refers to responsibility
D10	-	Domain 10 refers to social maturity

D1	-	Domain 1 (maladaptive behavior) refers to violent and destructive behaviors
D2	-	Domain 2 refers to anti social behavior
D3	-	Domain 3 refers to rebellious behavior
D4	-	Domain 4 refers to untrustworthy behavior
D5	-	Domain 5 refers to withdrawal behavior
D6	-	Domain 6 refers stereotyped behavior
D7	-	Domain 7 refers to unacceptable vocal habits
D8	-	Domain 8 refers to eccentric habits
D9	-	Domain 9 refers to self -abusive behavior
D10	-	Domain 10 refers to psychosocial and use of medication.

Appendices

1	=	Adaptive Behavior Scale 1992
2	=	Parents' interview
3	=	Teachers' interview
4	=	Academic Skills' Test
5	=	Deviation Charts
6	=	Correlation analysis

Abstract

Assessment of individual children's needs and potential abilities at early period of development has central importance for their over all development. It is more advantageous for children with mental retardation. On the other hand, effective assessment involves formulated identification techniques and appropriate instruments.

This study attempts to asses adaptive behavior of children with mental retardation; understandings of their parents and teachers about mental retardation and treatment of the children in view. Adapted behavior scale and originally developed interview for parents and teachers of the children were used for data collection. The instruments used were validated and piloted. Sample informants were selected through purposive sampling. Three regions, three special education unit and one parent of each child were included in the sample. The findings indicate, prior to the intervention that all children experienced severe deficits in independent functioning skills and other adaptive behavioral characteristics. Since the intervention, however, they have made substantial improvements in many of the adaptive behavior aspects mainly in independent functioning, physical development and social maturity. In general, the children's performances show progress and difference by level of retardation. To this end, both parents and teachers' understanding seems to deserve desirable attention of he government. The adapted behavior scale appeared reliable and employable.

It is believed that the document and the adapted behavior scale can serve as a resource material and working document for special educators and others.

CHAPTER ONE

1. INTRODUCTION

Assessment of individual children's needs and potential abilities with appropriate instrument, technical procedure, at a proper time has central importance for the over all well -being of children. In most developed countries, the assessment of children's needs and potential abilities is practiced during the period of early child development (0- 6 years). This enables parents, teachers and other professionals, concerned with childcare or rehabilitation to:

1. identify the children's needs and potential abilities as early as possible;
2. establish whether the children qualify for special education, other social Services and whether it is related with handicap,
3. plan individuals education program (IEP); and
4. monitor and evaluate the effectiveness of the program on the basis of the set objectives and adjust the provision required accordingly.

Exploring their level of behavior manifestation can do the assessment of children's needs and potential abilities and performances in various activities expected of their age and culture through developmental milestones - norm referenced or criterion referenced tests and formulated techniques.

As regards the need of identification procedure or technique and the deficiency of special education services in Ethiopia, especially in the area of mental retardation, Adugna (1991) reported that it is partly the lack of adequately formulated techniques or procedures of identification. Identification is based on some observable developmental milestones and physical features. Nema (1996) in his survey research report on the enrollment of the children with mental retardation in Ethiopia also noted that lack of formulated identification techniques and appropriate instruments made the problem twofold.

In the Ethiopian context, despite encouraging advances made during the past decades, the country could not offer equal opportunities for all its citizens. Only very few of the disabled children in Ethiopia have got the opportunity or access to school, or appropriate education. The case seems more severe for the mentally retarded population. Particularly, the education for children with mental retardation seems to be at its early stage of development. All the activities related to mental retardation and retarded persons, like education, awareness programs, advocacy services, organizations/associations and development of the identification instruments are not yet brought to the attention of the society. However, this doesn't mean that there is no any good start at all. Some encouraging efforts are being made at least in the education sector. The Education and Training Policy of the Federal Democratic Republic of Ethiopia (April 1994) gave special attention to the education and training of people with special education needs. To this end, training in special education at the Masters of Arts Degree program in Addis Ababa University is one of the most important measures taken and practical aspects of the point under discussion.

This study attempts to investigate the basic behavioral characteristics of children with mental retardation and determine them so as to serve as screening criteria for the purpose of intervention /educational and social services. It also attempts to adapt some sort of adaptive behavior scale that could help special educators in screening and qualifying children with mental retardation for appropriate intervention.

The report of the study consists of six main parts. Introduction (background of the study, statement of the problem, objectives, significance, delimitation, and operational definition), literature review, the research design and methodology (the sampling procedure, instrumentation, data collection and analysis), the findings and discussion, summary and conclusion, as well as reference and appendices. The researcher conveniently and interchangeably uses in the report, terms such as "educable" and "mildly retarded" and "trainable" and "moderately retarded".

1.1 Background of the Study

People are born with different level of intellectual abilities. Some are born with extreme abilities either gifted or retarded. Others are born with average intelligence, falling in the range of normal distribution between ±1 standard deviation. Still there are differences among the members of the same category, like mental retardation. The difference may be attributed to the different etiological factors, which could possibly involve the organic and environmental deprivation (McLaughlin et al. 1996).

In determining one's mental retardation, the traditional definitions of mental retardation generally focus on the dominant role of the individuals' intellectual ability (IQ). On the other hand, the current definitions give more weight to the individual's adaptive behavior skill competence (see page 17 of the report).

Assessment of individual's needs or limitations has vital importance for the arrangement of appropriate intervention program through the provision of the respective support or service. It is from this point of view that people like A. Binet and L. Terman published the first Intelligence Test which lent itself to the historical first landmarks in assessment in special education (Venn, 1994). After a while, people recognized that the IQ test lacks a pertinent characteristic quality, i.e. the adaptive behavior aspects. They justified the incompetence of the test to identify the existence of mental retardation, in the absence of consideration of adaptive behavior skills. This led to the understanding of the considerable influence of adaptive behavior skills of an individual on his/her general aptitude ability. It has served as an impetus to bring about abrupt change in the minds of the proponents of intelligence test, activating the reconsideration of adaptive behavior on the aptitude tests and development of assessment instruments. This in turn led various intellectuals from different fields like Psychology, medicine, special education etc. to develop different types of assessment. Persons like, Dunn L.M. (1935) as cited in Venn J. (1994), Sparrow Balla and Ceicchette (1984) in American Journal (1997), Grossman (1983) in Heward et al., (1988) and others continued with the effort to develop a better test.

The importance of assessment and identification of the limitation, mainly in the area of adaptive behavior skills competency in independent functioning of daily living skills, language development, economic activity, functional academics, socialization and etc. has been underlined by various persons and associations, like Drew et al, (1984), Grossman (1983, and AAMR (1983), as cited in Heward et al, (1988), Kirk et al, (1993) McLaughlin et.al, (1996). In Ethiopia level of service for the handicapped is at its minimum. Most of the institutions are crowded, understaffed, and ill equipped. The need for professional and technical backup supports is strongly felt by almost all of the institutions in Ethiopia (Tirussew 1991).

Although encouraging efforts have been made, there is still a lot of task, which seeks urgent response both from the government and the society. Promotion of awareness to parents of the retarded children and the society at large, in an well-organized and facilitated manner and the development of screening /identifying instruments are few of them. There is no formulated technique and procedure or instruments like aptitude test developed or adapted according to the Ethiopian context. The society in general and most, if not all families of children under consideration in particular, do not know what and how to deal with the problems of mental retardation and children with mental retardation. This in turn blocks the means of arranging appropriate intervention program or services at the right time accordingly. By the very fact that people are born with different level of intellectual ability and brought up in different environments with different level of stimulation, there comes the difference/ variation in need, among individuals. Usually in most cases, children with mental retardation are identified after they enter formal school (age 5-18), and fail to cope with learning the abstract skills. Drew et al, and (l984), Heward et al, (1988), Gearheart et al, (1988) also stated that educable mentally retarded individuals are referred to evaluation when they lack progress in academic areas and inability to learn when taught the same manner as other students in the classroom.

Assessment of the abilities of a person to identify his/her needs, strength, and weakness or limitation is believed to serve as a stepping stone to meet the needs of the individual accordingly. It helps to arrange appropriate intervention programs through the provision of the appropriate support services to avert the condition.

It is from this point of view, that people from different disciplines like Psychology, medicine, special education Grossman, 1983) and others made continuous effort, to solve the problem of identification of retarded persons and arrangement of proper intervention program for the mentally retarded persons. American Association on Mental Deficiency (AAMD), which was established in 1959 as well as others also made similar effort. Since there was always a need for scientific screening mechanisms the association gave due regard to the point under discussion. Along this line, it has accredited the various tests like, Adaptive Behavior Inventory For Children (ABIC), Adaptive Behavior Scale (ABS), and Adaptive Behavior Scale for School Edition (ABSSE) etc. developed for the purpose of screening and identifying the ability and potential of the individuals with mental retardation. AAMR and dedicated researchers continued to improve and up-date the tests by considering important variables like that of adaptive behavioral characteristics and others.

1.2. Statement of the Problem

The basic tenet of assessment in special education is to identify the abilities of children and fulfill the goals of effective educational intervention service accordingly. In this regard, special educators have to know and internalize the why, how, where and when aspects of assessment that would enable them to properly identify the problem, plan and act on the problem through appropriate and effective intervention. In connection to this subject, mentally retarded children in Ethiopia did not get the due attention. The very concept of mental retardation or having birth to a mentally retarded child in traditional Ethiopia have been strongly attached with social stigma. It resulted in isolation and frustration on the part of the families of the retarded person. It was only since 1988

that the official introduction of the education for the mentally retarded persons to the Ethiopian education system has been stressed (Department of Teacher Education-DTE,MOE). Attention was given to the,

⇨ Orientation and training of teachers,

⇨ Development of curricular materials and

⇨ Opening of special education units in the regular, government primary schools as well as promotion of awareness about the condition to the society at large. Nevertheless, these are only good beginnings. There is a lot of work awaiting and calling upon the concerned intellectuals. Identification of the problem and lack of awareness are some of the most serious problems of the time, particularly for the retarded children, their parents and teachers. Moreover, due to lack of the identification instruments and techniques as well as presence of social stigma attached to the condition, for instance:

⇨ Non-retarded children with some other problems may be wrongly labeled to the retarded group,

⇨ Retarded children and their families may suffer from psychosocial problem,

⇨ The parents and teachers may not know how to handle the retarded children so as to meet the needs properly,

⇨ Curriculum developers and other educators concerned with the education and other social service designed for persons with mental retardation may not be able to address the required demand of service.

Thus, bearing this in mind, the statement of the problem basically focuses on:

⇨ The identification and determination of what the primary adaptive behavioral characteristics of the educable and trainable mentally retarded children are,

⇨ The identification of what possible mechanisms for screening mentally retarded children could be used and

⇨ The identification of what the understanding of the parents and teachers of the children with mental retardation, about mental retardation and adaptive behavior of their children is.

1.3 Objectives of the Study

1.3.1 General Objectives.

The general objectives of this study are to, Identify and determine the primary adaptive and maladaptive behavioral, characteristics of the children with mental retardation, (educable and trainable children); examine the understandings of parents and teachers about the condition and their children under discussion; and produce an adaptive behavior scale that would serve special educators for screening the needs of children with mental retardation.

3.2 Specific Objectives

The specific objectives are to:

1. Identify the primary adaptive behavioral characteristics of retarded children.
2. Identify the level of performance of the children under discussion in adaptive behavior skills.
3. Examine and determine the understandings of the parents and teachers of the retarded children about the condition and handling of their retarded children as well as their potential abilities,
4. Lay the ground for the development of Ethiopian adaptive behavior scale for the children with mental retardation and others, and
5. Provide possible practical recommendations to special educators, curriculum developers, planners, teachers, parents, and researchers.

1.4 Research Questions

Hoping the research findings that are related to each research question would likely advance the knowledge and understanding of educators, curriculum developers, parents and researchers about the issue related with the topic and improve the educational practices, the following research questions are stated.

1. What are the behavioral characteristics of the children with mental retardation in the
   adaptive behavior skill areas under consideration?
2. Do children perform differently in different domains of adaptive behavior? Or do their performances cohere with the teachers' assumption/ labeling?
3. What do the parents and teachers of the children understand about mental retardation and adaptive behavioral characteristics of the retarded children?
4. Do the instruments that are prepared and adapted serve the purpose of screening the needs and behavioral characteristics of children with mental retardation, and determining the level of mental retardation as well?

1.5 Significance of the Study

What the philosophy and theory of special education state to be implemented are not well practiced in the Ethiopian culture. The society in general and the families of the mentally retarded persons in particular are not well acquainted with what special education and mental retardation are; how to properly identify and handle their children with mental retardation. Retarded individuals have been deprived of their right to get proper attention in education and other socioeconomic affairs and they have suffered a lot from the social stigma attached with mental retardation and from the impacts of lack of awareness by the society. For instance the researcher's note from a workshop coordinated by SOOM in 1998 at the Addis Ababa Technical School indicates the parents' report on the related issues. It reads as follow.

> Our children are neglected of their right, even to move freely in their community; let alone the peers, the adults themselves do consider our children as jesters. On the other hand some parents of the non-retarded children consider them as wild animals and avoid them not to join with their children.

The absence of identification instrument and the lack of understanding of mental retardation as well as that of adaptive behavioral characteristics of the children by the parents, highly limit the early identification and arrangement of the possible services for the children according to their need. This in turn prohibits the opportunity of enabling the children to help them to the maximum potential possible. Therefore, a research study directed toward such topic is hoped to deserve significance, because it could contribute for the solution of the currently existing problems mentioned.

1.6 Delimitation and Limitation of the Study

The nature of the topic and area as well as the method of the study seem to be broad and comprehensive which demands a lot of time, budget, facilities, material and trained human power. During the planning stage, although not to the demand of the study, attention was given to the respective variables. Hence, the scope of the study was delimited to include all four regions, which promote special education for the respective children. Therefore, the scope of the study was planned to involve Oromiya Region, Southern Nations Nationalities and Peoples and Amhara Regions, Addis Ababa City Government and four Special Education Units, one from each region. The research is limited to government primary schools, which has special education unit for the children under consideration. However, the long delay of the budget release from the Post Graduate School's Office and the AAU finance office forced the researcher to reduce the sample size and sites as well as change some sites due to time and financial factors. Therefore, the research was limited to Addis Ababa, Amhara and Oromiya Regions (Yekatit 23rd Primary School, Zereayacob and Hermata Primary Schools).

1.7 Operational Definitions of Terms

Assessment in special education refers to the process of gathering data for the purpose of educational decision.

Adaptive behavior refers to the effectiveness and degree to which an individual meets the standards of self sufficiency and social responsibilities set for his or her age related cultural group by the community she/he is living in.

Mental retardation refers to a developmental delay, which involves significant deficits in both intellectual functioning and adaptive behavioral characteristics.

Educable Mentally Retarded /Mildly retarded/ child refers to a person with slight deviation below the normal range of intelligence and adaptive behavior.

Trainable Mentally retarded/Moderately Retarded child/ refers to one who may have some physical/motor deficit or developmental delay, could be able to cope with functional academic skills and independent competency in daily living skills with some supervision by others.

CHAPTER TWO

2. LITERATURE REVIEW

The main intention of entertaining this part is to have an overview of what has been done in the area related to the topic. Hence, a brief review of the history, definition, etiology, classification and prevention of mental retardation prior to the entertainment of adaptive behavior is believed to serve as a bridge in stepping into the main issue under consideration topic. Bearing this in mind, this part therefor, deals with the historical background, the concept of mental retardation, etiology, classification, adaptive behavior, identification and profile of children with mental retardation, and intervention strategies.

2.1. History of Mental Retardation

Historically, mental retardation has existed in all societies and socioeconomic strata irrespective of race and sex throughout human history. In fact it is with diverse conceptualization, varying views or attitudes and philosophy as well as characteristics according to the level of understanding and development of the knowledge and socioeconomic status of the society. The recorded history of mental retardation shows that the Greeks in 1552 BC and the Romans in 449 BC were among the first, to officially recognize people as mentally retarded (Heward et.al, 1988). Anthropological studies also generated evidences of mental retardation substantially pre-dating that of the Greeks and the Romans (Drew et.al, 1984). These authors further strengthened the information by citing the discovery of human skulls dating to the stone age, which indicate the crude surgical operations that had been performed during that time.

Since then, persons with mental retardation have experienced the hazardous effects of social stigma attached to mental retardation. In the primitive society, where the societies' knowledge about mental retardation and persons with mental retardation was at the minimum, mental and physical defects were viewed by the primitive nomadic

tribes with fear and disgrace, largely because of the social stigma attached to such conditions by superstitions and myths. As society separate into levels ridicules of the mentally retarded people was common, superstition and myths developed, derogative words like idiot, imbecile and dunce were used. Giving birth to a child with mental retardation was viewed as a punishment from God for the parents' evil deeds or so. There was also economic influence on the people with mental retardation. For instance the unproductive members of the primitive society like the sick, physical and mental defects were abandoned, or sometimes even killed, because they were sharing the minimum what they have to eat, contributing nothing for the attainment of the survival of the social group. In this regard, the people (the Greeks and the Romans often used to send the mentally and physically defectives to places faraway from the community, where they would perish by their own (Heward et al, 1988).

During the middle age, as religion became a dominant force, society's level of understanding of the condition and attitude towards persons with retardation has relatively been changed. More humanitarian views and positive attitudes were developed; asylums and monasteries were erected to care for the mentally retarded persons (Heward et al, 1988).

Itard's effort to train the wild boy of Aveyron happened to be the noticeable turning point to change the attitude of people towards the possibility of training the retarded persons' and understanding of the possible potential they have. In this regard Samuel Gradly Howe in Heward et al, (1988) also devoted much of his life to the education of the handicapped persons.

Gearheart and Gearheart (1975) in Heward et al., (1988) characterized the history of mental retardation before 1800s, as consisting primarily of superstition and extermination. The 19th century, as the era that produced institutions for mentally retarded persons and the 20th century, as the era of legislation and national support, as well as the 1970s as the era of normalization, child advocacy and litigation.

However, since the beginning of the 20th century, the efforts made to open public school classes for the mentally retarded children and promotion of better awareness among the society led to the beginning of special class movement. This resulted in the growth and development of special education and enrollment rate of the mentally retarded children (Heward et al.,1988). In the same document what this group of authors further reported in education and care of mentally retarded children, reads as follow:

> Today, we are witnessing a move away from total reliance on the large state institutions and the self contained special education class to the trend towards more normalized community based facilities and education in the regular classroom for significant number of mentally retarded children.

As far as the researcher's work experience and the information from his field notes is concerned historically, mental retardation in the Ethiopian context has passed through similar pattern of development as has been discussed earlier. For instance, in its earliest stage of development people used to view mental retardation or having birth to a child with mental retardation as a punishment from God for the evil deeds of the individual, or his/her parents or ancestors. During this period, superstitions and myths were developed; ridicules of mentally retarded persons were common. Derogative words like, "Deddeb, Kewus, Jil, Kil, Mogn, Nehulala and etc." which literally mean idiot, imbecile, dunce, fool were used. More over, a strong negative attitude was attached to giving birth to a child with disability, particularly with mental retardation.

Indeed, it has been a source of painful feeling, which has been reflected in isolation of the parents and siblings of the retarded child as well as hiding the child with retardation from the community they live in. The family unit had to suffer a lot from the social stigma vested upon them and their children and the economic problems that have direct relation with caring for the child under consideration. In fear of the social stigma attached to the condition, parents and siblings of the retarded child some times were involving themselves in the rejection, disguising and hiding the child behind doors. Later on, the development of religion and modern education as well as the influence of international relations enhanced the attitudinal change among the society. This can be considered as the second stage of development. With the introduction of the religious donor agents

like, Mekaneysus church, the Brothers' and Sisters' Home etc., the awareness of some parents and families who got the exposure increased. As a result there appeared some change in the attitude and philosophy of some people. Such people at least started to view the condition and the problems attached to it, from the religious point of regard and sympathize for the retarded persons as well as their families. Considering the hardship of managing such problem under the impoverished condition, some philanthropists and persons started to give alms and some other material supports to the retarded children and their families. The awareness such family got could influence some parents and families to accept the condition as it is. This also gave some way to avert the condition through opening of institutions that care for the retarded children, because the intervention programs (educational, Psychological, social, economic) arranged by the institutions helped the children to adapt independent living skills in their possible restrictive environment. In this regard, the "Kassanchiz and Mekanissa Schools for the Forgotten", started in Addis Ababa, in 1986 by Mekaneyesus church would be worth mentioning.

The third stage of development in the area under discussion started from the late 1988, with the conduction of a workshop on the development of curriculum for training teachers of mentally handicapped children organized by the department of teachers education, ministry of education-(DTE-MOE, 1991).

> The Education and Training Policy of the Federal Democratic Republic Government of Ethiopia (1994) article 3.2.9 states that special education and training will be provided for people with special needs. The Federal Negarit Gazeta (1995) article 37, under the rights of children, also noted that "when taking any measure related to children, any governmental or non governmental institutions or charity organizations, courts, administrative authorities or legislative organs/bodies should give primary attention to the well being and safety of the children".

By implication this would mean that all children with the disability have the right to be equally treated in all spheres of life, like getting appropriate education, hospitalization,

participation and etc. as other children without disability. At this stage, some encouraging efforts are being made. To mention some:

- ⇨ Orientation given to some primary school teachers for about 3-6 months on theoretical concepts of mental retardation and proper handling of the children with mental retardation,
- ⇨ Enrollment of some children under consideration,
- ⇨ Erecting a training center for special educators at certificate and first degree levels,
- ⇨ Starting training program for special educators at MA level etc.

Moreover, some curricular materials like the teachers' manual on proper handling and training the children with mental retardation and on cognitive development have been prepared based on the need assessment survey on the enrollment of the children with mental retardation. Various workshops were also conducted to promote awareness about the point under consideration to the respective people (teachers, parents/care takers, and educational personnel of various levels and etc) from different regions. Since 1995, four regions (Addis Ababa, City Government, Amhara, Oromiya and Southern Nations, Nationality and Peoples Regions) have stared special education programs for the children with mental retardation.

There are about 20 Special Education Units attached with regular government primary schools ran by government and two special schools ran by Mekaneyesus church, all promoting education and training to the children with mental retardation. To make a point here, the writer of this paper feels that the children and the family who got the opportunity for the education and training are only a few from the possibly large population.

2. 2 The Concept of Mental Retardation

The concept of mental retardation has been viewed differently by different people at different time and place for various reasons. In view of this, mental retardation has been defined differently by various people at different time with various views, attitude conceptualization and philosophy. For instance, Ireland (1900) in Kauffman et al, (1993) referred idiocy to mental deficiency or extreme stupidity depending upon malnutrition or disease the nervous center occurring either before birth or before evolution of mental faculties in child hood. Tredgold (1937), as cited in Heward et. al., (1988:84) and in Smith et al., (1994:63) also refer mental retardation to a state of incomplete development of such a kind and degree that individual is incapable of adapting himself to the normal environment of his fellows in such way to maintain existence independently of supervision, control or external support.

Doll (1941) in Smith et al., (1994:63) and Hallahan et al., (1988:44), wrote six criteria to define the concept of mental retardation as a basic:

- ⇨ Social incompetence
- ⇨ Due to sub- normality
- ⇨ Developmentally arrested
- ⇨ Obtains maturity
- ⇨ Constitutional origin
- ⇨ Essentially incurable

Heber (1961a; 1961b), as cited in Dunn (1963:54) and the American Association on mental deficiency- AAMD (1961) In Heward et el, (1988) refer mental retardation to subaverage general intellectual functioning which originates during the developmental period, and is associated with impairments in adaptive behavior.

Grossman (1983) AAMR (1983), in Heward et al., (1988) and William (1991), Kirk et al., (1993), refer mental retardation to significantly sub-average general intellectual

functioning, existing concurrently with deficits in adaptive behavior and manifested during the developmental period before age 18.

The American Association on Mentally Retardation (AAMR), of the 1992 Revised Version of the definition reads:

Mental retardation refers to substantial limitation in present functioning; characterized by sub average intellectual functioning, existing concurrently with limitations in two or more of the following adaptive behavior skills areas:

- ⇨ Communication,
- ⇨ Self care
- ⇨ Home living
- ⇨ Social skills
- ⇨ Community use
- ⇨ Self direction
- ⇨ Health and safety
- ⇨ Functional academics
- ⇨ Leisure and work and manifest before age 18. McLaughlin (1996) also agrees with the definition provided by AAMR (1992).

Ysseldyke and Algozzine (1995) defined mental retardation as significantly sub average general intellectual functioning that exists concurrently with deficits in adaptive behavior and manifests itself during the developmental period and adversely affects the individuals educational performance.

From the given definitions it is possible to understand that:

a) early definitions (especially before 1970s) were based primarily on below average IQ scores as the main indicator of mental retardation,

b) most of the definitions mean almost the same thing. That is they underline the cognitive and non-cognitive functioning abilities of the individual and the manifestation period. The current definitions mainly emphasize the individual's

competence in adaptive skills and give more weight to the adaptive behavior aspects than intelligence ability alone. Because, intelligence alone is an insufficient basis for identifying mental retardation; the individual must also demonstrate limited adaptive skills in key areas (Henley et.al.1996). Anyway, the AAMR's current definition seems to solve or at least minimize the controversy that has existed for generations among different authors in the definition of mental retardation. Now most authors seem to narrow the controversy that used to exist, by reaching agreement with the AAMR's (1992) definition of mental retardation just to mention some, Kirk et al., (1993); smith et al., (1994), Ysseldyke and Algozzine(1995). However, the understandings of most parents of the children with mental retardation about the condition and proper handling techniques of their children seem doubtful, especially in the Ethiopian context. In this regard, Nema (1996) noted that the parents of the children with mental retardation reported that they do not have clear perception about the concept and the scientific handling of their children under discussion.

2.3. Etiology of Mental Retardation

According to the information obtained from researches so far, although it seems that there are a variety of possibilities that cause mental retardation, it is only 15 - 20% of the condition have known cause. The other 80 - 85% of mental retardation have no clearly identified etiology, except assuming to have connection with the environments in which the individuals are living. Henley et al., (1996) stated that intellectual and adaptive behavior deficits can be caused by a variety of factors and only rarely is any one of them singled out as the cause of mental retardation.

Tirussew (1998) on his part reported that 58% of his respondents indicated that the causes of mental retardation are not identified.

According to Heward et al, (1988) McLaughlin et al, (1996) and Henley et al, (1996), there are about two groups of causes for mental retardation, organic and environmental deprivation. In other words they are:

a. Causes which are not related to organic pathology, no brain damage or any other physical problems called cultural familiar - environmental influences which may constitutes about 80 - 85% of the total population of mentally retarded.

b. The causes, which are directly or indirectly related to organic damage, that involves 15 to 20% of the whole population of the retarded. According to Kirk et al, (1986) these causative factors include:

⇨ Infections and intoxication which involves factors like rubella, syphilis, 'taxsoplasmosis; herpes, simplex; bacteria infections; viral infections; parasitic infections; drugs, poisons, smoking, caffeine, alcohol, lead etc.

⇨ Trauma and physical agents which include anoxia, irradiation, trauma etc.

⇨ Metabolism or Nutrition that involve factors like lipid storage diseases; Tay - Sachs disease; hurlers and hunter's and carbohydrate disorders; galactosomia, hypoglycomia, endocrine disorders: hypothyrodism, aminoacid disorders, phynlketunoria and others.

⇨ Gross brain disease that includes neurofibro - matosis, sturge-weber Syndrome, tuberous sclerosis etc.

⇨ Unknown prenatal influence that involves anencephaly, microcephally, Apert's syndrome hydro- cephalus etc

⇨ Chromosomal abnormality - which includes chromosomal aberration, dominant gene disorders: neuro-fibromatosis, tuberous sclerosis, sturge Weber Syndrome

⇨ Autosomal recessive gene disorders: phynlketunoria, congenital hypothyroidism, maple Syrup urine disease, Tay -Sachs disease.

⇨ Gestation disorders that consists pre-maturity, post-maturity and low birth-weight cases, and

⇨ Psychiatric disorders that involve psychosis cases.

⇨ Environmental influences which consist of psychosocial cases, disadvantaged and sensory deprivations.

2.4. Classification of Mental Retardation

There has been more or less similar variation in the classification of mental retardation to that of its definition among scholars. Currently, although the trend of classification for the sake of labeling is being discouraged, most scholars, associations or organizations classify it into four categories, (Terman - 1916, Weschler 1958, AAMD 1973, 1977 & 1983 + and the American Psychologists' Association, 1980). Some others divide the level into three, Gearheart and Gearheart (1988, Kirk et al, 1986), and still others classify mental retardation into five (Dunn et al, 1983, and AAMD, 1961). For the details see the table below.

Table I - Level of Retardation along Measurement by Authors

Name of Authors	LEVEL OF RETARDATION ALONG IQ MEASUREMENT				
	Boarder line /Dull Normal/	Mild/Educable	Moderate/ Trainable	Severe	Profound/ custodial
AAMR (1961)	68-83	52-67	36-51	20-35	Below 19
Dunn	70-84	55-69	40-54	25-39	Below 25
AAMR (1983)	-	52-67	36-51	20-35	Below 19
APA	-	50-70	35-49	20-34	Below 20
WHO	-	50-65	35-50	25-35	Below 25
Drew etal	75-80/90	50-75/80	20-49		Below 20
Heward etal	-	50-55-70-75	35-40-50-55	20-25-35-40	Below 20-25
Kauffman etal	-	50-55-70-75	35-40-50-55	20-25-35-40	Below 20-25
Smith etal	-	50-65	30-49	20-29	Below 20
Terman (1916)	70-79	50-69 Moron	24-49 imbecile	idiot 24/Below	
AAMR (1973)	-	52-67	36-51	20-35	Below 19
Weschler (1958)	70-79	50-69 Moron	30-49	29/Below	
Kirk etal	-	50-55-70	35-40-55		Below 35
Gearheart etal	-	50-55-70-75	20-30-50-55		Below 20-25

N.B. Prepared by the researcher on the basis of the information extracted from various literatures. The figures in the table show the range of IQ measurement referring to different levels of retardation.

2.5. Adaptive Behavior

Adaptive Behavior refers to the effectiveness and degree to which an individual meets standards of self-sufficiency and social responsibilities for his/her age related cultural group. Smith et al., (1994), William P. (1991); Grossman (1983), Heward et.al. (1988) and Kirk et.al.(1986,1993) referred adaptive behavior to the effectiveness or degree with which the individual meets the standards of personal independence and social responsibilities expected of his age and social group. Vergason, Glenn A. (1990), Ysseldyke and Algozzine (1995) also defined adaptive behavior as the behavior that meets the standards of personal independence and social responsibility expected of an individuals age and cultural group. Reschly (1989) in Smith et el, (1994) refers adaptive behavior to the ability to be independent and socially responsible. Gearheart, Weihman and Gearheart (1988) refer adaptive behavior to individual's ability to meet the standards set by the society for his/ her cultural age group. Mcloughlin and Lewis (1981) refer it to the ability to cope with the demands of the environment; includes self-help, communication and social skills. Cohen et.al, (1992) refer adaptive behavior to the effectiveness with which the individual copes with and adjust to, the natural and social demands of his environment. Matarazzo (1972) in Cohen et al., (1992) has outlined the principal facets of the definition of adaptive behavior; and further explained how it consists or compound many aspects of behavior as follows.

a. The degree to which an individual is able to function and maintain himself.

b. The degree to which the individual satisfies the culturally imposed demands of personal and social responsibilities was suggested to be some components. It is a composite of many aspects of behavior (subsumed under the designation intellectual, affective, motivational, social motor and other non-cognitive elements that all contributes to and is a part of total adaptation to the environment.).

With regard to the deficits in adaptive behavior, research shows that there is no significant difference in physical appearance between the educable mentally retarded and non-retarded children. In line to this Drew et al., (1984:258) referring to the works of Hardman and Drew

(1977) state that there is positive correlation between severity of intellectual deficit, and degree of physical anomalies. The more severe the deficit is the higher degree of physical anomalies there will be. Hence since the retardation of educable mentally retarded is not mostly connected with genetic and organic factors, there may be no noticeable difference between educable retarded and non-retarded children. However, the motor development of non-retarded children is found to be superior to both mildly and moderately retarded children and the performance of moderately retarded children was inferior to those of the mildly retarded children (Bruininks 1977, in Drew et al, 1986:258).

Kirk et al, (1986) on their part noted that moderately retarded/ trainable children exhibit coordination and fine motor skill problem due to their experience of some form of central nervous system damage. They appear to be awkward and clumsy and to walk with a stiff, robot like gait.

The other common adaptive behavior deficit exhibited by the mentally retarded children is speech and language (communication). In line to this, McLaughlin (1996) referring to Macmillan (1982) stated that speech and language deficiencies occur in a significantly greater frequency among learners with mild to moderate mental retardation than might be expected in the general population. This may be due to the attribution of more individuals with moderate mental retardation may have associated physical problems that adversely affect their ability to produce clear speech. Individuals with mild mental retardation who came from lower economic groups may not be exposed to as many good role models. This could also be due to poor cultural and environmental factors.

Patton et al, (1996) also explained cognitive ability and language development to be linked and a decrease in cognitive ability may lead to language deficits. Elaborating the language deficit of the mentally retarded children and the influence of the problem on cognitive and non-cognitive functioning of the respective children. Kirk et al., (1986) also noted that children with mental retardation have a general language deficit and specific problem in using interpretive/expressive language. These problems shatter their development in cognitive and adaptive areas.

Capability of mastering the personal and social skills is a pre-requisite for one's successful integration into the community and other social environment. In view of this, Margaret (1993) as cited in McLaughlin (1996), reported that students with mild to moderate mental retardation often have deficits in social skills and these deficits can severely affect their successful integration into both the community and other school environments.

Kirk et al, (1986) on their part reported that retarded children show special problems in personal and social characteristics that are in part related to the reactions of others to their conditions and to a history of failing to reach the level of performance expected by others (community). In other words, the possible major influence on the social behavior of the retarded children may stem from the possible brain damage they have and the nature of environment they find themselves. warm parental or family atmosphere encourages young children to develop positive self-esteem. A study conducted by Cooper Smith (1967) as cited in Drew et al, (1984) on the development of self-esteem of young children indicated that a high level of self-esteem seems to be related to a high level of stimulation, activity, and vigor in the family. Children who are made to feel that they are significant to their parents/families tend to develop high self-esteem. Such feelings can be conveyed by parental attention and concerns as well as by restrictions imposed regarding behavioral limits (Cooper Smith in Drew et al, 1984). On the contrary lack of stimulation and warm relationship among the

family members may lead the child to develop poor self-esteem. This in turn may worsen the condition.

Regarding the factors that interfere with the relationship between the retarded children and their parents as well as teachers, in the Ethiopian context, Sahle (1996) reported that the behavioral problems shown by the mentally retarded children hinders the relation with their parents, teachers and peers.

The ability to take care of one's own self or personal needs is a vital component of independent living. For individuals with mild to moderate mental retardation, deficits in caring for these needs are evident. Literatures reveal that children with mental retardation have difficulties in the self-care skills and other components of independent living.

With regard to this Sahle (1996) also reported that the mentally retarded children's ability in self-help skill areas, particularly in taking baths, brushing tooth and combing hair is low. Burnham (1992) and Langone (1990) as cited in McLaughlin et al., (1996), a person's worth both in his/her own conception and in the perception of others, is often judged by his/her ability to earn a living. Because of the status that the society placed on work, it is important for individuals with mild to moderate retardation /cognitive disabilities to enhance and increase their status by finding and maintaining employment.

2.6 Identification and Profile of the Children with Mental Retardation

Human development is a process, which involves various stages of development. Each stages of development require specific developmental characteristics that are considered as normative milestone for the respective stage of development. For instance, at the age of one year, a normal child is expected to:

⇨ Babble one to two words

- ⇨ Sits straight independently
- ⇨ Stand independently, crawls on hands and knees
- ⇨ Feeds self with fingers
- ⇨ Nods head for no responses
- ⇨ Imitates adults/elders etc. (Mussen, et al, 1990)

The absence of such age related developmental characteristic behaviors from the respective stage of development of a child could be used at least as symptom to suspect a developmental delay or mental retardation in the given child. In other words, to identify whether one has mental retardation or developmental delay attention has to be given to:

- ⇨ Observation and assessment of adaptive behavioral characteristics of the child or his/her personal, social, academic, physical, language and etc. activities across his/her age with reference to his/her non-retarded age mates and cultural group.

- ⇨ Measure the child's cognitive ability (IQ), if not possible, measure the maladaptive behaviors of the child. If the result indicates that he/ she failed to meet the required expectation, it may be said that further assessment and or arrangement of appropriate intervention is required. Before directly stepping into the intervention, one has to know the profile of the individual child, which can be done during the process of identification, assessment of the problem and potential ability of the child.

In general, children with developmental delays reach the developmental mile stone in a similar pattern, to that of the non- delayed children, but at a lower rate. As a rough estimate, a mildly retarded child develops one half to three third of a

non-retarded peers. The moderately retarded child develops one fourth to one half of the non- retarded age mates particularly in cognitive aspects.

According to Guralnick (1995) it is possible to see substantial developmental change among the vast majority of these children including walking and language during the early developmental periods, primarily early childhood.

There is individual difference among the members of mentally retarded children. There is also clear difference between the developmental profile of the mildly and moderately or more severely retarded children. This can be seen in terms of physical, social and cognitive aspects as shown in table 2.

Table 2 Profile of the Children with Mental Retardation

Profile	Educable	Trainable
1. Physical development profile	⇨ Do not markedly differ from the non-delayed age mates. ⇨ They may be average in visual, hearing and mobility ⇨ Their physical appearance does not make them differentiate from the non-delayed or retarded peers. ⇨ Usually are not identifiable entering schools.	⇨ Do markedly differ from their non- retarded mildly retarded peers. ⇨ May have minor vision or hearing and mobility problems. ⇨ Their physical appearance may make them easily differentiate from non retarded children of their age group. E.g. His/her facial features can easily identify Down Syndrome child. ⇨ Demonstrate clear cut diagnostic criteria
2. Social profile	⇨ May have interpersonal relationship problem or social interaction Problem. ⇨ May have subtle health problem ⇨ May have developmental delays in language (expressive and or receptive)and Communication social skills self care etc	⇨Their physical appearance like in the case of Down Syndrome and the deficits they have may left them unacceptable by their non- retarded peers ⇨They have obvious health complication ⇨They have developmental disabilities in the area of language, speech or communication, self care Social skills etc. requiring others' supervision
3. Cognitive/ Academic areas	⇨ Have difficulties in academic areas, like in learning abstract concepts, transfer and generalization of learning ⇨ Falls between IQ 75-50 and or ABS 75-50 percentile	⇨ Have deficits in academic areas, reading, writing, and arithmetic. ⇨ Have severe problem in transfer of learning and generalization. ⇨ Fall between IQ. 50_35 and or ABS percentile below 50.

<u>**N.B**</u> Prepared by the researcher on the basis of information extracted from various notes and handouts on children with mental retardation.

CHAPTER THREE

3. RESERACH DESIGN AND MENTHODOLOGY

Well-designed and explicitly stated method of research is a systematic runway to the effective and successful accomplishment of the study in general, data collection and analysis in particular. Henceforth, efforts were made to employ appropriate methods, site selection, identification of the target group /population, the sampling procedure and the instrumentation, data collection and data processing or analysis techniques.

3.1 Design of the Study

The study was conducted in government primary schools, which have special education units for children with mental retardation. Three years back, there were 13 special education units attached to the regular government schools and two special schools run by MekaneYesus Church with a total student population of 335 (199 Male and 137 Female) Nema (1966: 9). The schools vary in organization and facility as well as in experience. Currently they are about twenty.

The children in view have diversified characteristics emanated from the impact of their level of retardation. For instance the cognitive and non-cognitive deficits they have interfere the easy communication with others. This serves the researcher in formulating an appropriate design of study that would enable to secure the necessary information. Thus a design based on ecosystem theory, that deals with holistic employed, hoping that it would provide enough room for obtaining the possible relevant approach was information from the respondents at least at micro and mesosystem level starting from the inner most cell (family), peers (neighbor) and then from broader surrounding (school envronment). For example,

⇨ Observation of the home environment and participation of the target children, casual conversation with the family members like siblings, as well as neighbors (friends).

⇨ Interview and discussion with children's parents or caretakers.

⇨ Formal observation of the children at school environment and interview with teachers of the retarded children and

3.2 Method of the Study

3.2.1. Sampling Procedure

The general method of study employed was qualitative complemented with quantitative approach. With regard to sampling, purposive sampling was used. It is mainly because of the characteristics of the target group and related factors. For instance, these children are expected or assumed to have language or communication problem and attention deficit. Sometimes, they may be depressed and resist interaction with others. Such problems may block or minimize the probability of obtaining the required data, according to the set variables (age, sex, level of retardation and number of years stayed in the school etc. which may be considered as the possible criteria for screening the children under consideration for the respective intervention). The nature of the test and its administration also add to the intensification of the problem, because since it is individually administered, and seeks repeated observation, it requires much time. Thus, attempt was made to give attention to the following aspects.

⇨ size of the sample,

⇨ sample selection

- ⇨ age, sex, level of retardation
- ⇨ representation of the sample in terms of geographic region, the level of retardation at least,
- ⇨ tests administration.

Therefore, to manage the task within the given frame of time and financial budget, considering the special characteristics of the mentally retarded children, the regions mentioned earlier were considered. Three special education units, (Hermata, Zeraycob and Yekatit 23 primary schools) and twelve children from the three regions, 4 from each unit, 2 females and 2 males were selected. One parent or caretaker of each child was interviewed and parents as well as other family members and even friends were considered for the casual or informal conversation. Two of their teachers were considered. Out of the whole sample cases or students, half were educable and half were trainable. The frame of reference for the labeling was the teachers' labeling, which was verified by the study.

With regard to age, the mentally retarded children usually lag behind their peers at least by two years. By implication it means that their developmental readiness lags by minium of two years. Since the conditions were not stimulating - that is people were not found culturally open and expressive, and the retarded children were not sent to school at early age it was difficult to get children of early school age according to the demand of the study. Moreover, it was difficult to deal with them at the current stage of development. Thus, although the researcher planned to consider children of age 9-10 who are equivalent with 7 - 8 years old "normal "children with the school experience of one year, it was not possible to get the required cases. So the reality governed him to extend the range to 10- 13 years old. With regard to language since the intervention is mediated

through the country's official language and all the families speak Amharic very well; the variable was not focused in terms of nationality. Initially it was planned to spend about 120 hrs. on the piloting of the instruments and 1120 hrs. on the actual data collection through observation, interview and casual conversation. But, due to budget and time constraints it was only possible to spend 672 hrs. (56 hrs. for each child).

3.2.2 Instrumentation and Piloting

3.2.2.1 Instrumentation

The researcher attempted to search for locally made or adapted behavior scale for determining the behavioral characteristics of children with mental retardation in the Ethiopian context, but was not successful. Thus, this led the researcher to adapt some adaptive behavior scale for identifying and determining the behavioral characteristics of the children in view, particularly in special education units where educational intervention started for these children.

Since the passage of Public Law 94-142 (U.S.A). a large number of adaptive behavior scales have been published. Adaptive Behavior Scale, the 1975- revised edition is one of the widely used and accepted instruments by many professionals in U.S.A. Originally, the scale had two main categories, the adaptive behavioral characteristic aspects with 10 domains and a total of 66 themes of items. Totally the scale has 110 themes of items. The adaptive behavioral aspects have two types of questions that contain characters to be checked and that of to be scaled.

They involve independent functioning competency of daily living skills, language skills development, economic activity, physical development, academic functioning skills, numbers and time, domestic activity, vocational activity, self-direction, responsibility, and socialization. Where as the other category has only one type of question involving

characters to be scaled. The second category involves violent and destructive behavior, antisocial behavior rebellious behavior, untrustworthy behavior, withdrawal, stereotyped behavior, inappropriate interpersonal manners, unacceptable vocal habits, unacceptable habits, self-abusive behavior, hyperactive tendencies, sexually aberrant behavior, psychological disturbances and use of medication.

With regard to the question of reliability, Psycho-metricians usually give higher emphasis to the validity and reliability of cognitive aspects than to non-cognitive ones Lehmaan and Mehner (1969). On the other hand scholars like Grossman et. al, (1983), Henley et. al, (1996), The Americal Association on Mental Retardation (1992) and others give more weigth to the effictiveness of individuals' adaptablity to his/her living environment. However, McLoughlin et. al (1981) reported that the Adaptive Behavior Scale 1975 has recognizable reliability, but with some hesitations regarding the validity. Therefore the researcher decided to adapt it with strict consideration of improving content validity of the test. Due attention was given to objectivity, language, content appropriateness, clarity and relevance of the test etc. Special consideration was also given to the issues related with cultural, economic, technological and social development of the Ethiopian context. Further regard was given to developing other original supplementary instruments, like semi-structured interview for parent's (02) and for teacher's (03). Due regard was also given to the issues related to the administration of the tests like the tester effect, testing environment and testing conditions etc.

Thus, the adapted scale was translated and validated for its content and prediction by professionals in the field of Psychology, special education and language. Both the scale and the interview questions were commented from the holistic perspective, which involves objectivity, relevance, language clarity and appropriateness. Adaptation of the

scale and development of the supplementary instruments as well as refinement of all were done by the researcher. Two special educators were selected two evaluate the reliability of the scale by rating the relevance, consistency, objectivity, culture fairness, adequacy, language clarity and transparency of the items included and appropriateness of the whole test with three level rating scale, very good (3), good (2), and not good (1). The sum of values for each item and domain under both adaptive and maladaptive categories were calculated out of 100%. Their evaluations indicate that they agreed on 85% adaptive behavior aspects and 75% in maladaptive behavioral aspects. The raters also made general remark on redundancy, culture bound domains and minimizing the number of items etc. Appropriate reconsideration was made. Thus domains such as sexually aberrant behavior were discarded. Special attention was given to the administration of the tests. The supplementary instruments like semi-structured interview for teachers (03) focused on the academic and social environment of the children, and the interview for parents (02) on the background history, behavioral characteristics as well as the potential ability of the retarded children were developed.

3.2.2.2. Piloting of the Instruments

Piloting of instruments has paramount importance for sifting out the difficult, vague and ambiguous items and concepts as well as techniques of test administration. In other words it is one of the best ways of improving the data collection instruments and procedures. Bearing this in mind the researcher piloted the instruments at Kokebetsibah Primary School Special Education Unit and Kazanchez Special Education School in Addis Ababa. Four children and parents (mothers) and two teachers were used as sample data source informants. Half of the informants were taken from each school. Kazanchez Private School was considered by the recommendation of the advisor of the

researcher, so as to enable the researcher see if there could be any relevant attribution of the different setup or environment.

The result of the pilot study was found very helpful for the improvement of both the scale and the interview questions. With regard to the scale, some loaded and redundant questions, vague, culture bound and irrelevant items were found and improved accordingly. It was also possible to clearly observe the limitations in addressing the parent and siblings in an informal way like using casual conversation and adjust accordingly. The other important finding of the piloting was the minimum occurrence of the maladaptive behavioral characteristics in the sample children. It seems that almost all of the items of the second category of the scale were irrelevant to the children. This is so, may be that the causes and types of conditions in different countries with different levels of development vary and attribute for the difference. The original scale is meant for the children with all sorts of mental retardation, while the adapted scale was administered only to the educable and trainable children (according to the expectation of their curriculum and the assumption of their teachers). It is because the children with more severe retardation are supposed to be intervened at home or other institutions with more qualified staff and facilities. So they are not available in special education units in particular. In fact there are children with multiple problems, or having two or more type of disabilities. Cerebralpalsy, ataxia, paraplegia, hemiplegia, epilepsy, autism behavior disorders of various sort are some of the problems observed in some children of the special education units. The first adapted scale was evaluated by the ratings of two special educators with three level rating scale based on objectivity adequacy, relevance, consistency, language clarity, culture fairness and appropriateness. Although the issue of reliability is not the central focus from the non-cognitivists' perespective, the

reseacher attempted to check the inter- raters' correlation. Their agreement level was calculated both for adaptive and maladaptive aspects. It was 85% and 75% respectively. According to McLoughlin et al, (1981), Since 80% and above agreement is said to be reliable the finding seems also reliable. The reliability was also calculated and found to be reliable at r = 0.9 level. Further attempt was made to keep up the reliability of the test administration at the same time. The researcher and his assistants administered the test using the same scale and children but some times separately and mostly together under the same condition. This also showed about 82% agreement in adaptive behavioral aspects and 76% in the mal adaptive aspects.

Considerable difference was observed between the performances of children of the two sample schools. The children from Kazanchiz Special Education School showed better performance in adaptive behavior skills. On the other hand children of Kokebe Tsibah Special Education Unit performed better in academic skills than the other group. The difference seems due to the variation in focus of training and facilities they use.

Paying due attention to the findings of the pilot study and latest information obtained from different angles the researcher revised and improved the adapted scale for final employment. This version of the scale involves 40 themes of items under category one within 10 original domains. The second category involves 25 themes of items within 10 adapted domains. Totally there are 66 items. Each item has 3 - 7 subitems with a maximum value of 3 and minimum of 0 (see appendix 1). The maximum theoretical value for adaptive behaivor was 120. The maladaptive behavioral characteristic category has 14 domains involving 44 themes of items with 4 - 11 sub items. The maximum value was 2 and the minimum was 0. The maximum theoretical value for maladaptive behavioral aspect was 342. With regard to the interview questions,

interview for parents has 15 themes of open-ended items that are improved accordingly. The interview for teachers also has 12 themes of open-ended items. After the final improvement of the instruments the data collection was done.

3.2.2.3 Data Collection Procedure

Data collection is one of the most important variables, which attribute to obtaining relevant information effectively. Data collection in qualitative research requires much time, labor, knowledge, skill and finance. Being cautious of these and related factors the researcher planed and proposed accordingly. But, surprisingly the budget was not released until mid-February, 2000. This forced the researcher to give more emphasis to the Addis Ababa site. Thus, after having the refined data collection instruments, data collections guide and, consent letters were collected and distributed to the respective schools. Data collectors (special educators, who have training and at least 6 years of service in the area) were recruited. The researcher prior to the data collection week gave orientation on the instruments, the guide and on data collection procedure. Preliminary data collection started at Yekatit 23 primary school special education unit of Addis Ababa, just by introducing self and the objective of the study to the schools' administrative staff and the teachers of the children under focus. The establishment of rapport between the data collectors and the informants followed. Keeping the schedule, the actual data collection started in December. It began at the school environment with observation of the children inside classroom and outside classroom as well as interviewing teachers. The observation was done at two levels. As active participant observer, some times, by involving self in teaching and other times as moderate

participant observer, watching what the children were doing and how they were behaving. This was followed by the introduction of the researcher and the assistant data collector to the parents of the respective children. So as to make the respondents feel at ease, prior to the day of data collection, the parents/care takers were briefed about the objective or purpose of the study and smooth relationship was established. Then the parents/care takers were interviewed accordingly. Next followed the home visit to the sample children's home. Considering the warm culture of the society, the researcher attempted to introduce that whatever information obtained from parents, teachers, and siblings and friends will be used only for the good of the children with mental retardation in general and betterment of their child under discussion. The names of the informants will be coded and kept confidential. This served as a good gateway to the establishment of rapport between the family and the researcher. The warm relationship in turn enabled the researcher to be accepted as a part of the family or relative and obtain the necessary information effectively by easily interacting with the family. Some doubtful data were sifted out through casual conversation with the respective informant group.

3.2.4 Data Analysis

This study was planned to deal with qualitative research method, complemented by the quantitative approach. The data obtained from observation and teacher's interview was organized and tallied according the respective variable code given during instrument development. The information from parent's interview was analyzed after being transcribed from the tape; their responses for open-ended items were reframed, tallied and analyzed. The information obtained from the adaptive behavior scale and from parents and teachers' interview mostly dealt with qualitative and descriptive statistical

analysis. Thus from the qualitative analysis aspect, the views and experiences of the respondents were presented in quotation. From the quantitative statistics point of view, percentages, correlation and deviation analysis were employed accordingly.

CHAPTER FOUR

4. THE FINDINGS AND DISCUSSION

In this section, the focus of discussion with in the frame of the research questions was on the following areas. The findings on the demographic background of informants, children's behavioral characteristics, parents and teachers' understanding of mental retardation and treatment of the children under consideration as well as effectiveness (reliability and validity) of the Adapted Scale to the Ethiopian context will be presented. Discussion of the findings under demographic background of the data sources - the target children, their parents or caretakers and teachers - children's performances in adaptive and maladaptive behavioral characteristics, the parents and teachers' knowledge of mental retardation and treating the children under discussion. It also deals with the relevance of the Adaptive Behavior Scale 1992E and the supportive instruments. Attention has been given to demography of informants so as to make the reader well informed beforehand.

4.1 Demographic Back ground of the Data Sources

Table - 3 Demography of the Children

Case	Age	Sex	Level of retardation	On - Set of Retardation	Living condition
1	12	M	Educable	After birth (AB)	favorable
2	12	M	Trainable	After birth (AB)	Unfavorable
3	13	F	Educable	After birth (AB)	Unfavorable
4	10	F	Trainable	Before birth (BB)	Unfavorable
5	12	M	Educable	After birth (AB)	Unfavorable
6	13	F	Educable	After birth (AB)	Unfavorable
7	12	F	Trainable	Unknown (UK)	Unfavorable
8	13	M	Trainable	After birth (AB)	Unfavorable
9	10	M	Trainable	Before birth (BB)	Unfavorable
10	10	F	Trainable	After birth (AB)	Unfavorable
11	13	M	Educable	After birth (AB)	Unfavorable
12	12	F	Educable	After birth (AB)	favorable

It can be observed from table 3 that the age of the children seems not in agreement with the proposal of the study. The possible reason for this appeared to be:

- ⇨ May be, for cultural reason, parents appeared un-open and inexpressive, except in some cases.
- ⇨ Some parents were found giving unreliable responses with regard to age of their children like 12 or 13 years for whom one could assume 15 to 17 years.

The indices of sex and level of retardation of the children had no problem. As to the on set of the problem only about 17% of them happened before birth (S4, S_9). The rest had their on-set after birth. In general, the on-set of mental retardation manifested in most cases from 0-3 years and at age 5 (in one case) and with one unknown, for the guardians had not the access for the required information. As it can be clearly seen in table 3, only 17% of the children appeared to live in a favorable condition (good living standard, well fed, well dressed, well cared and treated with affection and positive attitude etc). The rest, about 83% of them were found experiencing unfavorable living condition in impoverished environment dashed by poor economy, poor psychosocial family atmosphere, noisy and unhealthy slum areas.

Table - 4 Demography of the Parents of the Target Children

Case	Age	Sex	Marital status	Number of children	Number of family	Edu.level	In come	Job
1	48	F	Married	5	8	illiterate	700	H/Wife
2	30	F	Married	3	5	illiterate	100	H/Wife
3	46	F	Married	4	6	literate	300	H/Wife
4	48	F	Married	7	9	illiterate	93	H/Wife
5	45	F	Separated	3	4	illiterate	60	H/Wife
6	38	F	Separated	3	4	literate	No constant income	H/Wife
7	42	F	Married	6	8	literate	600	H/Wife
8	44	F	Divorced	2	3	literate	180	Government
9	53	M	Married	6	9	literate	636	Government
10	38	M	Married	1	3	literate	200	No Job
11	39	F	Married	5	7	literate	600	Private
12	39	F	Married	4	6	literate	600	H/Wife

Table 4 shows that the data on the demography of parents indicate that the average age of the parents was 42. Majority is married and live together with their couple. Most of the parents are literate at least at literacy level, but are not employed and are housewives, who are usually burdened with domestic activities/chores. Fifty-eight percent of the parents have 4 to 7 children and a family size of 6 to 9 members. Be it in a form of salary or retirement pay, fifty percent of the parents' monthly income ranges from 60-300 Birr (during the analyses 1 US changes for 8.2 Birr). About 17% of the parents collect a monthly income of 700 Birr. The type of home environment, parent child relationship, parents' education and family size has an interrelated influence on the over all development of the child. It has considerable attribution to the emotional, cognitive and psychosocial well being of the child. In the impoverished environment, which lacks smooth psychosocial family atmosphere, it is difficult to assume the fulfillment of the demands of healthy child development. Then under such

circumstances, the children's experience of mental retardation at least at educable level shouldn't be surprising. The families who are under such stressful atmosphere would not be able to afford the provision of the required balanced need. The diet / nourishment, clothing, medical treatment, conducive psychosocial environment, affection, smooth interaction, clean and healthy living atmosphere to the child and the mother starting from the period of pregnancy to age 6, have to be provided. Because it is during this critical period that the basic layouts of an individual's later personality are being set.

Table - 5 Demography of Teachers

Cases	Age	Sex	Qualification	Marital status	Service year	Income
1	45	F	Certificate	Married	20+6	636
2	39	F	Certificate	Married	14+6	500
3	30	F	Certificate	Married	5+6	532
4	32	M	Certificate	unmarried	3+7	472
5	26	F	Certificate	unmarried	1+7	472

- NB. Certificate refers to certification both in training to teach formal and special education.

Initially it was planned to involve 6 teachers, two from each special education intervention units. But it was possible to get only 5 because of lack of access. All were certified and have the experience of teaching 1 to 20 years in formal education, and 6 to 7 in special education in regular primary school. Their monthly salary in average is

found to be Birr 522.40. It is also possible to understand from the findings, that the average age of teachers was 34 years and 60% are married. All are qualified and experienced to teach at elementary school. This would imply that they have rich experience in the field and are capable of dealing with the children in view.

4.2 Performances of Children in Adaptive and Maladaptive Behavioral Characteristics

An attempt was made to assess the adaptive and maladaptive behavioral characteristics of the children under consideration. This was done through different means, observation being the main one. The performances of the children in adaptive behavioral characteristics as incorporated in Adaptive Behavior Scale 1992E are presented below.

Table - 6 Performances of the Children in Adaptive Behavior by Domain

Case	Sex	Age	Region	Level Retard ation	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	$\bar{X}$
1	M	12	AA	Educable	100	100	100	75	75	67	67	78	78	89	83
2	M	12	AA	Trainable	70	80	44	50	25	44	33	11	56	56	47
3	F	13	AA	Educable	82.7	80	56	75	85	89	67	78	100	78	80
4	F	10	AA	Trainable	60	53	33	33	8	33	33	11	11	56	33
5	M	12	A/D/B	Educable	97	100	78	100	92	67	83	89	89	89	88
6	F	13	A/D/B	Educable	97	100	100	83	75	100	83	67	89	89	88
7	F	12	A/D/B	Trainable	70	80	22	33	17	33	17	11	0	33	32
8	M	13	A/D/B	Trainable	83	93	67	67	75	56	67	44	44	78	67
9	M	10	O/Jima	Trainable	13	53	00	00	00	00	00	00	11	22	11
10	F	10	O/Jima	Trainable	80	73	33	33	67	22	17	33	44	67	44
11	M	13	O/Jima	Educable	100	100	100	100	92	88	100	67	78	89	91
12	F	12	O/Jima	Educable	93	73	100	100	75	100	83	67	100	89	86

The findings indicated that the children's' performance in independent functioning (D1=Domain 1) appeared to be relatively normal, except for a few of them, particularly case (S 9). They were found managing self-feeding, self-dressing, undressing, drinking,

using toilet, self caring at toilet, brushing tooth, washing hands and face, combing hair etc. As regards Domain 2, almost all of the children appeared to display normal physical appearance. Majority of them couldn't be differentiated from their peers without mental retardation. It is only one exception, which refers to a child with Down's Syndrome. Regarding to their performance in the activities of domain three, about 42% of them performed below average. The economic activities involved in domain three includes going errands, money use, identifying the kinds and values of notes of Birr and coins as well as purchasing and making changes. The children's performances in language (Domain four) show that most of the children seem to be in a manageable position. That is, although language and communication deficit was reported to be the common problem of the children, prior to their joining into the special education unit, they have improved considerably. About 67% of the sample children managed both receptive and expressive language, communicate with other people, and understand each other. However, there are still some children who exhibit severe language and communication deficits. For instance, S_9, whose chronological age is 10, couldn't express his feelings and needs in either oral or written language. Two other children (S_7 and S_4) one autistic and the other with Down's Syndrome seem to experience both receptive and expressive language and communication problems. Those children who exhibited language deficits did display also deficits in attention and memory, understanding of others, systematic play and communication, proper reflection of what they heard/saw etc.

The deficits displayed in academic activities (Domain five), include identifying Amharic letters, numbers, writing and reading the number, words and computing simple arithmetic like simple addition and subtraction as well as simple multiplication and

division. A considerable number of them experience problems with time concepts. Children S_2, S_4 S_7 and S_9 would be proper references for the point in view. The findings on their performances in domestic activities (Domain six) indicate that substantial number of them (42%) experienced deficits in domestic activities. They exhibit difficulty of inability to do the domestic activities like, cleaning rooms; washing clothes and house hold utensils, participating in simple food preparation as well as in other chores independently.

According to the data in table 6, the same group of children displayed incapability to do prevocational activities (Domain seven), which involve simple handicrafts (knitting, basketry, ceramic, sewing, woodworking, drawing, gardening, and managing work discipline etc).

As is clearly shown in the table above, about 50% of the children exhibited problems in the management of self-direction (Domain eight). The deficits involve lack of own initiation and interest in work or play, in coordinating others or being coordinated by others. It also includes lack of preserveracnce, attention and concentration. The best references would be S_2, S_4, S_7, S_8, S_9 and S_{10}, who are all trainable.

The data transcribed show that many children about (42%), exhibited deficits in shouldering responsibilities (Domain 9) according to their age. They were found to be careless and inattentive to the activities like caring for personal property, family's owning, friends' belongings and government's (school's) properties - chairs, books, etc.

As clearly observed from table 6 majority of children manage sounding social maturity (Domain 10). It is only about 17% of them, who exhibited severe social maturity behavioral characteristics. For instance, like being in active in social activities, group playing, group work, lack of interaction with others, keeping self alienated or reject

mixing with others, avoid cooperating with others, unwilling to share playing materials with friends, reflecting egoistic attitude etc. are some of the exhibited characters.

Table - 7 Children's Maladaptive Behavioral Characteristics by Domain

Case	Sex	Age	Region	Level Retard-ation	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	$\bar{X}$
1	M	12	AA	Educable	0	5	12	25	20	8	6	0	13	28	12
2	M	12	AA	Trainable	4	11	30	25	67	23	11	3	6	23	20
3	F	13	AA	Educable	16	53	12	0	0	15	22	3	0	25	15
4	F	10	AA	Trainable	32	53	48	50	50	42	44	18	19	47	40
5	M	12	A/D/B	Educable	4	8	14	13	10	8	0	3	0	9	7
6	F	13	A/D/B	Educable	0	5	14	25	30	0	6	0	0	13	9
7	F	12	A/D/B	Trainable	34	34	70	31	87	120	6	18	13	16	32
8	M	13	A/D/B	Trainable	28	42	46	50	67	35	33	29	6	41	38
9	M	10	O/Jima	Trainable	46	42	48	50	80	58	33	53	38	31	48
10	F	10	O/Jima	Trainable	4	18	26	0	10	15	22	3	0	17	12
11	M	13	O/Jima	Educable	4	8	2	87	27	12	0	0	6	28	18
12	F	12	O/Jima	Educable	0	0	14	13	35	0	0	0	0	0	10

As it can be observed in table 7, the children's maladaptive behavioral characteristic displayed most considerably were withdrawal, untrustworthy behavior, rebellious and antisocial behavior, followed by psychosocial disturbance and use of medication, stereotyped and violent behaviors. Unacceptable vocal behaviors and eccentric habits as well as self abuse behaviors were found to be the least displayed maladaptive

behavioral characteristic indications of the sample children. This would imply that some children at least experienced the given maladaptive behaviors at a considerable level (cases 9, 4, and 8 would be good reference).

Table - 8 Adaptive and Maladaptive Behavioral Characteristics of the Children by Age

Case	Age	Mean of the adaptive behavior	Mean of maladaptive behavior
S_4, S_9 and S_{10}	10	29	33
S_1, S_2 S_5 S_7, S_{12}	12	62	16
S_3, S6 S8, S_{11}	13	86	20

The age index of the children was categorized into three groups, 10, 12 and 13. The mode of the age of the children is found to be 12. Despite the fact that the number of members is not equal, their achievement in adaptive behavioral characteristic seems to be lower for group 1 than the other groups. The mean score of group 2 appeared lower than group three. Their performance in maladaptive behavior seems to be in agreement with the explanation of adaptive behavioral characteristic, but only for group one and two, that is group one members exhibit more maladaptive behavioral characteristics than those of group two. Although as a matter of coincidence, all the members of group one were the so called trainable which may have its own attribute, the level of

performance seems to increase with the increase in age. But in the case of maladaptive behavioral characteristics the trend appeared to be changed. The exhibition of maladaptive behavior seems to be higher for age 10 and 13 than for 12 respectively, in which case the increase in exhibition of maladaptive behavior means the decrease in exhibition of adaptive behavior and vice versa. Thus the findings in general, show the increase in adaptive behavior which is congruent with the increase in chronological age.

Table - 9 Performances of the Children in Adaptive and Maladaptive Behavior by Sex.

Case	Sex	Mean of the Adaptive Behavior Characteristics	Mean of Maladaptive Behavior Characteristics
S_3, S_4 S_6, S7 S_{10}, S_{12}	Female	61	20
S_1, S_2 S_5 S_8, S_9,S_{11},	Male	65	24

An Attempt was made to check if there could be feasible change in their adaptive and maladaptive behavior manifestation due to sex variable. As can be clearly observed from table 9, males seem to exhibit better adaptive behavior than females

Table - 10 Performance of the Children by the Level of Retardation

Case	Level of Retardation	Adaptive Behavior	Maladaptive Behavior	Academic achievement
S_1, S_3, S_5 S6, S_{11} S_{12}	Educable	$\bar{x} = 85$	$\bar{x} = 12$	$\bar{x} = 82$
S_2, S_4 S_7 S_8, S_9, S_{10}	Trainable	$\bar{x} = 39$	$\bar{x} = 32$	$\bar{x} = 22$

As can be seen from table 10, the adaptive behavioral characteristics displayed by the educable children is greater than those of the trainable children are. The same is true with academic performance. On the other hand, the maladaptive behavioral characteristics displayed by trainable children appeared greater than those of educable did. By implication, it means the same to that of the first explanation, because less manifestation of maladaptive behavior means more exhibition of adaptive behavioral characteristics and vice versa. The mean score of their academic achievement also shows remarkable difference in favor of educable children.

Table - 11 Performances of the Children by Region

Case	Age	Mean of the Adaptive Behavior	Mean of Maladaptive Behavior
S_1 - 4	Addis Ababa	61	22
S_5 - 8	Amhara/Debre Birhan	69	22
S_9 - 12	Oromiya (Jimma)	58	22

Further attempt was made to assess the influence of different culture on the exhibition of adaptive and maladaptive behavior of the children under the focus of the study. The findings indicated that the children from Amhara region (Debre Birhan) displayed better performances in adaptive behavioral characteristics than those of the other two regions. The children from Addis Ababa appeared to show slightly better performance than those of Oromiya (Jimma). But it doesn't necessarily mean that this represents the conditions (cultural factors)of the regions. The researcher believes that it only represents the conditions of the sample children and may also give some hint or clue about the conditions of the target population in the study sites. The analysis of their performances in maladaptive behavior by region also showed no considerable difference. This also supports what has been explained earlier.

The findings of this study on adaptive and maladaptive behavioral characteristics of children with mental retardation indicate substantial agreement with the findings of former studies carried out by various scholars, like Tirusew (1998,) and McLaughlin (1996). The findings of the current study revealed that majority of children under this study experienced living in an impoverished environment, which may be a possible causative factor for their retardation. They exhibited observable deficits in independent functioning activities, before joining into the intervention program (see page 60 of the report). Among others, the main ones reported are deficits in managing self feeding, self dressing, drinking, self care at toileting, cleanliness - washing hands and faces, brushing tooth, etc. But their performance in adaptive behavioral characteristics after joining the intervention program showed substantial improvement in all aspects of adaptive behavior. For instance, the average improvements made by the children in

independent functioning skills were 87.5%. It is only one child who still has severe deficit, in independent functioning skill (S9).

As to the physical and motor development activities and general physical appearance, substantial number of parents (83%) and teachers (100%) reported that the children under discussion experienced various sorts of deficits in physical and motor activities, before joining into the special education intervention program. Before the intervention, almost all had problems with independent free movement, going to school, reaching target, managing eye-hand and eye-foot coordination. Some of them were not able even to manage standing and or sitting erect. According to the information from the observation and parents' as well as teachers' experience, almost all have improved to the extent of not being differentiated from other children with out mental retardation. In fact it is with the exception of a child with Down Syndrome (S_4) and a child with a minimum brain disorder (may be) (S_9). The children's performance particularly the ones labeled as educable seems to be in agreement with the characteristics of mildly mentally retarded children stated in various literatures like in Drew et. al (1989). With regard to the children's capability in the management of economic activities, substantial number of children still exhibit severe deficits. About 42% of the sample children perform below average in the activities like going errand, money use, identifying the kind and value of Birr notes and coins as well as shopping and making changes.

Remarkable change was observed in the language and communication aspects of the children's behavior with the exception of very few cases. Nearly sixty-seven percents of the children managed both expressive and receptive language and 58% them properly manage spoken and written language. The child who exhibited severe language and communication problem also experiences psychosocial family atmosphere due to may

be misunderstanding among the parents. The other factor for the deficit could also be associated with the brain disorder he has. The other children who exhibited substantial deficit in language and communication were the autistic child and the one with Down Syndrome. They have also impoverished living atmosphere. Their poor psychosocial and economic environment possibly could attribute the reason for the deficits of the children. Because children, especially at early age of development, gain a lot of advantage from warm, interactive and affectionate family environment. The absence of such quality contributes much for the deficits under discussion. Literatures also confirm this (see Kirk 1986). The performances in academic activities seem slightly above average (57%). About 67% of them attempted writing Amharic letters, words, short sentences, copying figures from black board, computing simple addition and subtraction at least. This would imply they have improved substantially.

To make a point here, one of the children who showed good performance (75%) in academic activities was one of the children who were labeled by his teachers as trainable, but he did substantially good except in the domains of self-direction and responsibility. This could be the effect of screening the children with disability (mental retardation) in the absence of properly designed technique, training and instruments. To summarize the issue in view, the findings of this study indicated that educable children's performance is remarkably better than those of trainable children are ($\bar{x}$ = 82 to $\bar{x}$ = 32) respectively.

The children's performance in domestic activities and prevocational activities show more or less similar trend to those of domains 3 to 5. As it can be clearly seen from table 6, it is the so called trainable children who showed observable deficit both in domestic and

pre-vocation activities, the means of their performance being $\bar{x}$ = 58 in domestic activities and $\bar{x}$=54 in prevocational activities. Although the finding seems encouraging, the number of children who performed low in these activities is considerably high. This could possibly be due to:

- ⇨ Lack of good role model and encouragement or stimulation from the parents/family side,
- ⇨ Lack of good training for teachers and material access at school/place, facilities, human power etc.
- ⇨ Lack of coordinated work between schools/teachers and community/ parents or families.

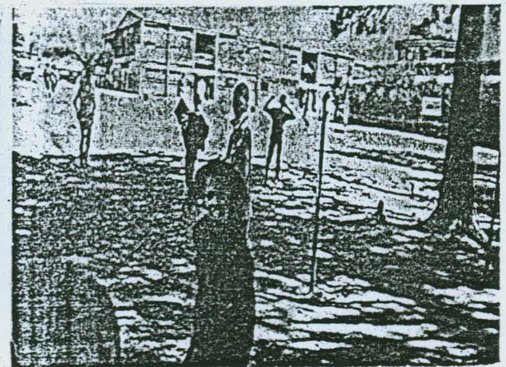
Self-direction is one of the components of Adaptive behavioral characteristics. It requires the development of self-esteem, which intern demands the positive attitude and acceptance of others (Parents, siblings, peers, neighbors etc) as a basic set up(see Cooper Smith in Drew et al,1984) The findings show that half of the sample children displayed severe deficits in self-direction activities. Lack of initiation and interest in work, lack of attention in purposeful activities, lack of persistence or perseverance, becoming easily discouraged and failing to carry out task and jumping from one activity to another as well as lack of concentration are some examples.

It is only the performances of the children in self-direction activities that clearly made bold line demarcation between the educable and trainable children according to the teachers' labeling. The mean score respectively are $\bar{x}$ = 74 and $\bar{x}$ = 18. The low performance of the children (mainly trainable ones) both in responsibility and self-direction activities may be the attributes of the level of retardation they have and lack of

access and stimulation for appropriate practice. This could be both from the family's mainly parents' and or the schools or teachers' side.

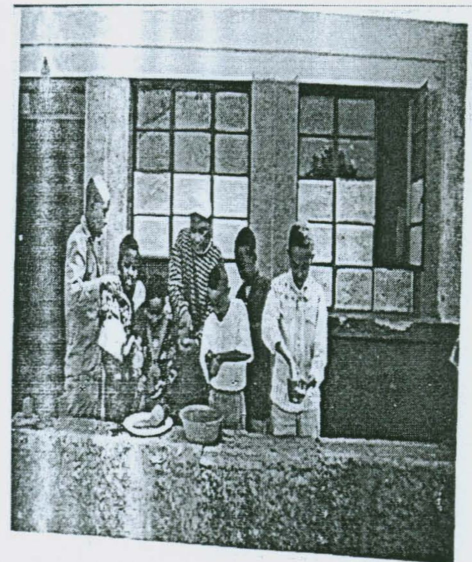
The changes observed in the domain of social maturity of children seem encouraging and sounding. The children who were locked in behind doors got the opportunity to interact with peers and teachers, being stimulated by their teachers to practice social life. This and related factors may possibly facilitated the process and attributed for the change.

Just to sum up the discussion on the performances of the children, they have made practical and observable improvement in most aspects of the adaptive behavioral characteristics, particularly in independent functioning of self help skills or activities, physical and motor activities and social maturity activities. The following pictures taken during the data collection indicate the improvements made by the children in the respective domains of activities since they joined the special education units.

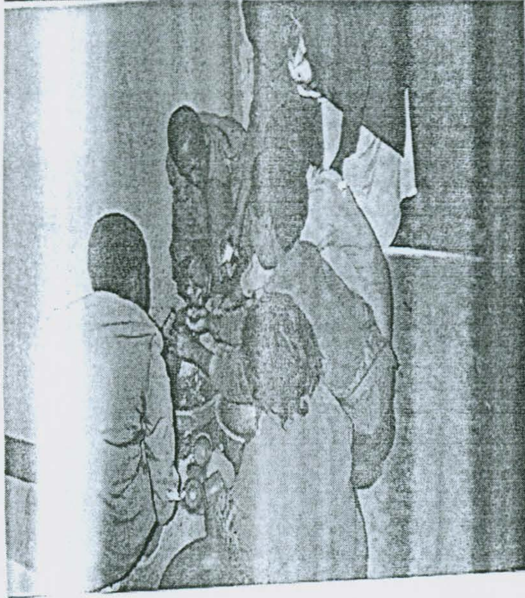


Children with mental retardation playing football

Children with mental retardation and the researcher
engaged in academic activities

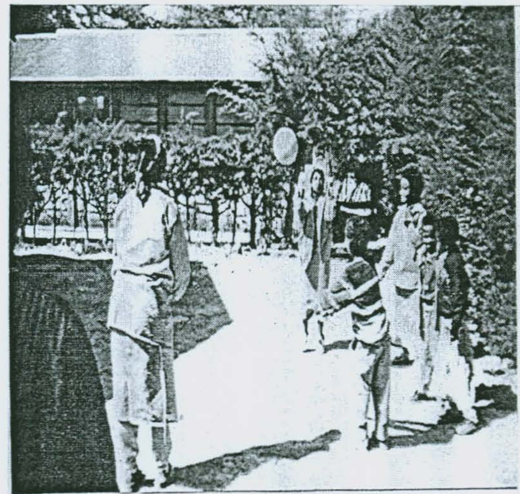


Children with mental retardation and their teacher
in making tea and helping each other



Children with mental retardation washing household items

A girl with cerebral palsy washing cups



Children with mental retardation throwing and holding a ball

The possible reasons for the low performances in majority of the other cases could possibly be,

- ⇨ The lack of good family role model and warm psychosocial home atmosphere that stimulates the child to develop self esteem and practice all sorts of activities helpful for personality development,
- ⇨ Lack of economy/finance,
- ⇨ Lack of knowledge or orientation about the condition and handling the children with mental retardation from the family side,
- ⇨ Lack of adequate training and absence of incentives or encouragement of any sort for teachers training the children with mental retardation,
- ⇨ Absence of accesses for proper practice because of lack of place (playground, rooms, toilet, water service), material provision and trained human power etc.,
- ⇨ More abstractness and difficulty of the activities of these domains.

The attempt made to check children's manifestation of maladaptive behavior showed that there were some children who have exhibited considerable maladaptive behavior like withdrawal, untrustworthy rebellious and antisocial behaviors. They were followed by some psychosocial disturbances and use of medication (children with epilepsy usually use tranquilizers), stereotyped and violent behaviors. The analysis of manifestations of both adaptive and maladaptive behaviors of children by age, sex, level of retardation and region revealed that,

- ⇨ The adaptive behavior manifestation was in congruency with the increase in chronological age, it establishes following the developmental growth of children,
- ⇨ Low exhibition of maladaptive behavior means high display of adaptive behavior and vice versa,
- ⇨ The manifestation of withdrawal, untrustworthy rebellious and antisocial behaviors may have an interconnected relation to the kind of living environment/family atmosphere/ of the children. Because the economic, psychosocial and educational background atmosphere of the family undoubtedly have central importance to the general development of the children. The use of medicine is related to children with epileptic seizure.
- ⇨ Maladaptive behavior manifestation increases at younger age and falls at 12 and increases again may be after age 13. Although the researcher is willing to have the rooms open for the attribution of other factors for the changes observed, he also accept the finding as logical. Because as children with mental retardation grow order after early child hood period they tend to decrease in their ability of retention and span of attention. Thus from the researchers perspective, since those children reported to be age 13 seem to be about 15 to 17 it fits the given logic.
- ⇨ The findings with sex index indicate a bit contradictory issue, that is, in adaptive and maladaptive behavioral characteristics, males appeared with high performance. If high performance in maladaptive behavior means the low performance in adaptive behavioral characteristics, there comes the contradiction between the two high performances of males in adaptive

and maladaptive behaviors. But the difference didn't seem that much considerable. Other wise the cultural imposition put on females/girls, which hinder them from expressing their emotional feelings freely may have attributed for the low manifestation of maladaptive behavioral characters and vice-versa.

⇨ The analysis of their performance in adaptive and maladaptive behavior against their level of retardation showed logically sounding agreement to what have been written in related literatures. The educable children performed higher in adaptive behaviors ($\bar{x}$ = 85) and lower in maladaptive behavior ($\bar{x}$ = 12) than the trainable children whose performance were $\bar{x}$ = 39 and $\bar{x}$ = 32 respectively. In short both the high performance in adaptive behavior and low achievement in maladaptive behavioral performance means the same. Thus the betterment of educable children's performances than those of trainable ones sounds logical.

⇨ The analysis of the children's performance in adaptive and maladaptive behavioral characteristics showed that children from Amhara region (Debre Birhan) performed slightly better than those of the other regions only in adaptive behavioral characteristics. The children of Addis Ababa region appeared to show slightly better performance than those of Oromiya only in adaptive behavioral characteristics. Due to the limited sample size and time of stay with the children and the family it is hardly possible to say that the finding represent the regions. Neither is possible to say the difference is due to the different culture they have. Anyway the researcher believes that it only represents the conditions of the sample children and may also give some hint or clue about the

conditions of the target population in the given site. This could also imply the need of further study on the influence of culture on the exhibition of adaptive and maladaptive behavior of the children with mental retardation.

4.3 Parents and Teachers' Understanding of the Condition and Handling Children with Mental Retardation.

4.3.1 Parents' Understanding of the Condition and Handling their Children

Assessment was made to see how much parents know what mental retardation is, how they came to know about it, how they handle their child with mental retardation, what efforts they made and what specific behavioral characteristics they observed before and after the child joined the intervention program. They were also interviewed about the onset of the problem/condition; how they perceive persons with mental retardation and what the causes are. Finally they were requested to give their suggestions for the improvement of the intervention program for persons with mental retardation.

It is found out from their response that almost all parents identified the condition after birth ranging from the first day of birth to age 3 mainly and age 5 rarely. About 68% of them declared that they have identified the problem through their observation. Some others said observation and medical examination reports were the main means of identification. As to the measures they have taken, majority of them said medical treatment, holy water and enrollment into special education intervention program appeared to be the main ones. Some parents also reported that they also dealt with traditional healers/ herbalists. In their response to the non-structured interview

regarding the specific behavioral characteristic of their children under discussion, before enrolling him or her into the intervention program, almost all of them concentrated around common responses. Among other characteristics the following were considered the most prevalent ones by majority of the parents. The major common adaptive behavioral characteristics manifested by the children before entering into the intervention program were:

- ⇨ Lack of independent functioning - inability to feed self, dress and undress self, drink and use toilet or self care at toileting, washing hands and face etc.
- ⇨ Lack of physical and motor ability - deficits in gross and fine motor activity (eye- hand and eye - foot coordination etc.)
- ⇨ Failure in Management of domestic activities and participation in house hold chores,
- ⇨ Lack of self-direction - doing things by own initiation,
- ⇨ Lack of responsibility - Caring for own belonging and others property,
- ⇨ Deficits in academic activities - reading, writing, computing,
- ⇨ Deficits in language and communication / receptive, expressive, oral, written,
- ⇨ Failure in management of economic activities -using money,
- ⇨ Lack of social maturity - interaction, co-operation, and working together,
- ⇨ Lack of memory, attention and concentration,
- ⇨ Absent mindedness and day dreaming.

Some of the maladaptive behavioral characteristics most parents mentioned as the experience of their child with mental retardation prior to entering into the intervention program were:

- ⇨ Aggressive behavior
- ⇨ Hyperactive behavior
- ⇨ Truancy
- ⇨ Withdrawal
- ⇨ Untrustworthy behavior
- ⇨ Self defense
- ⇨ Antisocial behavior
- ⇨ Disruptive and destructive behavior
- ⇨ Violent behavior

It would be a worth mentioning and good reference to present a portrait of one case. She is a mother of S_{11} who is living with her 4 children and husband.

Age 39

Education - grade 11

Occupation - Private enterprise of the family - wood work

" Not to kill him or throw him out he is our flesh and blood"

The whole portray is a bit long and comprehensive, so only the relevant aspect to the case in point is selected.

Before putting S_{11} into special education intervention unit, the whole family used to be upset, and nervous, because of his destructive and

disruptive behavior manifestation. He was untrustworthy and aggressive. He was not able to manage self-care skills independently. He had severe deficits in memory, academic skills, social activities, language and communication, self-direction as well. His disruptive behavior led our family to quarrel with neighbors and friends. Some of our neighbors used to come and say ይህን እብድ ልጃችሁን የምታደርጉትን ብታደርጉ ይሻላል። አለዚያ ሊያኖረን አልቻለምና አስቡበት። Which literally mean, you better take whatever measure you wish, with your mentally sick child, other wise he deprived us our peaceful life. You better think of it. He used to collect all sorts of garbage and dead bodies of animals and birds, bring them home. We were not able to eat meal peacefully in his presence, because he suddenly turn over everything and disturb the whole setup. What would you do other than tolerating what so ever it is? Not to kill him or throw him out, he is our flesh and blood.

Any way we thank God our greatest lord! He saved us and saved our child as well. We also thank the special educators Ato Tesfaye and W/t Eyerusalem Ephrem who came and knocked at our door to take S11 to their special education unit. Now he is cured and manages almost every thing by himself, but slowly.

With regard to the behavioral characteristics the children manifest after joining special education intervention many of the responses of parents concentrate on the following points.

⇨ Manage independent functioning of self-care, feeding self, dressing, undressing, drinking using toilet, going to school etc.

⇨ Care for personal belongings and the friends' property.

⇨ Improved language and communication to a great extent.

⇨ Identified Amharic letters, and numbers as well.

⇨ Can read, write and compute simple arithmetic simple addition, subtraction.

⇨ Go on errands identify notes of 5 Birr and coins at least..

⇨ Make use of money although sometimes have problem with change.

⇨ Develops some sort of self-direction but not much.

⇨ Develops responsibility, caring for others.

⇨ Attempts to establish and develop socialization/social interaction among peers.

⇨ Participate in household chores or domestic activities like cleaning room, washing plates, making beds, washing cloth, fetching water, knitting, making basketry making tea and participating in simple food preparations etc.

It would be more sensible if it is integrated with a portrayal of a case, which goes in agreement with the issue in view. This is a mother of case/ S_{12}. She is living with her couple who is a director of a primary school and her four children in a warm family atmosphere. She is a housewife of age 33.

Education 7th grade

<u>" I promised to thank God, if my daughter walks straight, even if she remained Dumb"</u>

It is only the relevant aspect of the interview transcribed here as it is from the tape.

"My daughter was born healthy and normal. At the seventh day of her birth accidentally she burst into cry. Started shivering and drooling finally her limbs stiffened. The family was disturbed we took her to hospital and she got treatment but no solution/cure was obtained. People told us to treat her with holy water at St. Gabriel church. We did accordingly. Though there seem some improvement with her crying and drooling, the stiffness of the limbs and deficits in language development remained long lasting. It was then that <u>I promised to thank God, if my daughter walks straight even if she remained dumb forever</u>". But since God is great and forgiver, my daughter S_{12} is speaking, walking, writing and reading. After about 10 years of suffering she manages all independent functioning of the daily living skills, takes care of her and others. I would like to appreciate the efforts of special educators, I would say emphatically that it is the outcome of our collaborative and unreserved efforts."

As to what they know about mental retardation, their response indicated that for about 33% of them it is lagging behind peers. For 25% of the parents it is burden to others.

About 17% parents said it means illness. For another 17% of them, it is misfortune and for only the rest 8% of them it is developmental problem. Except only one parent, all of them expressed their sympathy and feeling of sorrow about persons with mental retardation. But the exceptional parent elaborated his feeling as follows. In fact I don't feel sorrow, neither show special sympathy for them because I am convinced that they will improve through proper intervention.

The responses of the majority of parents to the interview item, which asks of their knowledge of etiology of mental retardation of their child indicated that possession by devil spirit or evil eye, appeared to be the main one. Trauma, malnutrition and error in medical treatment both during delivery and pregnancy followed next. Epilepsy, drug abuse, drug abuse and trauma, malnutrition and possession by devil spirit or affection by evil eye were some of the responses given by parents. The parents' response to the question posed to elicit their feeling on what has been done so far and what should be done, about 50.7% of them said that every party (family, society and school community and government) is doing fine if possible let them strengthen their efforts. About 33.4% of them said the families should be affectionate and treat their children with love; let the school, family, the community and government work together to create favorable atmosphere for the good of the children with mental retardation. The last 8% of them, said the family, school and community should have proper awareness so as to render what is expected of each party.

The on-set of mental retardation was identified by all parents after birth ranging from the first day of birth mainly to age 3. In fact, with the exception of one guardian whose response was unknown because of lack of access. They (68%) identified the problem mainly by their observation from their regular day today life experience point of view.

Majority of parents response to the measures taken, underline medical treatment, holy water and enrollment as well as dealing with traditional healers/herbalists.. Since there is mere lack of awareness among the society about mental retardation and techniques of treating persons with mental retardation the parent's responses on the identification and treatment measures taken seems logical.

The major adaptive and maladaptive behavioral characteristics manifested before joining the intervention program as indicated in the findings part seems reasonable for they are in agreement with the adaptive and maladaptive behavioral characters described to be displayed by persons with mild to moderate (educable to trainable children) mental retardation.

The major findings regarding the improvements made by the children, according to the parents response also are in agreement with the possible achievements stated to be achieved by the respective persons under well planned and implemented programs. Practically it would be true as far as children with mental retardation are well screened and intervened with a properly designed plan of program using appropriate technical procedures, and there would be no doubt to achieve improvement related to the level of retardation they have. Former research findings by other scholars are also in congruent with the current findings (see Tirusew 1998 pp. 58-60).

Majority of the parents' response to the measures taken and the sample protrayals presented underline medical treatment, holy water and enrollment as well as dealing with traditional healers like herbalists. The portrayals also indicate the improvement that the children under discussion made since they joined the special education units and the attuide change that parents made.

4.3.2 Teachers' Understanding of the Condition and Handling of Children with Mental Retardation

An attempt was made to check the teachers' knowledge about mental retardation and handling children under discussion. In their response to the questions posed to them, it is found out that, almost all of them agreed that the background history of children was assessed. The on- set of the children's mental retardation in majority of the cases was after birth. Their response regarding the concept of mental retardation implies developmental delay.

As to the children's period of stay at the special education unit, all agreed that they have stayed 1-2 years at least. The focus of training as reported by the majority was based on the severity of the problem and accessible potential ability they have. Hence, problems related to language and communication, self-direction, academic skill, lack of interest in learning and dashed economy were reported to be the major areas.

Teachers responded that the children made substantial improvements in the areas focused in the training, in most cases to the extent of performing the activities independently. Regarding to the method of identifying the children with mental retardation, majority of them (92%) said, they are using observation and the rest said they are employing application of observation and medical examination reports. As to the question of children's improvement in the adaptive behavioral characteristic manifestation, majority of them agreed that they have improved much in many aspects. But still have considerable problem with other aspects. For instance, some of the main aspects that have been improved include:

- ⇨ physical and motor development- grosses and fine motors
- ⇨ sensory motor development

- ⇨ social maturity-socialization and
- ⇨ general independent functioning.

On the other hand some of the aspects that has been improved to some degree but still needs much effort includes,

- ⇨ language and communication,
- ⇨ academic functioning skills,
- ⇨ memory and attention.

Teachers were also requested to give their view on what is expected of parents, school, society and government to improve the handling of the intervention program. According to their response majority of them said that,

- ⇨ Parents should be given some sort of orientation on mental retardation (the concept, Social psychology, etiology, prevention and intervention), handling the children and in collaboration with others etc.
- ⇨ Parents should give affection to children with mental retardation equally to the other siblings/if not more.
- ⇨ Parents should cooperate with schools and others who work for the good of the children under consideration.
- ⇨ Orientation should be given to the society on mental retardation and persons with mental retardation.
- ⇨ Schools have to be aware of the condition and strengthen their effort to establish conducive atmosphere to run the intervention program smoothly.
- ⇨ The government should give more attention to offering proper training to teachers and the children so as to make the children's future careers easier for independent functioning.

- ⇨ In the statements of the state policy, the government should give more emphasis to the training and placement of persons with disability at various levels.
- ⇨ Some form of incentive or encouragement should be given to the teachers of children with mental retardation.

Teachers' response to the item that quest what mechanism/s do they use and what should be done for the future indicated that 100% of them said that they use their observation based on their past experience and sometimes with reference to medical examination reports. For the future, they, as consensus recommended to prepare some sort of standardized scale based on the culture of the society and a guideline on the procedure of collecting data, recording and processing as well as applying the information obtained. In the casual conversation, teachers also expressed their dissatisfaction in their job, because of lack of encouragement and appropriate concern for the field from the respective educational officials at different levels.

The findings on teachers' understanding of mental retardation and treating the children seem encouraging despite of the limitations they have in training and material provision as well as lack of awareness from school community and the parents. Thus according to their response and most of the records they have, they attempt to assess the back ground of the problem, pay attention to the area of focus of training the children. They also identify the on-set of the problem and level of retardation, though not grounded firmly with some sort of scale or test. The major area of focus reported by the majority appeared languages and communication, academic skills, self-direction, lack of interest in learning economic and memory as well as attention problems. Despite of the existing problems the children have made remarkable improvement in the area of language and

communication, physical psychomotor, social development and academic functioning etc.

The teachers' recommendation on what should be done to improve the intervention program seems logical and attention seeking. Partially their suggestion on promotion of awareness and relevant training goes in agreement to that of parent's response it seems sensible and basic. With out awareness of the respective parties (parents, education officials and community members/society) about mental retardation, intervention and factors that contribute for the effectiveness of the program and active participation of the respective parties there would be no effective intervention.

4.4 The Adaptive Behavior Scale 1992E

The need for instruments in the process of screening the children's need or level of limitation is essential. There is no doubt that it is difficult, if not impossible, to effectively manage screening children's needs so as to plan and implement appropriate intervention program. The effectiveness of an instrument depends on its reliability and validity. As indicated in Chapter Three, the reliability and internal validity of instrument can be improved by paying attention to the internal and extraneous variables. In view of this attention was given to checking objectivity, relevance, adequacy, language clarity and expressiveness. In general, appropriateness of the items included in the scale was checked. Further attention was given to socio-cultural, economic and technological level of developmental considerations of the country. Thus, the adapted scale was validated by the comments of professionals (Psychologists, Linguists, and special educators). The first draft of the adapted scale was also evaluated by the ratings of two special educators of children with mental retardation on the basis of three level rating scales.

The findings indicated that there is high inter rater agreement between their rating of the adaptive behavior characteristic. The agreement level was 85%. The agreement level in the evaluation of the maladaptive behavioral characters was 75%. The raters' general comments concentrated around avoiding unnecessary repetition and redundancy: merging similar items or themes of items and deleting some culture bound domains like sexually aberrant behavior, etc. The raters underlined their reminding regarding minimizing the number of domains and items and making the guideline more clear and precise.

The other attempt made was piloting the scale after the reconsideration of the comments given. During the pilot study interview for parents and teachers as well as interview guide prepared by the researcher as a supportive data collection instrument were employed. The findings of pilot study indicate more or less similar results, particularly in adaptive behavioral characteristic aspects. With regard to maladaptive aspects of behavior of the children, no remarkable display was observed. There was also similar result to that of current study in the parents and teachers' experience of mental retardation and treatment of the respective children as well as the condition at home and school environments. Further attempt was made to check the level of correlation between their academic performance and behavior manifestation (the level of retardation). Each was found out to be positively correlated ($r = 0.9$). This shows that those children who displayed better behavior also showed better academic performance and vice-versa.

Moreover, the researcher and his assistants made the observation of the same child independently using the same scale and guide line but some times separately and

mostly at the same time under the same condition. This was done to raise the level of reliability of administration of the test. The findings show that the agreement level between their independent administration was 82% in adaptive behavior aspects and 76% in maladaptive behavior. Their agreement on the administration of the Adaptive Behavior Scale 1992E in one way or the other seems to attribute to the reliability of the adapted scale. Thus the findings in general appears to be in favor of the reliability of the adapted scale.

According to the findings of the pilot study and the current study reported so far, it seems to confirm the reliability of the instruments because:

1- The findings of the pilot study and the current study showed more or less similar trends both in adaptive and maladaptive behavioral characteristics. In fact the level of performance rate of manifestation of the behaviors in the current study is relatively higher than the pilot study. But in both studies the so-called trainable children's performance was lower than the educable.

   Manifestation of maladaptive behaviors was more in the case of trainable children than educable ones. In general, it was lower than the case of current study. The attempt made to analyze the measure of variability for the function of interpreting the test scores showed that there was relatively high deviation among the performances of sample children (group - A). The standard deviation for their performance both in adaptive behavior and academic skill aspects were SD = 7.6 and SD = 10 respectively. The case for trainable children (group - C) seems more or less similar to that of

group - A (SD = 7 and SD = 10), while for group B (educable children it was relatively low particularly in adaptive behavior (SD = 1.5 and SD = 9). The presence of high deviation among the performances of children under normal condition may serve as a clue for the presence of a problem and for the need of further investigation. But in this case, the children are already identified as they are with mental retardation. Thus the high deviation among the whole sample children (group - A) and the difference between the deviation of groups B and C could imply the different potentials that educable and trainable children have. In other word it would mean the difference in their level of retardation.

2- The agreements of the raters in the evaluation of adaptive behavioral characteristics assessment scale was high (85%) and that of maladaptive aspect was also attention seeking (75%).

3- The findings almost in majority of the areas assessed appeared logical and sounding. The following are some examples:

⇨ The betterment of children's achievement after joining into the intervention,

⇨ The higher performances of educable children than the so called trainable.

The agreement of the reported behavior deficits before the intervention and the observed behavioral characteristics after joining the intervention to what have been stated in the related literature etc. indicates the appropiatenees of the instruments. It was also possible to identify and determine the adaptive and maladaptive behavioral characteristics of the children under consideration by means of the adaptive behavior

scale 1992E and suppelmentary instruments. Although the magnitude of manifestation varies almost all the themes of items representing the adaptive and mal adaptive behavioral characteristics were observed. Thus the researcher feels that the instruments would serve the purpose of screening and identifying. But the researcher still feels that further study is needed to enrich and more refine the instruments.

CHAPTER FIVE

5. SUMMRY CONCLUSION AND RECOMMENDATION

5.1 Summary

This study has attempted to:

- ⇨ Identify the adaptive and maladaptive behavioral characteristics of some children with mental retardation.
- ⇨ Examine the understandings of parents and teachers of the children under consideration about mental retardation and treatment of children with mental retardation.
- ⇨ Adapt an adaptive behavior scale and check its relevance to the Ethiopian condition.

In this effort the performance of individual children both in adaptive and maladaptive behavioral characteristics was assessed. The relevance of the adapted behavioral scale [ABS 1992E] and the supportive instruments developed by the researcher were tested. The understandings of parents and teachers about mental retardation and treatment of the target children was examined. The possible attributing factors were discussed.

In short, in this section an attempt is made to highlight the pertinent findings of the study.

5.1.1 Demographic Background of the Data Sources

a) Children - The findings regarding the children's age indicated that it was not possible to obtain sample children of the same age, the same sex and the same level of retardation. Thus the age variable was considered within the range of 10 to 13. This measure has solved the problem of other

variables, so it was possible to draw sample children from each sex and level of retardation from each region. Thus two males and two females from which one of each sex was educable and the other one trainable were involved. The majority (83%) is living in unfavorable condition.

b) The demography of parents indicate that their age ranges from 30 to 53 the average age being 42. Majority of the participants was mothers /the ratio in percentage was 83:17. The case with marriage was similar, 75% were married and live together, about 17% were separated and only 8% divorced. About 67% were literate ranging from literacy to grade 12 (secondary education). The average family size and number of children they have were 6 and 4 respectively. The parents' average monthly income was Birr 304.92. Except few of them, all were unemployed. They are mainly housewives. The home environment of the majority seems impoverished and stressful.

c) The teachers age range from 26-45 with the experience of 1 to 20 years in formal education and 6 to 7 in special education. All are trained and qualified to teach in primary schools both children with disabilities and without disabilities. Sixty percent females and only 40% males. The same was true with their marital status, 60% married and 40% unmarried. Their average monthly income was Birr 522-40.

5.1.2 Performances of the Children in Adaptive and Maladaptive Behavioral Characteristics

The information obtained from different angles like participatory observation, parents' and teachers' interview and casual conversation indicate that the children have experienced severe deficits almost in all activities. To mention some:

- ⇨ Inability to manage self-feeding, drinking, dressing, undressing cleaning (washing hands and face), self care at toileting,
- ⇨ Deficits in language and communication activities,
- ⇨ Deficits in memory, self-direction, domestic activities as well as in some physical and motor activities etc. Some of the maladaptive behaviors experienced by many of the children before going the intervention program in the respective special education units were, aggressiveness, hyperactive, untrustworthiness, antisocial and withdrawal and etc.

As to the current status of the condition with the children they showed encouraging improvement in most adaptive behavior skills. To cite some:

- ⇨ Independent functioning of the self-care skills,
- ⇨ Physical and psychomotor activities,
- ⇨ Social maturity activities etc.

The reasons assumed to attribute for the low performance possibly include,

- ⇨ Lack of good role model from the family,
- ⇨ Lack of conducive psychosocial family atmosphere,
- ⇨ Lack of finance,
- ⇨ Lack of knowledge about mental retardation and proper handling of the children with mental retardation,
- ⇨ Absence of access for proper practice- (place, facilities, play ground rooms, materials and etc.),

⇨ Lack of adequate training and incentive for teachers.

The increase in exhibition of adaptive behavioral characteristics was found in congruency with the increase in age. The rate of adaptive behavior exhibition analyzed by sex seems to appear in favor of males both in adaptive and maladaptive behavior (but, not by implication). It seems hardly possible to be aggressive, withdrawal, untrustworthy etc and socially matured, interactive, trustworthy, etc at a time. In general both in adaptive and maladaptive behavioral aspects educable children performances analyzed by region seems that the children from Amhara Region (Debre Birhan) performed higher than those of Addis Ababa and Oromiya regions.

5.1.3 The Parents and Teachers' Understanding of Mental Retardation and Treatment of the Children Under Consideration

5.1.3.1 The parents' understanding of mental retardation and its etiology as well as proper treating of the children appeared low. This indicates the need of orientation. The other findings regarding children's achievement in adaptive behavioral characteristics was found in agreement with the data obtained from other informants or data sources like teacher's interview and the researchers' observation.

5.1.3.2 The Teachers information on the children's adaptive and maladaptive behavior was similar to that of the other data sources. As to the teacher's focus of training they believed that it is done on the basis of severity of retardation and accessible potential ability the children have, the major entertainment areas

were language and communication, self-direction, academic skills, lack of interest in learning and dashed/ stricken economy.

The common experience of identifying mechanism responded by majority of teachers was observation. The teachers underlined the need of orientation about mental retardation and treatment of persons with mental retardation both to parents and the community as well as school staff.

Parents should provide affection and positive attitude to their children and work in cooperation with persons and organizations working for the welfare of the children under-discussion. The government was suggested to give more attention to provision of proper training, giving appropriate and due emphasis in the policy statements as regards teachers training and placement of persons with disability at various levels.

Teachers recommended the need for preparation of some sort of screening and identifying devices such as standardized test based on the local culture of the society with a guideline on the procedure of collecting data, recording, analysis, processing and interpreting the information.

5.1.4 The Adaptive Behavior Scale 1992E

The attempts made to adapt and check its relevance to Ethiopian context showed encouraging results. The efforts made include adaptation of the scale, validation of the adapted scale, by the comments of professionals, and ratings of two special educators as well as piloting of the scale with its supportive instruments developed by the researcher. The researcher and his assistants used the scale independently for observing the same individual in fact sometimes separately and mostly together at the

same time, place and condition. Their agreement and disagreement was calculated. They were agreed in 81.5% of the adaptive behavioral characteristics. Their agreement in the evaluation of maladaptive behavioral characteristic was 76%. This could show the reliability of the test administers. The raters general comment and rating with reference to the given 3 level scale also found encouraging. Their level of agreement in adaptive and maladaptive behavior was 85% and 75% respectively. This also shows that the instrument is in a good position to be employed. The findings of the pilot and current study relatively are similar. This also attributes to the strength (reliability and validity) of scale. The effort made to check the reliability of the scale with reference to the children's performance in some academic functioning skills showed significant correlation r = 0.9. The attempt made to make analysis of deviation statistics seems to indicate clear variation between the two groups of children (educable and trainable) both in adaptive behavior and academic performance aspects.

The standard deviation for the performances of educable children in adaptive and academic skills were SD = 1.5 and SD = 9, while for the trainable children were SD = 7, and SD = 10.

5.2 Conclusion

This study focused on the identification and determination of adaptive behavioral characteristics of children with mental retardation and laying a ground for the development of Ethiopian behavior scale. Thus, based on the researchers' experience in the research and curriculum development both for children of formal and special education, this study has made efforts to assess the behavioral characteristics of children under consideration. It also examined the understandings of parents and teachers of the respective children. In this effort, the study addressed the possible influencing factors related to the children's behavior modification and exhibition. The study also examined the relevance (reliability and validity) of the test/Adaptive behavior scale (ABS-1992E). Adaptive Behavior Scale -1992E, interview for parents and teachers as well as casual conversation were used for data collection. Although it is hardly possible to make conclusion on such comprehensive and time seeking issues based on one shot study of such limited sample size and time, it is possible to highlight the indicative observations of the study.

a) The Behavioral Characteristic, Exhibited by Children before Joining into Intervention Program

- ⇨ Most of the children with mental retardation experience unfavorable living condition and display observable deficits in adaptive behavioral characteristic,
- ⇨ The major deficits observed before intervention include mainly, inability to manage,

- ⇨ Independent functioning of self help skills like self feeding, dressing, self care at toileting, washing hands, face and brushing tooth etc.
- ⇨ Physical and motor activities (mainly trainable, children),
- ⇨ Domestic activities/chores,
- ⇨ Economic activities,
- ⇨ Academic functioning skills,
- ⇨ Language and communication skills,
- ⇨ Self-direction, responsibility, prevocational and social maturity activities.

b) Improvements Achieved Through the Intervention

Improvements made by majority of the children after their introduction to intervention appeared:

- ⇨ Independent functioning of self- helps skills,
- ⇨ Physical and motor activities,
- ⇨ Social maturity skills.

The major factors for this, possibly, could be the activities included in these domains seems more related to the basic daily life of each individual child like eating, dressing, moving and playing etc. They are also more practical and easily adaptable.

c) Manifestation of Maladaptive Behaviors

The exhibition of maladaptive behaviors like withdrawal untrustworthy, rebellious and anti-social behaviors were the major commonly manifested maladaptive behaviors observed, may be due to their strong relation to the kind of living

environment of individual/psycho-social, economic, and educational family atmospheres. The possible attributing factors for the low performance could be:

- ⇨ Lack of knowledge or awareness about mental retardation and proper, treatment of children with mental retardation,
- ⇨ Lack of economy,
- ⇨ Lack of adequate training and absence of incentives or encouragement for teachers,
- ⇨ Lack of proper screening and identifying instruments and techniques,
- ⇨ Absence of access for practical exercise, like lack of play ground, rooms, toilet, resource room, social service, water supply, provision of materials and facilities and adequate trained human power,
- ⇨ Absence of well-coordinated family-school effort.

d) Parents and Teachers' Experience

Majority of parents experienced dashed economy and impoverished psychosocial family atmosphere, slum and unhealthy living quarters (particular to Addis Ababa). Most parents of the children do not know the scientific understanding of mental retardation, its etiology and the appropriate psychosocial techniques of treating such children.

The special education teachers seem to be qualified and experienced, but at despair because of lack of attention by the respective state organs and absence of any sort of encouragement like opportunity for further training, provision of facilities/social services for the children etc

.

e) **Adaptive Behavioral Scale 1992E**

The adapted Adaptive Behavioral Scale 1992E seems appropriate and helpful to be used by educators/parents of the children, teachers of special education (with prior orientation on the procedures and techniques) and by psychologists, as well as sociologists who are concerned with the rehabilitation and intervention of children under consideration.

5.3 Recommendation

As an outcome of the study, the researcher is prompted to make the following recommendations regarding the report and Adaptive Behavior Scale 1992E.

a) **The Report**. It can be used to serve various objectives that focus on the needs of persons with mental retardation. To mention some of the purposes that could be implemented in short term:

1. It can be used as a resource material for trainers of teachers, special education teachers, curriculum developers and educated parents of the children under consideration. It can help them to get some insight about the relevant information/ reconsideration during planning their teaching, designing curriculum materials and treating children with mental retardation.
2. The report can also serve researchers as a resource material or reference.
3. Some of the information can be used for training parents, providing awareness for the schools' academic and administrative staff as well as the society at large.

b) Adaptive Behavior Scale 1992E

1. It can be used by special education teachers' instructors, psychologists and social workers that are concerned with intervention and or rehabilitation of the children under discussion, with some improvement and orientation.
2. The scale can serve curriculum developers, special education teacher trainers of various levels as a reference or resource material.
3. It can also help educated parents and special educators to screen the needs of children, to design plan and implement appropriate intervention according to the potential abilities and needs of the respective child with some orientation.
4. In the long term, it can serve as a stepping stone to develop Ethiopian adaptive Behavior scale.

c) The Need of Attention

1. The researcher believed that due attention has to be given to the promotion of awareness to educators of primary to university level, officials of various levels, parents and the society at large. Finally the researcher cordially calls up on, scholars of Addis Ababa University and other concerned institutions to open their eyes and stare at researching for the development of some standardized tests that could serve for checking individuals' cognitive development and Adaptive behavioral characteristics, that is their potential aptitude etc.

2. Last but not least, in the long term, it would be worthy, if the government pays due attention to:

- ⇨ accepting the case in point, as an important social problem that needs urgent solution and render practical effort accordingly,
- ⇨ implementing the rules and regulations of United Nations on the right of children ,
- ⇨ Proper application of the policy of the Federal Republic of Ethiopia on the related issue.

APPENDICIES

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Appendices

Appendix - 1

Data Collection Guide

For Adaptive Behavior Assessment study 1992E

Introduction - Caring for children and Youth with disability in Ethiopia seems not yet got much attention. From this regard the activities concerning children and youth with mental retardation appeared to be at its early stage. Not adequate research is done; the society is not made to be aware of mental retardation and treatment of the respective children. Formulated assessment techniques and procedures are not introduced to the Ethiopian culture. With the cognizant of this reality the following instruments are developed (and some are adapted) for the data collection of this study. It is hoped that it would contribute for the development of Ethiopian adaptive Behavior Scale.

1. **ABS** [ተባመሚ - 1992 E] - An adaptive behavior scale adapted from the scale developed by Lambert and Lewis 1975 edition, and translated into amharic.

   The original ABS 1975 has two categories and 24 sub-domains. In category one there are 66 items, and in category two 44 items making a total of 110. The adapted scale also has two main parts and 20 domains. In part one and two there are 40 items and 25 items respectively. It makes a total of 65.

2. **Interview questions** - To enrich the reliability and validity of the adapted scale interview for parents coded as [02] and for teachers coded as [03] were developed. They have open-ended semi-structured items of 15 and 12 respectively. In addition to this casual conversation will be entertained.

3 According to the necessity document inspection could be used. Since each instrument has its own characteristics and objective, instruction is prepared for each.

Instruction on how to use the Instruments

1.1 Part one [01 - 1]

As briefed earlier, part one has 40 items. So as to be successful, attention should be given to the following specific instructions.

1.1.1 First of all the observer should familiarize her/himself with each specific instruction below and comprehend them very well.

1.1.2 The sample children should be drawn from children who have been in the programe for one year. To decide whether the expected behavior manifestation is consistent or not continuos and repeated observations are needed. During the observation the observer has to mark [X] in the space against each characteristics under the respective column and number [3, 2, 1, 0].

1.1.3 Checking the manifestation of behavioral activities, which occurred either with out support or with some helps, the observer has to mark [X] under the respective column and number against each item. [NB. The calculation of mean score value will be done later by the researcher].

For example - Feeds self according to the table manner

	With support	with slight support	With much support	No exhibition
	3	2	1	0
- Washes hand before eating	x			
- Sits properly in appropriate place		x		
- Seize food properly and take appropriate piece into mouth			x	
- Chews food mouth close			x	
- Eats with out spilling	x			
Uses utensils appropriately				x

As shown in the example, out of the six activities two threes, two ones, one two and one zero are marked adding to 10. Since their average is 1.3, the value to be written for item is (1). Any way the calculation will be done later by the researcher. The assistant is only expected to appropriately do the marking of Xs.

1.1.4 To decide on the behavioral characteristics of a child one has to make continuous observations both at home and school, inside classroom and outside room activities. Interaction of the child with family members, peers, etc has vital importance. The observer is expected to make decision, only on the basis of the observation.

1.2 Pat two - This part has 25 items if the listed characters are frequently displayed write (2) under the word often against the sub item. If the behavior is rarely manifested write [1] under the word rarely. If the behavior is never displayed write [O] under none, against the respective item. There after, add the numbers and write the sum total against the space for total.

	Often	rarely	None
E.g. - Does not care for own property		1	
- tears cloth	2	-	
- Makes cloth dirty	-		
- Tears, books, newspapers etc.	2		
Total			5

NB - **Often** refers to continuous and frequent exhibition of the character

Rarely stands for those behavioral characteristics manifested not persistently.

None - refers to non - exhibition of the expected behaviors

2- **Parents' interview [02]** - This instrument consisted open ended and semi - structured items, which are assumed to enable the researcher, obtain information on related social, psychological, economic, bio-physical and academic condition of the children.

Instructions 1- First introduce yourself, and the objective of the study. Then establish rapport, by telling them that the information will be used only for the welfare of the children. Their names will be coded and kept confidential.

2- Attempt to interact as part of the family. This would help parents to feel at ease and be open to the data collectors.

3- Pose the theme items and take the responses of the parents. Some times the parents may require provoking to involve themselves in casual conversation. So, attention should be given to it.

4- If there is a need, document inspection and or reference can be made.

3. **Teachers' interview [03].** It include open ended items that are assumed to help the data collector obtain information on the child's ability, need, behavior and the behavioral characteristics at school since his/her entry to school.

Instruction - 1 - Introduce your self and the objective of the study. Then start the interview by posing the interview questions step by step. Record the respective responses.

2. If there is a need for sifting some information, it is possible to interview the respective informants again on the particular issues.

Note - The observation may be extended up to one day before the last day of stay in the respective sample site.

- It will last for about a month in each site.

- If there appeared a need for rechecking, it is possible to do it accordingly.

- Check the proper accomplishment of the data collection according to the instruction.

- The observation should include both moderate and participatory Observation

- Pay attention to make remark, when a child lacks access to practice/exhibit the expected behavior due to parents' over protection or if the activity is not in accordance to his/her age.

Appendix - 1-1

Adaptive Behavior Scale 1992 E Part - 1

Item No.	Behavioral Characters to be observed	Without support	with slight support	With much support	No exhibition
		3	2	1	0
1	**A - Independent functioning**				
	Self feeding according to the table manner				
	- Washes hand and face				
	- Sits appropriately				
	- Seizes the food and takes appropriate piece into mouth				
	- Put the seized piece in to mouth properly				
	- Chews food with mouth close				
	- Eats with out spilling				
	- Uses utensils properly				
2	Manages eating with others				
	- Washes hands				
	Sits properly in a proper place				
	- Takes turn in group work				
	- Eats without spilling				
3	Manages drinking with out spilling				
	- Puts water in a required material				
	- Holds a beaker/glass with one hand				
	- Drinks without spilling				
	- puts down the utensils appropriately				
4	Manages self care at toileting				
	- Uses toilet when needed				

Item No.	Behavioral Characters to be observed	Without support	with slight support	With much support	No exhibition
		3	2	1	0
	- Adjust his/her cloth accordingly				
	- Sits on toilet seat with out help				
	- Uses toilet tissue/water according to culture and puts on clothes				
5.	Controls bladder				
	- Goes to toilet and urinate				
	- Adjusts his/her clothes with out support				
	- Puts on clothes after defecation				
	- Washes hand of water is available				
6.	Cleanliness				
	- Washes hands and face				
	- Identifies, and uses materials necessary for washing				
	- Washes hand				
	- Washes face				
	- Brushes tooth				
	- Dries face and hand				
7.	Bathing				
	- Takes baths unaided				
	- Washes whenever touches dirt				
	- Has no unfavorable odor				
8.	Keeps hair and teeth clean				
	- Combs hair				

Item No.	Behavioral Characters to be observed	Without support	with slight support	With much support	No exhibition
		3	2	1	0
	- Brushes teeth regularly				
9	- Dressing				
	- Dresses self				
	- Chooses the appropriate cloth and dresses self				
	- Manages following the proper Procedure of dressing.				
	- Wears shoes independently				
10.	Undresses his clothes				
	- Undresses clothing according to the type and sequence				
11	**B - Physical Development**				
	Sensory Development				
	- Can see as required				
	- Can see at distant with out magnifying glass or other support				
12	- Able to hear as required				
	can hear with out hearing aid				
	- Can hear at a distance of 2 meters				
	- Hears with out hearing aid or other support				
13.	- Motor Development				
	- Sits straight, keeps balance				
	- walks straight				

Item No.	Behavioral Characters to be observed	Without support	with slight support	With much support	No exhibition
		3	2	1	0
	- Stands on one foot for 1-2 seconds (if asked)				
	- Physical development is in agreement to the chronological age				
14	- Eye hand coordination				
	- Catches ball thrown from 1-2 meters distance				
	- Throws ball overhand				
	- Lifts a cup or a glass with one hand				
	- Grasps coins with thumb and finger				
	- Paints color				
	- Puts thread into a needle				
15.	- Eye - foot coordination				
	- Kicks a ball from hand				
	- Supply a ball by kicking				
	- Kicks back a ball supplied From near distance (1-2 meter).				
16.	Travel				
	- Goes to school independently				
	- Returns from school by self				
	- Manages addressing message				
	- Tells own home address				
17.	**C. Economic Activity**				
	Manager using money				

Item No.	Behavioral Characters to be observed	Without support	with slight support	With much support	No exhibition
		3	2	1	0
	- Identifies notes of 5 Birr up to Birr at least				
	- Manages changing notes				
	- Identifies the purpose and value of money				
	- Manages purchasing				
	- Manages demanding change during shopping				
	- Identifies the difference among coins				
18.	Addresses Message				
	- Goes on errands				
	- Manages to address information by own initiation				
	Manages shopping/ purchasing items from different shops or persons in small open market (Gulit)				
	D - Language Development				
19.	- Expresses his/her feelings by gesture				
	- Expresses his/her agreement through smiling				
	- Expresses his/her satisfaction by gestures				
	- Expresses his/her pleasure or angry by gesture or vocal noise				

Item No.	Behavioral Characters to be observed	Without support	with slight support	With much support	No exhibition
		3	2	1	0
20.	Expresses himself through speech				
	- Speaks controlling the tune of voices				
	- Constructs short sentences and expresses self				
	- Speaks with out blocking and halting				
	- Asks question using words such as why, how, what.				
	- Speaks using simple sentence, containing because' etc.				
	- Understands others				
	- Listens attentively				
	- Remembers what she/he heard				
	- Can tell what she/he understood				
22.	- Follows rules and regulations				
	- Follows direction				
	- Understands sequential procedures				
	- Knows polite way of greeting				
	- Thanks when she/he gets her/his wants				
	- Asks politely when she wants some thing				
23.	**E - Academic Activities**				
	Uses numbers				
	- Counts by finger				
	- Identifies few from much				

Item No.	Behavioral Characters to be observed	Without support	with slight support	With much support	No exhibition
		3	2	1	0
	- Counts more than 20				
24.	Writes				
	- Writes letters				
	- Identifies words				
	- Writes words and simple sentences				
	- Copies what is given				
	- Manages writing dictation				
25.	Under stands time concept				
	- Names period of the day				
	- Associates activities with period of a day,				
	. to morning				
	. to noon				
	. to evening				
	- Names the days of a week understands the purpose of watch.				
26	- Computes simple arithmetic and comprehends idea				
	- Manages simple addition				
	- Manages simple subtraction				
	- Manages simple multiplication				
	- Reads simple or short sentences				
	- Comprehends the idea of simple sentences				
27.	F. **Domestic Activities**				

Item No.	Behavioral Characters to be observed	Without support	with slight support	With much support	No exhibition
		3	2	1	0
	Manages cleaning house				
	- Mop floor/clean house independently				
	- Mop floor/clean house with others				
	- Takes care of the cleanliness of the house				
28.	Washes own cloth				
	- Washes handkerchief, sock, towel etc.				
	- Attempts to wash own clothes				
	- Washes others' clothes				
	- Dries clothes				
	- Checks the dryness of the washed cloth and collect them				
	- Washes used utensils after meal.				
29.	Participates in simple food preparation				
	- Attempts to prepare some single food				
	- Prepares simple food together with others				
	- Makes own bed				
	- Washes house hold utensils				
	- Cooperates if asked,				
30.	**G. / Prevocational activities/ semi vocational**				

Item No.	Behavioral Characters to be observed	Without support	with slight support	With much support	No exhibition
		3	2	1	0
	Does simple tasks according to instruction				
	- Performs simple work (semi vocational activities)				
	- Does manual labor together with others				
31.	Has vocational ethics				
	- Obeys to orders accordingly				
	- Plays following rules and procedures				
	- Does not leave work with out reason				
	- Obeys to the work discipline				
32.	**G. Self Direction**				
	- Works by own initiation				
	- Has positive attitude towards work				
	- Is sociable and cooperative				
	- Explores surrounding and does the necessary task by own initiation				
	- Manages coordinating by own initiation				
33.	Passivity				
	- Does not go absent minded accidentally				
	- Seems to have interest in every daily activity				

Item No.	Behavioral Characters to be observed	Without support	with slight support	With much support	No exhibition
		3	2	1	0
	- Pays attention to work/play				
34	Has perseverance and persistence				
	- Does not become easily discouraged				
	- She/he is not disturbed				
	- Pays attention and concentration to practical activities				
35	I. **Responsibility**				
	Responsible for self property				
	- Identify self property				
	- Cares for own belongings				
	- Cares for self				
36.	Feels responsible for others and their property				
	- Cares for friends property				
	- Attempts to care for families and friends				
	- Cares for families' property				
	- Attempts to settle/mediate quarrel between friends				
37	Responsible for government property				
	- Cares for school property				
	- Reports about observed problem to concerned party				

Item No.	Behavioral Characters to be observed	Without support	with slight support	With much support	No exhibition
		3	2	1	0
	- Tells an observed problem to friends				
38.	**J. Social maturity**				
	Sociable to others				
	- Considerate				
	- Cooperative by own initiative				
	- Cooperates when asked				
	- Interacts with other				
39	Participates in social life activities				
	- Actively participate in group play				
	- Plays with others at least for short period				
	- Always participate in games and competitions				
	- Follows rules and regulations in playing with friends and others				
	- Plays with peers peacefully				
40.	Selfishness				
	- Does not perceive himself more important /superior than others				
	- Does not refuse to share ball etc. with others				
	- Does not undermine others				
	- Does not avoid others in group work				

Appendix - 1.2

Observation [01 - 2]

Part - 2

Part two consists 25 items Instruction is given in the guide manual.

		often	rarely	none	sum
1	A - Violent and Destructive Behavior				
	Threatens or does physical violence				
	- uses threatening gesture				
	- indirectly causes injury to others				
	- spits on others				
	- pushes, and scratches, pinches others				
	- pulls others' hair, ears etc				
	- bites others				
	- kicks, slaps others				
	- uses objects against others				
	- disturbs others not to play				
	Total				
2	Damages personal property				
	- rips, tears own clothing				
	- soils own property				
	- tears magazines, books or other possessions				
	- does not differentiate own property from others				
3	Damages others' property				
	- Tears, rips, soils, others' property				
	- Tears up others' exercise book, text, magazine or other property				

		often	rarely	none	sum
	- damages or breaks windows, doors, desks, tears books and other property of the school				
	- damages toilet, taps or well water				
	- spoils garden, flowers and fence				
	Total				
4	Temper tantrums				
	- cries and screams				
	- Throws self on floor, screaming and yelling				
	- stamps feet, screaming and yelling				
	Total				
	Total - A				
5	**B. Antisocial Behavior**				
.	Teases or Gossips about others				
	- Gossips about others				
	- Teases others				
	- Picks on others				
	- Makes fun of others				
	- Bosses or manipulates others				
	- Tells others what to do				
	- Causes fights among other people				
	- Manipulates others to get them in troubles				
	Total				
6.	Disrupts others' activities				

		often	rarely	none	sum
	- Is always in the way, or ready for disturbance				
	- Interferes with others' activities				
	- Knocks around activities that others are working with.				
	- Uncomfortable for others				
	- Turns radio/phonographs TV. too loudly				
	- Makes loud noises while others are reading or engaged in other tasks				
	- Talks too loudly				
	- Sprawls over furniture or spaces needed by others				
	Total				
7.	Uses Angry language				
	- Uses hostile and angry language/expression like stupid dirty, pig etc				
	- Swears, curses, yells or screams attempts threats of violence				
	- Verbally threatens others				
	- Attempts physical violence				
	Total				
	Total - B				
	C. Rebellious behavior				
8.	- Ignores regulations or regular routines				

		often	rarely	none	sum
	- Has negative attitude toward rules				
	- Unless forced by other She/he is not willing to go through lines				
	- Violates rules and regulations				
	- Refuses to participate in required activities				
	- Resists following instruction				
	- Gets upset if given a direct order				
	- Plays deaf and does not follow /does not pay attention to instruction				
	- Refuses to work on assigned subject				
	- Hesitates to do assigned task				
	- Does the opposites of what was requested				
	Total				
9.	Has impudent or rebellious attitude toward Authority				
	- Has negative attitude to monitors, unit leaders, directors				
	- Mocks people in authority				
	- Says he can fire people in authority				
	- Says relative will come to kill or harm persons in authority.				
	Total				
10.	Is absent from or late for, the proper assignment or place				
	- Is late to required places or activities				
	- Fails to return to places where he is supposed to be after leaving				

		often	rarely	none	sum
	- leaves place of required activity with out permission				
	- Attempts to run away from class				
	- Attempts running away from school				
	Total				
11	Misbehaves in group settings				
	- Interrupts group discussion by talking about unrelated topics				
	- Disrupts or play game or play refusing to follow rules				
	- Group activities by making loud noises or by acting				
	- Does not contribute in the group				
	- Shows negative attitude toward group participation				
	- Reflects dictatorship				
	Total				
	Total - C				
	D. Untrustworthy Behavior				
12.	- Takes others' property without permission				
	- Twists the truth to own advantage				
	- Cheats in games, tests assignments				
	- Lies about situations				

		often	rarely	none	sum
	- Lies about others				
	- Takes others' belongings if not kept in place or locked.				
	- Takes others' belongings from pocket				
	- Tares others' property by cheating				
	Total				
	Total - D				
13.	**E - Withdrawal** Is inactive				
	- Sits/stands in one position for a long period of time				
	- Does nothing but sit and watch others				
	- Fails asleep in a chair				
	- Lies on desk all day				
	- Seams unaware of surroundings				
	- Is difficult to reach or contact to anything				
	- Is apathetic and unresponsive in feeling				
	- Has a blank stare				
	- Has a tired expression				
	- Does not mix with others prefers to be alone				
	Total				
14.	Is timid and shy in social affairs				
	- Hides face in group situations eg. parties, group of gatherings,				
	- Prefers to be alone				

		often	rarely	none	sum
	- Keeps aloof in others' presence, seems shy to talk in the presence of others.				
	Total				
	Total - E				
15.	**F - Stereotyped behavior** - Has stereotyped behavior				
	- Taps feet continually				
	- Drums fingers				
	- Has hands constantly in motion				
	- Slopes, scratches, or rubs self continuing				
	- Waves or shakes parts of the body repeatedly				
	- Paces the floor				
	Total				
16.	Has peculiar posture or odd mannerism				
	- Holds head tilted				
	- Has defective posture				
	- Has small/big head, small/big eyes and or ears, rounded face				
	- Sits with knees under chin				
	- Walks/sits with hands on head or finger in ears				
	- Lies with feet up in air				
	- Walks on toes				
	Total				
	Total - F				

		often	rarely	none	sum
17	**G - Unacceptable vocal habits** Has disturbing vocal habits				
	- Giggles hysterically				
	- Talks to self loudly				
	- Makes growling, humming or unpleasant noises				
	- Talks loudly or yells at others				
	- Makes disturbing noise				
	Total				
	Total - G.				
18.	**H - Eccentric habits** Has strange and unacceptable habits				
	- Smells everything				
	- Inappropriately stuffs things in pockets, suits, dresses				
	- Drools				
	- Grinds teeth				
	- Spits on floor				
	- Bites finger nails				
	- Chews or sucks other parts of the body				
	- Puts everything in mouth				
	- Chews or sucks clothing or other in edibles				
	Total				
19.	Removes or tears own clothing				
	- Tears off buttons, or zippers				
	- Undress at the wrong times and places				

		often	rarely	none	sum
	- In appropriately removes shoes and socks				
	- Refuses to wear clothing				
	- Stands in a favorite spots eg. by windows, by door				
	- Is overly particular about places to sit or asleep				
	- Does not want to be touched				
	- Afraid anything that vibrates				
	Total				
	Total - H				
20.	**I. Self abusive behavior** does physical violence to self				
	- Bites or cuts self				
	- Slaps or strikes self				
	- Bangs head or other parts of the body against objects				
	- Pulls down hair, ears, etc...				
	- Scratches or picks causing injury				
	- Soils or smears self				
	- Pokes objects in own ears, eyes, nose or mouth				
	- Purposely provokes abuse from others				
	Total				
	Total - I				
21.	**J. Psychological Disturbances and use of Medication** Tends to over estimate own abilities				
	- Does not recognize own limitations				
	- Has too high opinion of self				

		often	rarely	none	sum
	- Talks about future plans that are unrealistic				
	- Boosts about self				
	- Wants excessive praise				
	- Is jealous of attention given to others				
	- Demands excessive reassurance				
	- Acts silly to gain attention				
	- Wants praise to any of his activities				
	Total				
22	Reacts poorly to frustration				
	- Blames own mistakes on others				
	- Withdraws or pouts when thwarted				
	- Becomes upset when thwarted				
	- Throws temper tantrum, when does not get own way				
	- Complains of unfairness even when equal shares or privileges have been given				
	- Says "every body picks on me"				
	- Says ' people talks about me"				
	- Says people are against me				
	- Acts suspicious of people				
	Table				
23.	Complains about illness around the lower part of belly and backbone.				
	- Complains about imaginary physical ailments				
	- Pretends to be ill, feels as if seek				
	- Acts sick even after illness is over				
	Total				

		often	rarely	none	sum
24.	Has other signs of emotional instabilities				
	- Changes need with out aparent reason				
	- Seems to have no emotional control				
	- Appears insecure or frightened in daily activities				
	- Talks about people or things that cause unrealistic fear..				
	- Talks about suicide				
	- Makes attempt at suicide				
	Total				
25.	Uses Medication				
	- Uses prescribed medicine				
	- Uses tranquilisers or depressants for epileptic seizure				
	- Uses sedatives				
	- Uses stimulants				
	- Uses anti convulsant drugs				
	Total				
	Total - J				

Adaptive Behavioral Characteristics Assessment Study

Data Collection Form - 02

Interview for Parent,

A - Regarding Demography of informants

1. Relation - 1.1 Mother 1.2 Father 1.3 Caretaker
2. Sex - 2.1 Female 2.2 Male
3. Age_________
4. Education 4.1 literate 4.2 illiterate
5. Marital Status 5.1 Married 5.2 Divorced 5.3 Separated
6. Are employed? __________
7. Would you tell me how much your monthly income is? ______

B - Regarding Children

8. When did you identify the problem of the child? _____
9. How did you identify the retardation? _____
10. What are the measures you have employed?
11. Would you tell me what your child was not able to do before joining the program? _________________
12. What do you think are the possible causes? ______________
13. What improvements did the child made after joining the intervention program? ___________
14. Would you explain what you understand by mental retardation and What you feel when you see children with mental retardation?
15. What would you suggest to be done for the future?
    1. From the parents/families.
    2. from school teachers
    3. from society
    4. from government

Adaptive Behavioral Characteristics Assessment Study

Data Collection Form - 03

Interview for Teachers,

A - Regarding Informants Demography

1. Sex - 1.1 Female 1.2 Male
2. Age________
3. Marital Status - 3.1 Married 2.2 Divorced 3.3 Separated
   3.4 Unmarried
4. Monthly income_________
5. Training - 5.1 Formal__ 5.2 Special Education 5.3 Both_____
6. Service - 6.1 Formal__6.2 Special Education 6.3 Total___

B - Regarding Children

7. Date of entry into the program (special education)
8. Was the background history of the child assessed? _______
9. If yes, what did you understand about,
   - 9.1 Period of on-set and or identification of the condition?
   - 9.2 Level of retardation
   - 9.3 Focus of training
   - 9.4 Methods used to identify mental retardation level of retardation.

10. Improvements after intervention
    - 10.1 Physical and motor activities
    - 10.2 Social maturity activities
    - 10.3 Language and communication
    - 10.4 Academic functioning
    - 10.5 Attention, concentration and memory

11. What do you think should be done to property identify and carefully treat children with mental retardation?

11.1 From parents/families

11.2 From school teachers

11.3 From societies

11.4 From government

12. What is the method you and your school use to identify children with mental retardation?

Appendix - 4 Academic Skills Test

copy

1) 0 1 2 3 4 5 6 7 8 9 (10)

2) 10 20 30 40 50 60 70 80 90 100 (10)

Add

3)

1	2	3	4	5	
+2	+ 2	+ 4	+ 4	+ 5	(10)

Subtract

4)

4	5	8	9	10	
- 2	- 3	- 4	- 5	- 6	(10)

Multiply

5)

2	4	5	4	5	
x 2	x 2	x 2	x 3	x 3	(10)

Divide

6) 4 ÷ 2 6 ÷ 2 8 ÷ 2 6 ÷ 3 9 ÷ 3 (10)

Copy

7) ሀ ለ መ ሠ ሰ ሸ ገ ነ ደ ፀ (10)

8) አበበ መጣ

በላይ ሄደ (10)

ንጋቷ ምሣ በላች

ጌታ ዓለም ተማሪ ነው

9) ( ) ( ) ( ) ( ) ( ) (10)

10) S F G N W A B T K z (10)

Academic Achievement

Case	X	X - X	(x-x) ^{2}
A			
1	75 -52=	23	579
2	25 -50=	-27	729
3	70 -52=	18	324
4	10 -52=	42	1764
5	90 -52=	38	1444
6	80 -52=	28	784
7	15 -52=	-37	1369
8	75 -52=	23	529
9	0 -52=	-52	2704
10	10 -52=	-42	1764
11	90 -52=	38	1444
12	85 -52=	33	1089
	$\sum x$=625 - 52		$\sum x^2$ = 8512
	× = 52 N = 12.	SD=7.6	

Academic Achievement

Case	X	X - X	$(x-x)^2$
B			
1	75 -74=	1	1
3	25 - 74=	-49	2401
5	90 -74=	16	256
6	80 -74=	6	36
11	90 -74=	16	256
12	85 - 74=	11	121
	$\sum x = 445$	N = 6	$\sum x^2 = 87.5$
	$x = 74$	SD = 9.2	

Case	X	$(x - x)$	$\sum (x-x)^2$
C			
2	25 - 225=	2.5	6.25
4	10- 22.5=	-12.5	156.25
7	15 - 22.5=	-7.5	56.25
8	75 - 22.5=	-52.5	2752.25
9	0 - 22.5=	-22.5	506.25
10	10 - 22.5=	-12.5	156.25
	$\sum x = 135$	$\sum x^2 =$ 1797.50	
	N = 6	$x = 22.5$	SD = 10

$$SD = \sqrt{\frac{\sum (x - x)^2}{N}} = \sqrt{\frac{3071}{6}}$$

$$= \frac{55.4}{6} = 9.2$$

$$\sum x^2 - 36 \times 7.6 \quad SD = \sqrt{\frac{3637.5}{6}}$$

$$SD = \frac{60.3}{6} = 10$$

$$= 10$$

Performance Score of the Children in Adaptive Behavior

Case	X	X - X	$(x-x)^2$
B			
1	82	-3.5	12.25
3	79	-6.5	42.25
5	88	2.5	6.25
6	88	2.5	6.25
11	90	4.5	20.25
12	86	0.5	0.25
	$\sum x = 513$	N = 6	$\sum x^2 = 87.5$
	$x = 85.5$	SD = 1.5	

Case	X	$(x - x)$	$\sum (x-x)^2$
C			
2	46	7.5	56.25
4	33	-5.5	30.25
7	31	-7.5	56.25
8	67	28.5	812.25
9	10	-28.5	812.25
10	44	5.5	30.25
	$\sum x = 231$	$\sum x^2 = 1797.50$	
	N = 6	$x = 38.5$	SD = 7

Analysis of Correlation

A - Sample Children With Mental Retardation

Case	x	x^2	Y	Y^2	EXY
1	82	6724	75	5625	1150
2	46	2116	25	625	1150
3	79	6241	70	4900	5530
4	33	1089	10	100	330
5	88	7744	90	8100	7920
6	88	7744	80	6400	7040
7	31	961	15	225	465
8	67	4489	75	5625	5025
9	10	100	0	0	0
10	44	1936	10	100	440
11	90	8100	90	8100	8100
12	86	7396	85	7225	7310
$\Sigma X = 744$		$\Sigma x^2 = 5464$-	$\Sigma Y = 625$	$\Sigma Y^2 = 47025$	$\Sigma XY = 49460$

$$\frac{r = N\sum X\,Y - (\sum X)(\sum Y)}{\sqrt{\left[N\sum x^2 - (\sum x)^2\right.\ \left[N\sum Y2 - \left(\sum Y\right)^2\right]}} \qquad \frac{= 12\,(49460) \quad - \quad (744)\,(635)}{\sqrt{\quad 12\left[54640) - (744)^2\right]\left[12\left(47025\right) - \left(625^2\right]\right.}} = \frac{128520}{1331191} = r = 0.9$$

B - Educable

	X	X^2	Y	Y^2	ΣXY
1.	82	6724	75	5625	6150
3.	79	6241	70	4900	5530
5.	88	7744	90	8100	7920
6.	88	7744	80	6400	7040
11	90	8100	90	8100	8200
12	86	7396	85	7225	7310
	ΣX=513	ΣX^2=43949	Σ^2=490	ΣY^2 =40350	ΣXY=42050

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{[N\sum X^2 - (\sum X^2)][N\sum Y \quad - (\sum Y)^2]}}$$

$$= \frac{6 \ (42050) - (513) \ (490)}{\sqrt{6\ [439497 - 263169\ ]\ [242100 - 240100]}}$$

$$= \frac{930}{\sqrt{\ (525\ )(\ 2000\ )}} = \frac{930}{\sqrt{105000}}$$

$$= \frac{950}{1084.6} = 0.9$$

C - Trainable

	X	X^2	Y	Y^2	ΣXY
2.	46	2116	25	625	1150
4.	33	1039	10	100	330
7.	31	961	15	225	465
8.	67	4489	75	3225	5025
9.	10	100	0	0	0
10.	44	1936	10	100	440
	ΣX=513	ΣX^2=10691	ΣY=135	ΣY^2 =9400	ΣXY=7360

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{[N\sum X^2 - (\sum X^2)][N\sum Y \quad - (\sum Y)^2]}}$$

$$= \frac{6\ (7360\ ) - (231\ )\ (135\ )}{\sqrt{6\left[10691 - (231)^2\ \right]\left[6\ 9400 - (135)^2\right]}}$$

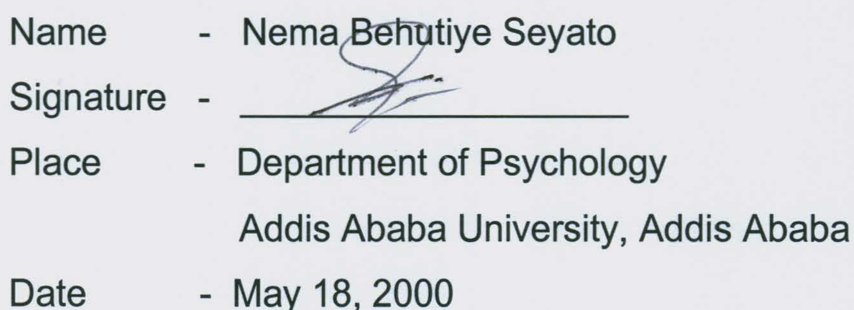
$$= \frac{44160 - 31185 = 12975}{\sqrt{[\ 64146 \quad - 53661\ ]}}$$

$$= \frac{12975}{\sqrt{(\ 10785\ )(\ 26175\ )}} = \frac{12975}{)282297375}$$

$$= \frac{12975}{16801.7} \qquad r = .8$$

Declaration

I here by declare that the thesis is my original work, has not been presented for a degree in any other university and that all sources of material used for the thesis have been duly acknowledged.



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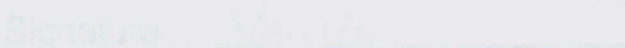
Date - May 18, 2000

This Thesis has been submitted for examination with my approval as university advisor.

Name - Dr. Yusuf Umer Abdi - Associate Professor

Signature ________________



Place - Department of Psychology -

Addis Ababa University - Addis Ababa.

Date of Submission - May 18, 2000