

**METHODS IN TRAINING ADAPTIVE
BEHAVIOR SKILLS FOR CHILDREN
LABELED
“MODERATELY MENTALLY RETARDED”**

**A THESIS SUBMITTED TO THE SCHOOL OF
GRADUATE STUDIES OF ADDIS ABABA
UNIVERSITY, DEPARTEMENT OF
PSYCHOLOGY**

**IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS IN SPECIAL NEEDS
EDUCATION**

TIMNIT LULU



JUNE, 2005


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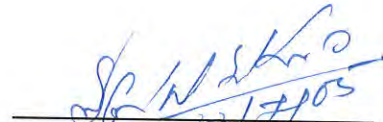
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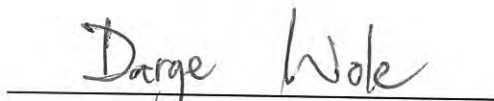
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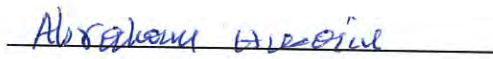

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Acknowledgment

I would like to take this opportunity to thank my advisor Dr. R.S Kumar for his valuable and constructive comments which has helped me enormously in producing this thesis.

My appreciation and thanks goes to the special education teachers at Sebste Negassi and Belay Zeleke no.2 primary schools special units who had given me their precious time to share their experiences.

I am particularly grateful for my family members. Their contributions are acknowledged with many thanks. Thank you all.

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Abstract

This study is aimed at investigating the methods used in training adaptive behavior skills to children labeled “moderately mentally retarded” at Sebste Negassi and Belay Zeleke no. 2 primary schools special units.

The subjects of this study are thirty one children (17 boys and 14 girls) with moderate mental retardation and four teachers (two from each unit) who have special education training to teach children with disabilities (including those with mental retardation). Both were selected using purposive sampling method. Three data collection instruments were used –interview, document analysis and observation checklist. In order to analyze the data both qualitative and quantitative analysis were used.

The result showed that teachers at both special units use different methods to train these children to function independently in attaining the abilities of self-care, communication, motor, personal\social and functional academics. Examples of the methods used were task analysis, modeling\demonstration, prompting(verbal and physical)question and answer method ,providing different examples with in the children’s experience,etc.

The result also showed that the children’s level of functioning after the training on adaptive behavior skill areas mentioned earlier given has showed a significant improvement. Moreover the result showed that teachers face problems in teaching these children because of their uncooperativeness, restlessness, absenteeism, lack of teaching aids and lack of support from parents in encouraging their children practice the skills they are trained of at home.

This study concluded that the training on adaptive behavior skill areas has made the children function independently, and the methods that are used have helped in presenting the lesson in a way the concepts could be grasped by the children.

At last this study recommended that support from parents of children with mental retardation is mandatory in the teaching and learning process.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Every individual in a democracy has fundamental right for not only maintenance by way of physical up keep, but also for proper education or training so that he\she is allowed to grow as much as possible to become a useful citizen standing on owns feet. This is not different for persons with disabilities. For instance, the United Nation Convention on “The Rights Of The Child” stated that, persons with disabilities have the right to education whatever the origin, nature and seriousness of their disability is (Taddesse, 1991). However, according to Radda Barmen (1999), these children are deprived of their fundamental rights to education.

Historically speaking, organized attempts to train children who are mentally retarded perhaps began in modern times by the work of Jean Mark Itard (1774-1838). He has worked for five years with a 12-year-old retarded boy, Victor, who was abandoned by his parents and was wandering in the forest of Aveyron, France. Itard, a sensationalist, environmentalist, and a physician, considered the boy’s animal-like behavior to be due to lack of socialization and education, resulting from years alone in the forest, and therefore is remedial. While he had some success in teaching Victor, most authorities ever since come to believe that the boy was severely mentally retarded and cannot be trained. But, Itard was successful in getting the boy control his actions and read a few words. To do so, he employed the basic rule of learning since posited by such learning theorists as Thorndike and Hull, “repeated rewarding trial”.

Systematic instruction by Itard and his helper resulted in Victor making appreciable gains judging from what we believe now to have been his very limited intellectual endowment. Although Itard felt his experiment was a failure, teachers of trainable children are still using his teaching procedures. His goals were to develop in Victor language, self-help, and socialization skills. The same three are today recognized as major goals in classes for trainable children. Itard's work has aroused interest in western nations to educate and train retarded individuals (Shanker, 1984). However, in developing nations this was not the case. These children were denied educational opportunity to a great extent and the growth of educational opportunities was slow.

Initially, parents of the mentally retarded children kept their children at home, but after the advent of compulsory school attendance in the middle of 19th century the educable were allowed to attend classes but the trainable or the severely retarded were transferred to residential facilities.

Special education for mentally retarded children historically meant segregated education. The vast majority of special education services available were administered in self-contained classrooms that completely segregated the retarded children from non-retarded peers. Further, these special education services were available primarily to mildly retarded child who was defined as "educable" a term which implied although the child is retarded, he/she could still benefit from some of the traditional academic curricula taught in schools. And also children functioning at lower levels (as determined by IQ tests) were generally excluded from schools because they require "training" in such areas as self-care, language development, gross motor skills and academic readiness. The needs of "trainable" mentally retarded were not within the purview of the education curriculum (Drew et al., 1988).

In the first half of this century, a single intelligence score was often used to diagnose and classify individuals as having mental retardation. However, Doll in 1940s argued that it was essential to distinguish social competency from intellectual ability in classifying persons, so that people with low IQ but adequate ability to adapt to their social and cultural environments would not be labeled as mentally retarded. The American Association on Mental Deficiency (AAMD) later adopted the position that IQ should be used together with assessment of adaptive behavior to determine classification, such that both must be significantly below expected levels for individual's age (Burack et al., 1998).

Schools, which excluded many retarded children for the better part of this century, are now faced with the challenge of providing educational experience that is consistent with the developmental needs of these children. Educational programming has been expanded to include the learning of adaptive skills necessary to decrease individual's dependence on others and increase opportunities for school and community participation (Drew et al., 1988). Although much of time was spent on providing services in different schools these only reached to few children with mental retardation. Accordingly, Ross (1988) as cited in Tirussew (1999) stated that on a survey report of thirteen eastern and southern Africa countries only about 0.1% were enrolled in special school programs.

Deciding what to teach to children with mental retardation in general and moderately retarded in particular and how to teach them may look insurmountable task. According to Heward and Orlansky (1988) some of these children have so many things to learn that professionals may find it difficult to choose among the scores of possible goals. Others may have such limited behavior repertoires and such sensory and/or motoric impairments that professionals may wonder where to begin.

Practitioners in special education and allied professionals had virtually no guidelines for working with children with mental retardation. Fortunately, this is changing rapidly, as several textbooks and professional readers have emerged to describe strategies for this population.

Educational programming for school aged children who are retarded involves a number of interrelated and mutually influencing components. Berine- Smith et al., (1994) stated that educational programs must be designed, implemented, and evaluated systematically so that educators make decisions that have an optimal effect on the development of each child. Such programming requires that educators consider variables related to the student, the teacher and the environment.

The effectiveness of an educational training is dependent upon two major variables: the quality of the curriculum and the training methods employed in implementing the curriculum. The second factor, teaching method, is more critical than the first. This is because a curriculum which is of exceptionally high quality but implemented poorly won't be effective.

The effectiveness of any teaching method is partially dependent upon the personalities of the teacher and the child. Methods which some teacher's use very effectively may not be effective when used by other teachers, and similarly, methods which are successful with one child may not be successful with another child. The teaching strategies used, then, should be selected on the basis of what works in a given situation (Johnson and Werner, 1980).

The educator's goal in teaching is to identify adaptive behaviors for each individual and to structure the educational environment carefully so that the children will learn. According to

Berine- Smith et al., (1994) to meet this goal it involves making decisions about placement, assessment, the learner, curriculum, instruction and evaluation so that the student who is retarded can: -

- ❖ Acquire a wide variety of adaptive skills
- ❖ Learn when and where to use them
- ❖ Generalize specific skills to other settings and
- ❖ Maintain the skills overtime.

The teaching of adaptive behavior skills to retarded children is based on the premise that if these skills are not taught through formal instruction, they will not be learned. For children who are non-retarded, the teaching of these skills is unnecessary because they are acquired through daily experiences (Drew et al., 1988).

The major educational objective is to help moderately retarded children develop constructive skills and behaviors to reduce the behaviors that impede learning and social acceptance. The educational program for the moderately retarded individual is in general less academically oriented than that for the mildly retarded student. And much more emphasis is placed on providing the student with skills that will enable him function in his social environment.

The education of the mentally retarded calls for the use of specific basic methods and media, in accordance with the characteristics of the children (Taylor, 1995). Direct observation of objects and phenomenon is recommended, for the purpose of arriving at a more accurate perception on the part of the pupils, and improving and enriching their experience. In the school curricula, considerable importance is attached to educational outings, walks and visits to museums, exhibitions, historic sites, factories, farms and other places where the children

can be in direct contact with nature and with the physical and social phenomenon that occur in it.

Constant repetition is also another feature of education for mentally retarded, which enables a new fact or habit to be assimilated. Such repetition should avoid monotony, so that the pupils will not lose interest but will learn to react suitably to stimulate arising in different forms. There must also be abundant and varied equipment so that the education can be objective and practical. The basic media are prepared mainly by teachers, from materials offered by the community. Particular mention should be made of educational toys, which prove to be highly interesting to the pupils and which stimulate their mental activity. Basic media are also obtained from other countries to improve the methods and techniques used in their education and training.

Gearheart and Gearheart (1996) have noticed that there are five subject content areas that are common to most curriculum guides for the moderately retarded student: self-help skills, communication skills, personal-social skills, motor skills and functional academic skills.

1.1.1 Related Research Evidence to the problem

It is important for teachers to obtain a perspective. They need to know what methods people have used in the education of the mentally retarded, why they used these methods, how to get the best results from known methods, and how to develop new ones.

Throughout the centuries – ever since the advent of man the human race has had the problem of dealing with those among them who, through disease, accident, or inheritance, were not

endowed with the ability to learn and to function in society as well as the great majority of people. In ancient times the mentally retarded were persecuted, mistreated and neglected. The term 'idiot' derived from the Greek 'idiotas' or 'idios' which implied a 'peculiar individual' hence one to neglect or 'get rid of' was used. However, with the rise of Christianity certain religious groups began to apply the philosophy of the brotherhood of man, and attempted to house, clothe, and feed those among them who were mentally retarded. It was not until the 17th c that society began to organize institutions for them. Very little attempt at educating the mentally retarded was introduced at that time. (Sheerenberger, 1983)

It can rightly be said that the education of the mentally retarded began about 1800. During the 19th c and the beginning of the 20th c we find that the educators of the mentally retarded, and those contributing most of their diagnosis and education, were medical people. Itard, Seguin, Montessori and Decroly were all physicians, yet their major contributions were in the fields of psychological diagnosis and the education of the mentally retarded child. So, in this part we will try to review the attempts of these persons in the education of retarded children.

The Contribution of Jean Marc Itard

At the later part of the 18th c, special education methods were being successfully applied to the deaf. It was at about this time that Jean Marc Itard, a French philosopher and physician working in an institution for the deaf, decided that similar methods of training may have some effect on the education of the mentally retarded. He was inspired by the philosophy of sensationalism and the French post revolutionary belief that man had unlimited possibilities, and that education and environment were the determining factors in mental development.

The philosophical controversies of that age, not too much unlike those of our own, were between the natives and the sensationalists or empiricists. The natives like those of today

who have a hereditarian bias, believed that intellectual functions and knowledge were innate and could not be developed. The empiricists, epistemologists, or sensationalists, on the other hand, asserted that knowledge or intelligence was obtained through the senses and was therefore contingent upon education (Taylor et al., 1995).

Itard, agreeing with the sensationalists, felt that the boy captured in 1799 in the forest of Aveyron was a good example of a human being who was completely untutored, and that with proper education procedures applied to the training of the senses this untutored boy could be made human. By employing the basic rule of learning since posited by such learning theorists as Thorndike and Hull, "repeated rewarding trials" Itard was successful in getting the boy to control his actions and read few words (Sheernberger, 1983). Although he had some success in teaching Victor, the boy, most authorities ever since come to believe that the boy was severely mentally retarded and is not trainable. Nevertheless, Itard's teaching methodology is still modern today and teachers of trainable children are still using his teaching procedure. The goal of Itard was to develop language, self-help and socialization skills that still are recognized as major goals in classes for trainable children.

In general his work shows that the effectiveness of (1) individualized instruction (2) systematic programming of learning experiences and (3) motivation and rewards.

The contribution of Edward Seguin

The second person who contributed to the education of the mentally retarded is Edward Seguin, who was first a teacher, and later a medical and surgical student under Itard. Through the influence and teaching of Itard, Seguin picked up where Itard left off on the development of instructional procedures for the severely retarded. Instead of working with a single boy

like Victor, he established the first public residential facility in France for mentally retarded children and devised a curriculum for them.

Seguin's contribution to the education of mentally retarded is called 'physiological method'. This method of education was based upon the belief that the impaired nervous systems of the retarded could be re-educated by motor and sensory training. He developed extensive didactic materials, asking his teachers to follow his systematic training procedures in a systematic fashion. Nevertheless, he used colors, music and other devices to motivate the child. (Sattler, 1992)

In accordance with his theories he believed that activities must be those, which satisfy the child's own needs, desires, and capacities – a very modern approach to education.

The contribution of Maria Montessori

Montessori, an Italian physician who was an assistant at a psychiatric clinic in Rome where she found a number of mentally retarded children housed in insane asylums became interested in mental retardation. After studying the work of Itard and particularly the work of Seguin, she concluded that the problem of mental retardation was primarily a pedagogical one rather than a problem of medicine (Burack et al., 1998). Advocating this view, she organized the orthopedic school for the cure of the mentally retarded. In this school she not only educated the mentally retarded but also conducted a training center for teachers of the mentally retarded.

Through the construction and use of her own didactic materials, she taught a number of retarded pupils to read and write so well that they were able to be presented for examination at

a school on a level with normal children. The results, according to the reports were miraculous.

'Auto-education' or 'self teaching' was the keynote of the Montessori system. Through the use of such didactic materials as blocks, cutouts, colored objects the children were allowed to teach themselves while the teacher withdrew into the background, merely supervising the activities.

The contribution of O.Decroly

Another physician faced with the treatment of the mentally retarded was Dr.O.Decroly. Like others in the field, he concluded that the best treatment must be an educational program. As reported by his student, Descoedres he believed that the education of the mentally retarded child must center around the child and his needs. (Sheernberger, 1983) He and his fellow workers developed many educational games and activities designed to correct the defects observed in the mentally retarded child by cultivating spontaneous attention and leading the child on to working by himself. Many of the games attempted to develop sensory discriminations, as Itard and others had done, and to train the observations of likenesses & differences. The programs he used were based upon the child's physical and mental constitutions his needs in terms of food, clothing vocational training and so forth and his environment (i.e.) the relation of the child to his family, to his school, and to the society in which he lives. He, like Montessori, attempted to construct curricula based on games in which children were engaged. The difference between the two persons lies primarily in the fact that Decroly emphasized educational games in a natural setting whereas Montessori used didactic materials of a much more formal nature. Thus Decroly can be considered one of the more modern educator of mentally retarded children. (Sattler, 1992)

The contribution of Alice Descoedres

Descoedres obtained her education and interest in the field of mental retardation by working as an apprentice to Dr. Decroly in his school for mentally retarded in Brussels, Belgium. Her philosophy of education of these children and her techniques of education are therefore an extension and implementation of Decroly's work. She believed that these children could be educated in the special classes of the public schools. She enunciated the following principles of education, many of which are very representative of modern philosophical trends in education (Sattler, 1992).

- Education of the mentally retarded must utilize the natural activity of the pupil (“learning by doing”)
- Education should emphasize perceptual knowledge and sense-training in order to add precision to knowledge already acquired, to create new knowledge, and to improve & enrich verbal expression through social activities.
- The 3rd principle was individualization of instruction which does not necessarily mean teaching children individually, but rather the adaptation of instruction to the individual needs of each particular child, whether the instruction is in group or individually.
- The last thing is emphasis on the utilitarian character of teaching. She insisted that the learned activity should be immediately used in actual life if the learning is to take place and become functionally effective.

In general, Descoedres objectives for the education of the mentally retarded and the techniques of teaching represent, to some extent, a transitional period between the sensory and

must practice the skill to mastery. Active student involvement through role-plays, with teacher reinforcement for correct performance and corrective feedback for aspects of performance that are omitted or in need of improvement, builds fluency with the skill. Initially, commercially available or teacher written scripts of the role-play situations may facilitate student Performance (Johnson and Werner, 1980). Training may then move to less structured, non-scripted practice of student generated situations and examples with teacher coaching.

1.1.3 Instructional Methods for Self-Care Skills development

As in any discussion of early education, a major concern of programming for young retarded children is the acquisition of self-care skills, which provide independence in personal care (Tirussew, 2000).

Most families and teachers appreciate having a trainable child learn self-care skills. Though some people may gain emotional satisfaction from doing everything for a retarded child, society does not appreciate unnecessary helplessness. Although it is much easier to do something for a trainable child than to teach him\her do it by himself\herself, an overprotective parent may realize eventually that if his/her grown child is a constant burden neither of them is happy.

By teaching a retarded child self-care skills, we aid in his/her growth toward emotional maturity and social adjustment (Heward and Orlansky, 1988). Although, it is not advisable to spend a great deal of time teaching a child a skill which he can learn far more quickly and happily when he is more mature it is important to spend much of school time teaching self-

care skills that the average child learns incidentally so that it can be a triumph for both the teacher and pupil when each small task has been mastered.

In teaching the four primary areas of self-care skills (feeding, toileting, grooming and dressing) instruction should be designed to show the child how single behaviors are related within an entire matrix of behavior (Drew et al., 1988). The teacher should also plan lessons for repertoires of behaviors, not for isolated skills when planning individualized instruction; the teacher should remember that there is no single correct procedure for performing most self-care skills. Any number of alternative procedures can accomplish a desired goal in a socially acceptable manner. Some of the methods used in teaching a child self-care skills are of utmost importance to avoid too many failures.

1.1.3.1 Methods in training toileting Skills

Many Public School programs, community based vocational and residential programs refuse to accept individuals who are not toilet trained (Haring et al., 1994). By 'toilet training' we mean helping a child learn to stay clean and dry. A child is toilet trained when: -

- He\she knows when to urinate or stool and has learned to hold on so he\she does not go in his\her clothing or on the floor (bowel and bladder control).
- He\she tells people when he\she needs to do his\her toilet or if he\she is physically able goes by himself\herself.
- He\she takes himself\herself to a special place (toilet, pot), removes necessary clothing, 'goes' cleans himself\herself in the customary way, puts his\her clothing back on, and does whatever may be necessary to get rid of the waste.

'Toilet training is important for the development of a child's independence and dignity. Yet it is very often neglected in retarded children. However, this skill has to be taught for several reasons. First, individuals toilet themselves everyday which they are going to use for a lifetime. Second, teaching them to void requires much time and energy from parents, teachers and other caregivers so teaching to perform this skill sequence is helpful to others. Third, the ability to toilet oneself is a badge of independence. The performance of this task not only serves to make individuals feel better about themselves, but often creates a perception in others that they are more competent and capable of learning (Drew et al., 1988).

In general before starting training it is important to consider the readiness of the child's body to control his\her bowel and bladder movements and move on to the training. The following are some of the methods used to toilet train moderately retarded children.

1. Put the child on the toilet seat at the times when she\he is most likely to use it

Before beginning toilet training for several days notice at what time of the day the child shits and pees. Usually there will be certain time when the child usually does so. For example, soon after the first meal of the day. So begin to put the child on the toilet seat at these times, encouraging to pee. Leaving her\him on the seat until she\he 'goes' – or for not more than 10 minutes. If the child 'goes' clap your hands, kiss her\him, show her\him what she\he has done, and let her\him know how pleased you are. If she\he does not 'go', just ignore it. Do not scold or make her\him feel bad, or she\he may begin to fear or dislike the toilet seat, and refuse to use it some other time (Kirk and Gallagher, 1986).

2. Reward and Praise Success

In toilet training as in any form of education it works better to reward success than to punish failure (Werner, 1987). When the child shits or pees where she\he should, give her\him praise, hugs, kisses and other signs of approval. However, make sure that the child knows you are pleased with her\him not because she\he shits and pees but because she\he is staying dry or clean. When training, check the child often to see if she\he is 'dry' or 'clean'. When she\he 'dry' or 'clean', praise her\him and also teach her\him to check herself\himself. When the child has 'an accident' and wets or dirties self do not punish or scold her\him. It is better to quietly clean up the mess or change her\him. At most, say something friendly (but not approving) like, "Too bad! – Better luck next time!"

3. Guide the child's movements with hands – not by tongue

When the child has difficulty carrying out a physical task – for example, lowering pants – do not do it for him\her (It is something he\she can learn to do for himself\herself). And do not tell him\her his\her mistakes or how to correct them. Instead, gently guide his\her hands with yours so that he\she learns how to do it himself\herself (Berine-Smith et al., 1994). ✓

4. Use models, examples, and demonstrations

Setting an example is one of the best ways of teaching especially if the example is set by persons the child loves, admires, and tries to copy (Werner, 1987). Even before children are old enough to be toilet trained, help prepare them by letting them watch their friends use the toilet.

Using a doll that wets is another good way to introduce toilet training. Show the child how the doll pees in the toilet. Or better, asks the child to help you toilet train the doll. Be sure to include each step that will be needed for the child to become as self-reliant as possible.

1.1.3.2 Methods in training dressing and undressing skills

Children with mental retardation, like other children, should be encouraged from an early age to do their own dressing. It is important, however, not to push the child to learn skills that are still too difficult for level of development (Haring et al., 1994).

Children who are slow in their development or who have difficulty with movements may be slower to learn dressing skills. It may seem quicker and easier for anybody to simply put the clothes on the child, without making the child interactive. However, this will only delay the child's development more.

In general, it is helpful to remember that dressing and undressing skills require relatively sophisticated and co-coordinated movements of almost every body part. So, the trainer needs to take time and have patience in helping the child gain dressing skills. According to Kramer and White (1981) as cited in Johnson and Werner (1980) before considering any teaching strategy, thought must be given to the article of clothing to be used in the program. Although the goal of dressing programs is to teach students to put on and remove their own clothing, it may prove helpful to use loose fittings, easy to put on clothing and the like to allow easier movement and greater success in early phases of training. Similarly, the size, shape and location of fasteners may facilitate speed of learning. For example, press together studs (snaps) are easier to open and close than button, but if buttons are to be used it is advisable to use large buttons and make buttonholes extra big. In addition in teaching how to put on socks

“tube socks” (Socks without heels and that stretch) are easier to be used by a child. More over, shoes with Velcro straps make many children to fasten their shoes independently and leather or cloth loop sewed on the heel makes it easier to pull on shoe. In general, in teaching how to put on and take off shoe considering shoes that to fit loosely – about one size too large is important. In training a moderately retarded child dressing and undressing skills different methods are used.

1. Prompting

Almost everyone needs assistance, guidance and instruction to do something but moderately retarded children need more help including in dressing skills as mentioned before. In order to help these children dress and undress themselves prompting is used. In using this method the children are given different types of prompts in accordance with their level of performance. These are physical, verbal and clueing prompts (Jacob et al., 1998). Physical prompts are usually given at the beginning of teaching a new behavior. The teacher gives the child physical assistance initially by holding the child’s hands, or other body parts to teach specific behaviors such as buttoning, tying and taking off clothes etc.... Verbal prompts are given before the occurrence of every step until it leads to the target behavior because some children need only verbal statements describing every step of the behavior that is required to be performed. For example, in teaching unbuttoning, the teacher tells the child “hold the button in your hand...Hold the edge of the shirt with your other hand...pull away the button from the hole...”Some children require only verbal hints (example, “open”, “close”, “zip”, “push”) or gesture clues.

2. Chaining

The broken down steps are sequentially linked with each other to form a chain. Chaining method can be used in two ways-forward and backward (Perry, 1984). In forward chaining method the child is taught the first steps followed by later steps where as in the backward chaining method the child is taught the last step first and the first step last. For example, in putting on a trouser using forward chaining method the child is taught to hold the waistband by both hands, hold the waistband by both hands and put one leg through, holds the waistband and puts through both legs one after the other, holds the waistband and puts through both legs then pulls the trouser up to knee, holds the waist band and puts through both legs and pulls the trouser up to knee and then to hip and holds the waistband and puts through the legs and pulls up to knee, then to hip and waist.

3. Modeling

In this method the children are shown how to do a specific behavior. In using this method children should not be compared with others. The teacher should not use words, which might make the children feel inferior. The teacher should create a situation in which the child naturally observes other children indulging in target behaviors and getting rewards for that behavior (Shanker, 1984).

1.1.3.3 Methods in training Eating and Drinking Skills

Probably no single activity cluster is as critical to the health, education and happiness of children as meal times (Perry, 1984). To be able feed self, a child needs more than control of mouth, lips and tongue. And also needs to be able to sit with head up, pick things up, and take them to mouth.

Of course, each child is an individual, and it is impossible to describe a general pattern of eating and drinking for all children with disabilities including those with moderate mental retardation, or even for all children with any specific category of disability. Teaching a child to feed himself in the right way means giving him more skill at using the right utensils, and keeping his new self-feeding behavior going after he has learned how. According to Kozloff (1974) as cited in Langone (1992) there are three methods to give a child more skills in feeding self in the right way.

1. Telling him how 'hold the spoon in your hand That is it. Now dip the spoon down to the food.... Good. Now push the spoon in'.
2. Showing him how or modeling 'watchOkay; push the spoon in like this.... That is right. See how I lift up the spoon.... Now you lift up the spoon'.
3. Moving or prompting him through the right motions at the same time you are telling or showing him how.

On the other hand, keeping the child's feeding behavior going means rewarding him when he eats in the right way, and not rewarding him when he does not (by telling him "No") and showing him what to do instead by timing out or removing his meal for a short time, or by stopping his hand before he finishes a wrong movement.

Campbell (1982) as cited in Kirk et al., (1993) the methods for teaching eating and drinking skills are basically the same procedures as those used to teach any other skill. These are: -

1. **Reinforcement** – Procedures which reward target behaviors, food and drink, which are integral parts of these programs, are powerful reinforcers for most children,

programs should be structured so that children obtain food more efficiently when they use the desired eating behaviors.

2. **Chaining** – Chaining the assembling of separately taught discrete responses into a more complex behavior, may also have a part in training eating and drinking skills. Although these skills typically require whole task presentation, task analysis can be extremely useful in pinpointing which step or steps need work, and focusing training on a single or only a few steps often provides the best results.

3. **Prompting** - Prompting, which is providing extra cues or assistance to the child, is also useful in training eating skills. Although physical prompts are often impossible or too disruptive for eating or drinking skills (e.g. reaching into a child's mouth to help position his or her tongue properly). Many of the physical assistance, procedures described above might be considered physical prompts. Verbal and gesture prompts are also commonly useful.

4. **Modeling** – Modeling\ demonstrating the appropriate behavior, is also extremely useful in training eating and drinking skills. Most commonly, the trainer models the behavior for the child to initiate, but peers also can provide powerful models.

1.1.3.4 Methods in training grooming skills

This self-care skill includes washing and drying hands face and body, combing hair, brushing teeth, cleaning nose. In order to teach these skills the methods mentioned below are used.

1. Task analysis

All mentally retarded children learn easily through small steps. Instead of teaching a behavioral objective as a whole, the teacher can split it in to several small steps. Each step can be then taught one at a time, until the child reaches the specified behavioral objective (Perry, 1984). In deciding how to break down skills the teacher should observe a competent person do the task and note down the broken down skills or he/she can perform the task by himself/herself and note down the steps.

2. Shaping

Skills which might have never been performed before should be taught to children with moderate mental retardation (Shanker, 1984). If teachers wait for target behaviors to occur on their own, they may have to wait for a long time. Therefore, it is important to start teaching the child in small steps and keep him/her-moving closer to the target behavior by rewarding even minor changes towards the final behavioral objective. Using this method prevents frustration in the child. For example, if a child picks up a comb and is unable to use the comb-to-comb hair, then shaping may be used to change "picking up the comb" through a sequence of steps in to taking the comb to hair and then start combing.

3. Imitation

Most people acquire many skills by imitating others this is the same for moderately mentally retarded children too. They imitate behaviors of persons who are important to them (Berine-Smith et al., 1994). Using this method we can teach children wash their face and hands by doing it ourselves by being in front of them so that they can look at us and imitate the behavior.

1.1.4 Instructional Methods for communication skills development

The acquisition of language is one of our most remarkable achievements. Within the space of a new short years children make the transition by becoming fully communicative individuals, able to talk about everyday activities, future plans, hypothetical ideas, feeling, worries, and their sense of wonder at the world around them. For normally developing children these accomplishments take place during the preschool years, most children have acquired the essential components of language by about the age of three or four. Yet, the majority of children with mental retardation, at this age they may only be beginning to move down this pathway having learned just a few words to name the important people in their lives and significant objects or some expressions for regulating social interactions (Jacob et al., 1998)

Moderately mentally retarded children should be assisted in developing the ability to communicate verbally. They need to make their wants known and be able to understand and answer other people's questions and requests. A trainable person can learn great deal about his environment and the people whom he meets if he comprehends spoken language. Other people will be more understanding of him if he can convey his thoughts to them through speech. Spoken language will make it possible for the retarded child to adjust more adequately to his home and his community (Cruickshank and Johnson, 1992).

Since the children differ in their interests and behavior, the language problems of individuals in the group have to be met in a different ways (Langone, 1992). There will be individual variation in language ability, some of which are the results of differences in chronological age and intelligence.

A trainable child needs to acquire skills in verbalizing (expressive language), as well as skills in understanding a spoken language (receptive language). Accordingly we will try to see the training methods used by teachers starting from receptive language and then to expressive language.

1.1.4.1 Methods in training Receptive Communication Skills

Before a hearing person can learn to understand language, he must be receptive to auditory stimulation and be able to discriminate one sound from another. He must learn to attend to human vocal sounds and to distinguish the sounds of one word from those of another. When he has learned to do these, he can then attach meanings to certain combinations of sounds and thus begin to understand language (i.e. appropriate language and good speech need to be heard by the trainable child in order for him to understand it and learn to speak intelligibly).

Although most normally developing children begin to understand words before their first birthday and produce a few words by the time they are 16 months old this is not the case for moderately mentally retarded (White, 1990). In order to help these children develop their ability in receptive language skills different methods are used of these we'll try to see two of the major ones.

1. Expanding the meaning of words

In order to help the children understand more words the school activities should provide opportunities for associating language with experience – visual, auditory, tactile, kinesthetic. Pictures, movies, and real objects can be presented so that the children see what is being talked about. The teacher's gestures and facial expressions also help to give meaning to what is said for example, the meaning of some words, such as "whistle" and "loud" are made

more clear by the use of auditory aids. If a child is shouting, the teacher may say to him in loud tones, "That is too loud," and add in a quiet voice, "Talk softly." Touching objects makes some words easier for the children to understand. Acting out words like "jump" or "throw" make it possible for the children to get the meaning kinesthetically (Ysseldyke and Algozine, 1995).

According to Kirk et al., (1993) a trainable child needs systematic help in developing meaningful language. When reinforced each time they respond correctly, retarded children learn to select objects named, especially if the names were introduced in planned sequence until each one was learned. If a teacher keeps in mind the meaning of a word she is trying to add to his vocabulary, she can introduce it during many activity periods each day. For example when most of the children seem ready to learn the concept "around" they can make balls of clay, rolling them around and around. They can join hands and dance around in a circle. In such ways their concepts of the meaning of "around" is strengthened and broadened.

2. Understanding Verbal directions

Verbal directions are valuable in helping the children increase their comprehension of spoken language. Directions should be given slowly in very simple language and then should be discussed. The children will realize that they have to listen carefully and understand what is said if the teacher refrains from using gestures to help them get the meaning. However, for some children pantomime and illustrations may need to be used. There could be several possible reasons for a child's failure to respond to a direction. The teacher may not have given him time enough to absorb what he has heard; he may not know how to carryout the direction even though he understands it; or he may not want to respond.

A good way to help a child attend to directions is to teach him to look at the face of the teacher. At first the teacher may often need to remind him, "Watch me." Sometimes a restatement of the direction in different words makes it clear to the child. In the case of a child who does not feel like responding a repetition of the direction in a lively or dramatic manner sometimes provides the necessary impetus for him to carry out the direction (Heward and Orlansky, 1988).

The children can be questioned to determine if they have understood a story or discussion. Questioning also gives an opportunity for review of the meaning of words, but should be geared to each child's ability to comprehend (Ysseldyke and Algozine, 1995).

1.1.4.2 Methods in training expressive communication skills

Many moderately retarded children who understand language do not express themselves in words (Kirk and Gallagher, 1986). Some of them have very little speech and others do not use the language ability they have. Often a child who is able to speak in sentences will say only one word instead of using more words to make a clear statement. The problem for the teacher is to provide an environment and experiences that will help the children gain additional satisfaction from expanded verbal expression.

In working with trainable each child's speech needs to be considered as an individual problem, but in all cases it should be remembered that the factor of mental deficiency is primary. The problem of trainable children in learning symbols and abstractions, their poor auditory perception, their lack of interest in learning for the sake of learning, their inability to read all makes it necessary for the teacher to discard her usual speech correction techniques. It takes ingenuity to discover how these children learn speech and devise ways to guide them in

developing the speech they need and can acquire. Since, the purpose of speech work for the trainable is to help them communicate with others, memorizing for recitation provides little help.

In training moderately retarded children develop their expressive language ability need to the following methods are used.

1. Increasing the use of sentences

When a pupil tries using sentences, a teacher will certainly accept his\her efforts, but he\she will not use the child's abbreviated style. Rather, the teacher can sometimes expand the child's telegraphic speech, but always in the order given. However, the teacher would have to be careful in expanding remarks that include pronouns not yet used correctly by a pupil, so as not to confuse him\her. A question "eat lunch?" could be expanded to "Yes, time to eat lunch," rather than "Yes, you eat lunch now," which he\she might repeat, thus calling himself\herself "you." Expanding a pupil's statements may indicate to him\her that he\she has communicated successfully; so, with this reinforcement at the moment when he\she is talking about and attending to the teacher, the pupil may be ready to understand and might thus be encouraged in an effort a little beyond his\her previous language level (Johnson and Werner, 1980).

2. Songs and chants

A child can enjoyably practice common words and phrases meaningful to him\her by singing them in songs, and these words may help him\her later in expressing his\her own thoughts (Jacob et al., 1998). The teacher can see whether the children generally understand the words of a song by having them repeat phrases or short sentences after him\her. If they cannot do

so, the teacher may be able to clarify the meaning but it may be too advanced for them. The rhythm of good songs that a child understands might help him\her develop rhythmical speech. The teacher should be careful, therefore, to preserve the good rhythm of a song when he\she tries to simplify its words; and must select words that flow readily and are accented similarly, with the same number of syllables as original song.

3. Group Conversation

One of the most important methods of expressive language development program is the daily conversation or “show-and-tell” period (Rondal et al., 1999). These children with moderate mental retardation and who have problem with expressing themselves should be encouraged to talk about anything they wish. Moderately retarded children who are inclined to imitate should be called upon first so that they will not merely copy what others say. If the teacher knows what interests the child he\she may elicit responses from a child who thinks of nothing to say. He\she can repeat the remarks of each child, showing the attached importance to his\her contribution and feels that the group too, will be interested. After attending such “meetings” for a long time, most of the pupils learn to distinguish between what is relevant to a discussion and what is not.

The conversation should be centered on ideas close to the pupil’s experience. A subject should be kept simple and new words and concepts should be reviewed often so the children will remember them (White, 1990). The single words of the less articulate children can be elaborated into phrases or sentences by the more articulated one, with assistance from the teacher. For example, if a child says “fish” he\she may be asked to say more about fish. He\she might say, “Swim.” The teacher or another child would put this into a simple sentence such as “The fish swim,” or “The fish swim in the water.”

1.1.5 Instructional Methods for functional academic skills development

Much controversy surrounds the wisdom of stressing academics in the curriculum of the typical moderately retarded students. Many authorities argue that academics should be subsumed under the primary goal of helping the student to function in his community. The terminology – functional academics according to Berine- Smith et al, (1994) include skills as functional reading (names, directions, labels), writing (words, names) and arithmetic (number, time, and simple money exchange) which are taught in the context of daily living activities.

1.1.5.1 Methods in Training Functional Reading

The average child is expected to begin reading at a chronological age of approximately 6 years. Retarded children at that chronological age may have a mental age of 3 to 4 years and may not be ready to read until their mental age approaches to chronological age at which the average child begins to read. The retarded may be 8 to 10 years old before he is ready for traditional reading instruction.

Although a strictly academic program for mentally handicapped children is generally discouraged, reading is one of the skills most emphasized in Special classes. Although much research has been conducted in order to determine what particular functional reading methods and materials are most effective in working with the retarded child, most studies indicate that no reading approach is superior to others. Perhaps more attention should be placed on the learning styles of each retarded child and methods and materials best studied suited to his abilities rather than on any one particular method for each group of retarded children.

The teaching of reading to moderately retarded children focuses on functional reading. Although they are unlikely to ever read for comprehension or recreation, they should be able to identify key words, be able to read at least to the 'survival words' level (stop, poison, restroom, and so on) (Rondal et al., 1999).

1. Multi Sensory Reading Methods

Various reading approaches have been categorized as multisensory, although, in actuality, very few reading programs are unisensory in nature. Most approaches combine auditory as well as visual presentation in their teaching methods (Perry, 1984). Even though a program may be considered to be visual, auditory presentation is usually included (through pronouncing the words or giving verbal directions, etc). Therefore the term 'multisensory' is applied to an approach that makes an apparent concerted attempt to include more than one mode of presentation – visual, auditory, and/or kinesthetic (muscle sense). A "bombardment approach in which the child is encouraged to hear it, feel it, and see it", has composed much of the training in special education.

2. Remedial Reading Drills

Remedial Reading drill that is considered to be a complete program was developed initially for use with retarded children (Langone, 1992). These single letter phonics programs utilize a multisensory or kinesthetic approach in learning the letter that represents the sound. The sounds are blended into words as they are learned, and the changes in one-syllable words that are blended are made generally in order to minimize confusion.

3. Progressive Choice Method

This method combines elements of programmed construction and the linguistic approach to reading. An attempt has been made to combine several principles of learning theory into an approach to teaching reading. Discrimination learning, built-in success, active response of the participant, immediate feedback, and multisensory presentation are some of the learning principles considered in this program.

The program is unique in that it attempts to simplify the complexity of reading materials presented in the earlier stages of reading. For example, the basic inconsistencies of the English language are eliminated in the beginning by very systematically introducing letters and sounds that correspond easily and can be discriminated easily as well as word patterns that are highly controlled. Each letter has only one sound, one shape (upper case), and one form (the singular). As each additional letter is introduced, it is combined with previously learned ones (White, 1990).

4. Systematic experience method

This is one method to be used to develop initial reading skill when the teacher is certain the child has the essential maturity and readiness skills. The children should be stimulated to tell a story concerning an experience they have had (Langone, 1992). Through careful, selective questioning the teacher can develop the story so that he\she may write it on the board for a reading chart, which should meet the following criteria (1) it must come from the child's experience, (2) sentences should be short (one line in length), (3) the story should be short, (4) it should show proper sequence of events, and (5) there should be a repetition of basic vocabulary words.

1.1.5.2 Methods in training Functional Writing

Teaching writing to mentally handicapped children does not differ significantly from the teaching of writing to non-mentally handicapped children. The major differences are the discrepancies found in motor and mental abilities of young non-mentally and mentally handicapped children.

Writing is not an end in itself but of value for communication. Whenever anything is written for the child on paper, chart or blackboard it should be well written with proper letter formation to provide the child with a good example at all times. Letter transfer is accomplished from writing lessons involving the formation of vertical lines and ovals. Rather, teach the correct method of producing the individual letters and correct formation of letters and words including proper size and spacing in relation to their use. In this way, every piece of written material becomes a writing lesson, too.

It can be assumed for the majority of mentally handicapped children that they have the motor ability to write when they are mentally ready to write. The major difficulties in writing encountered by them are the knowledge of what to write and how to write it.

In teaching writing the following factors must be considered (Taylor, 1995).

- ❖ Emphasis on accuracy & legibility is the important factor in teaching writing to mentally handicapped children. Speed of writing should not be practiced. For the child will gain speed in writing as he becomes confident of his ability & has practice in writing.
- ❖ Practice in writing can be given as an aid to reading and spelling.

- ❖ Mentally handicapped children should be shown the correct procedures in writing, including posture, the relation of the paper to the body. Since more left handed children are found in special classes than in the regular grades, the teacher should assist the child in adjusting adequately to the desk & paper.
- ❖ Writing should have meaning for the child. Even though exercises in writing are given, the child should understand the reasons for the exercise.

As the child learns the sound and name of the letter, visually, he also traces the entire letter; then, he traces a dotted form of the letter; and finally, he writes it on his own. In addition, comprehension is considered because the words presented supposedly are already part of the child's listening and speaking vocabulary; the reading vocabulary thus is introduced and reinforced in meaningful context. A motivational factor, the use of incentives via peer recognition, is utilized in this program. As the child progresses through the program, he earns the privilege to assist other students and has titles such as "student instructor" awarded to him.

1.1.5.3 Methods in training Functional Arithmetic

Moderately retarded children are not taught the formal arithmetic presented in the primary grades. They can learn quantitative concepts (more and less, big and little) and the elementary vocabulary of quantitative thinking. They can be taught to count up to 10 and to identify quantities in small groupings. As they grow older, these children can learn to write numbers from 1 to 10, time concepts and an elemental understanding of the calendar. Some can recognize and remember telephone numbers, their own ages, and simple money concepts. In general, the arithmetic they are taught, like the reading, is related to everyday living (Rondal et al., 1999).

A common philosophy among some educators is that the intelligence of the mentally handicapped differs from that of the non mentally handicapped only in amount, and that his arithmetical ability, therefore, differs only in his slow rate of learning the same materials offered to average children (Taylor et al., 1995). Consequently arithmetic materials are presented to mentally handicapped children in the same order, in the same manner, and with the same emphasis as they are presented to average children. The only adjustment made for the mentally handicapped is that the materials designed for eight year old average children will be used for mentally handicapped children with mental age of eight.

The mentally handicapped have need for arithmetical concepts from the time before they can handle simple number problems through adulthood. Consequently, every classroom activity in which a number situation arises should be made use of to add to his meaningful experiences and to further his grasp of the concepts. Utilization should be made of whatever number situations arise in the life of the child to give him additional practice in understanding and manipulating numbers in the basic skills. In order to help the child develop arithmetic skills the following methods are used (White, 1990).

1. **Sensorization**: defined as a method in which concreteness or realism of presentation is used. In using this method the child is told the relationship of measurements in conjunction with concrete demonstration. The child actually makes the measurements, thus seeing the relationships.
2. **Socialization**: defined as an active, experiencing type of activity in which the child learns the concepts in relation to a need.

3. **Verbalization**: a method conventionally used in the schools in which verbal description is used as a substitute experience. In this method the child is told the relationship between various measurements.

1.1.6 Instructional Methods for Motor Skills Development

In all the tasks of daily living as well as in future work situations, the trainable child who cannot use his\her body efficiently will be at a great disadvantage (Werner, 1987). Whereas the non-mentally retarded who are not well coordinated can compensate by intellectual or artistic achievements, trainable individuals cannot do so. Being able to handle his body well, to make it do what he wants it to do, will give a trainable child confidence. Also, the more normally he can move, the less will curious people stare, and the more will others accept him.

Motor behavior plays a big part in the mental development of the growing child. A child needs to move around freely to find out about himself\herself and his\her environment. The growth curves for motor development of trainable retardates approximates those of normal children in whom gross motor skills development until about age sixteen, but trainable individuals show delay, the degree of which depends on the kind of skill performed (Drew et al., 1988).

Motor ability develops first in big, general movements and only later in the finer movements of small parts (from big arm muscles to fine finger dexterity), so it is not surprising that trainable children have less difficulty pulling a wagon than sewing. But at the same time that the child is gradually moving from the use of generalized, over-all big-muscle skills to more specific skills with finer muscles, he\she also is gradually developing motorically in another

way: he/she starts with an individual, isolated motor skill and combines it with other specific skills until he has an organized pattern of movement, and these patterns are combined eventually into a complex, structured motor system.

As it has been pointed out frequently in the literature that motor activity aids a child to become more aware of his environment and gain a perceptual understanding of it. In general, as non-mentally retarded children develop, they learn many physical skills incidentally; but trainable youngsters need to be shown how and trained to use their bodies. Accordingly, we will try to see the methods used in the training process.

1.1.6.1 Methods in training fine motor skills

The tasks in the fine motor sequence are designed to develop grasping skills, manipulation skills and eye-hand co-ordination. The fine motor skills should generally be treated as a continuous sequence in which the performance of a given task is dependent up on the child's ability to perform the previous tasks in the sequence (Haring et al., 1994).

The method by which the fine motor tasks are performed are often more critical than the result of the task performance. It is suggested that the teacher be particularly concerned with the methods a child uses to perform the skills. It is also important to note that for many of the skills repetition is important. That is, it is not sufficient for a child to perform skills one time and then move on to the next tasks. Rather, the child should continue to perform repetitions of tasks as long as it remains a challenge to co-ordination or strength abilities (White, 1990).

The overall long-range objective of the fine motor sequence is the development of sufficient manual co-ordination, strength for the performance of such skills as dressing, writing, using utensils and implements and other manipulative skills essential for success in school work or independent living.

1.1.6.2 Methods in training gross motor skills

An underlying assumption of the gross motor curriculum is that retarded children learn motor skills in the same developmental sequence, as do normal children, though perhaps at a delayed rate. The child, then, should learn these skills in the sequence in which they are presented. In the gross motor curriculum more than in any other section, the acquisition of a particular skill is dependent up on the child's readiness, both in terms of prior learning and in terms of physical development (Cruickshanl and Jhonson, 1992).

Gross motor activities use larger parts of the body (arms, legs, back, and chest). As the child gains skills at moving his\her body, he\she will be able to spend more time in constructive ways. To teach gross motor skills:

1. Tell him\her to do and show him\her how, for example,..... "Stretch your arms like this", or ".....bounce the ball like me."
2. Prompt the child through the motions at first.
3. Reward with plenty of spirit while you are prompting him\her when he\she finishes.
4. Reward old target behaviors (eye contact, cooperation) once in a while, but not too often. Save most rewards for the new target behavior.
5. Fade out prompts as the child gets more skill. Use lots of praise when he\she does the behavior by himself\herself.

6. Use positive practice to teach the right sequence of movements. For example, if the child makes a mistake near the end of the sequence, back up and have him do the sequence again until he/she gets it right. But this only a few times and then switch to another activity.
7. Every few days, practice old movements and add new ones.
8. As the child gets more skilled, cooperates and enjoys the activities, work on them in new places (for example, in the yard) and with other people. Have a new person reward the child. When he is used to being rewarded by the new person, that person can also work with the child on the activity.

1.2 Statement of the problem

Historically, educators and other professionals have underestimated what those who are mentally retarded can do. Today, we know that persons with mental retardation including those with moderate mental retardation have an intrinsic value of humanity. We also know that they can contribute to society and perform tasks, which previously were never expected of them (Heward and Orlansky, 1988). This would not have been the case if educational opportunities accompanied with proper methods of teaching were not provided.

According to Tirussew (2000) the ultimate goal in education of moderately retarded children is functional independence. In order to achieve this, children need a variety of daily living and job-related skills. Therefore, these children need training in self-care skills (independent eating, dressing, toileting, grooming); personal-social skills; motor skills (fine and gross); communication skills (expressive and receptive) and functional academic skills (reading, writing and arithmetic) designed to help them develop skills necessary to everyday life.

Therefore, this research was designed with an intention of finding answers for the following questions.

1. What are the adaptive behavior skills trained to children labeled as “moderately retarded”?
2. What are the methods used to train adaptive behavior skills for children labeled “moderately retarded”?
3. What are the challenges teachers face in training the adaptive behavior skills?
4. Is there a significant difference in the level of performance of the subjects before and after the training on adaptive behavior skill variables under the study?

1.3 Objectives of the study

General objective

The main objective of this study is to find out and discuss methods of adaptive behavior skills training to children labeled as “moderately retarded”.

Specific objectives

This study specifically intends to: -

- Examine adaptive behavior skills trained to children labeled “moderately mentally retarded”.
- Discuss the methods employed in training adaptive behavior skills for children labeled “moderately mentally retarded”.
- Identify the challenges teachers face in training these children adaptive behavior skills.
- Bring out recommended solutions by teachers to alleviate the challenges they face.

- Ascertain whether there is a significant difference in the level of performance of the subjects before and after the training on the variables under the study.

1.4 Significance of the study

This study emanates from the assumption that moderately retarded children can and will learn if provided with appropriate instructional program and a teaching process that is oriented to their individual needs. However, this is not the case in our context. As a result, they have been segregated from education or training and placed in situations where educational services are inappropriate. Therefore, it is hoped that this study would highlight the following vital aspects.

- ✓ Offer information on how adaptive behavior skills mentioned are trained to moderately retarded individuals.
- ✓ Generate knowledge base, which could be used for further improvements in adaptive behavior skill training of the moderately retarded individuals.
- ✓ Serve as a base for interested researchers to carryout more extensive research in the area.
- ✓ Add to the existing knowledge and may serve as additional source in the area.

1.5 Delimitations of the Study

This study primarily focuses on investigating the methods used to train adaptive behavior skills for children labeled “moderately retarded”. Currently, there are eight primary schools with special units providing educational services for mentally retarded children including

those with moderate mental retardation in Addis Ababa. However, this study is delimited to two special units which are randomly selected by the researcher. These are:

1. Sebste Negassi Primary School's special unit and
2. Belay Zeleke no. 2 Primary School's special unit.

1.6 Limitations of the study

In Ethiopia, there is no standardized intelligence test that could be used to classify children with mental retardation in to various types. Therefore, the researcher was compelled to take subjects who were labeled as moderately mentally retarded by their teachers according to their limitations in adaptive behavior skill areas under the study.

Absence of sufficient and relevant materials related to this study in our context has forced the researcher to rely on foreign sources. However; the researcher has attempted to make the study as complete as possible.

1.7 Definition of Terms

Moderately mentally retarded-Are retarded individuals who are able to master self-care skills, communication skills, functional academic skills, motor skills and personal-social skills (Perry, 1984). For the present study the mentally retarded children labeled as moderately retarded by their teachers based on their limitations in adaptive behavior skills were accepted as moderately retarded.

Adaptive behavior: - Effectiveness or degree with which an individual meets the standards of personal independence and social responsibility expected for age and cultural group (Berine-Smith et al., 1994).

Adaptive behavior skills: - Are skills used to evaluate mentally retarded individuals. According to Langone (1992) for moderately retarded persons the major skills to be evaluated are self-care (independent eating, dressing, toileting, grooming, washing); communication (receptive and expressive); social (cooperation, establishing friendship); functional academics (number awareness, money use, writing and reading); and motor skills (fine and gross). The same domains were accepted for the present investigation too.

Children: - According to the UN Convention on rights of the child the term 'child' is defined as every human being below the age of 18 years, unless under the law applicable to the child, majority are attained earlier (Article 1 of the Convention, 1989). In the case of the present study it refers to retarded persons between the ages of 10 and 18.

CHAPTER TWO

METHODOLOGY

The main purpose of this research study is to find out the adaptive behavior skills trained to children labeled “moderately retarded” and the methods used in the process. Hence, the aim of this chapter is to present the research design, the study area (site), data sources together with sampling procedures. Lastly, description of tools of data collection, procedures of data collection and methods of analyzing the collected data will be presented.

2.1 Method of study

A combination of qualitative and quantitative methods are employed on the assumption that it will help meet the goals of the research.

2.2 Study area (Site)

The present study was conducted at two governmental schools which provide educational opportunities for mentally retarded children including children with moderate mental retardation. Currently in Addis Ababa there are eight schools. However, due to time and financial constraints the researcher randomly selected the following two school’s with special units.

1. Sebste Negassi Primary School’s special unit and
2. Belay Zeleke no. 2 Primary School’s special unit.

2.3 Population and Sampling

To enhance the reliability of data the researcher-collected data from two important sources, viz children labeled “moderately retarded” and their teachers.

2.3.1 Children labeled “Moderately retarded”

In Ethiopia, children are labeled as retarded by their teachers based on their limitations in adaptive behavior skills (Nema, 2000). This is not different for moderately retarded. These children learn different adaptive skills in order to help themselves function independently. Accordingly Tirussew (2000) stated that these children’s curriculum focuses less on academic areas. In Addis Ababa (the capital city of Ethiopia) in the selected schools by the researcher these children are learning skills, which help them, live independently. So, in this study the first subjects are children labeled “moderately retarded” based on their limitations in their adaptive behavior skills functioning by their teachers. For selecting these children from each school a number of criteria were developed so as to draw the appropriate sample. Based on these criteria children who have no additional disability than mental retardation, those who have stayed in the schools for not less than two years, and those between the ages of 10 and 18 years etc... were considered for this study. At present there are 22 moderately retarded children at Sebste Negassi special unit and 20 moderately retarded children at Belay Zeleke no. 2 special unit. The researcher selected 16 and 15 children from each school respectively using purposive sampling method. Therefore, a total of thirty one (31) children labeled as moderately retarded were selected.

2.3.2 Teachers of children labeled ‘moderately retarded’

Kirk and Gallagher (1986) as cited in Chernet (1999) stated that despite the availability of a large number of adaptive behavior scales, the most common method of assessing adaptive behavior is the informal judgment of teachers or others who’ve direct experience with the child. Accordingly, this study after selecting the children from each school has purposely selected four teachers who have been having constant contact with the children as major informants.

2.4 Methods of Data Collection

In this study three distinctive methods of data collection were used. These are interview, observation checklist, and document analysis, which we try to see below in detail.

2.4.1 Interview

Asking questions and getting answers is a much harder task than it may seem at first. The spoken and written word has always residue of ambiguity, no matter how careful we word the questions and report the answers.

Yet, the interview is probably the most widely used method of data collection in educational research. An interview, which is a specialized form of communication between people for a specific purpose associated with some agreed subject matter, goes beyond conversation.

Interviews carried out for research enquiry purposes are commonly used approaches, possibly in part because the interview appears to be a quite straight forward and non-problematic way of finding things out (Robson, 1993). This helps the interviewee the opportunity to describe

his/her ideas and give more emphasis on what that person thinks is important. In addition, Anderson (1990) stated that interview helps the interviewer to clarify questions and probe the answers of the respondent, providing more complete information than would be available in written form.

To support the idea of using this method Frankel and Wallen (1993) stated that interview method helps any researcher to have much greater depth in collecting research data than any other method of collecting data. Moreover, people are easily engaged in an interview than in completing a questionnaire. Thus there are fewer problems with people failing to respond.

Accordingly, based on the above points, the researcher selected interview to be the first appropriate method of collecting data in this study.

2.4.2 Observation Checklist

A checklist which has prepared list of behaviors or items that can be checked using number or word to see the presence or absence of a behavior is a most widely used method of data collection (Best and Khan, 1998). It helps to facilitate the recording of observations and insures the consideration of the important aspects of the object or act observed. Accordingly observation Checklist was selected as the second appropriate method of collecting data in this study.

2.4.3 Document Analysis

Documents are important sources of data in many areas of investigation. They serve a useful purpose in adding knowledge to fields of inquiry and in explaining certain social events.

Therefore, document analysis was selected by the researcher as a substantial and supplementary method in this study.

2.5 Tools of Data Collection

In order to collect objective information data was collected from the target groups of the study using the three tools. These are interview guideline, observation checklist guideline and document analysis guideline.

2.5.1 Interview guideline

The interview guide used in this research was developed by the researcher on the methods of training adaptive behavior skills for mentally retarded children in general and those moderately mentally retarded in particular. The interview guideline items were first prepared in Amharic language by the researcher based on the review of literature as well as the researchers experience with the problem. Then the draft items were given to a senior Amharic language expert to make corrections on clearness of the items. After necessary corrections were made the items were given to an English language expert for translation. Finally, the guideline was given to my academic advisor for further improvement and was tested on a pilot study. In general, the questions in the interview guide were designed to include the adaptive behavior skills trained to children with moderate mental retardation (self-care, communication, motor, functional academics and personal-social skills), methods employed in the training process, problems teachers face and the recommended solutions given by them to alleviate these problems.

2.5.2 Observation Checklist guideline

This tool was adopted from the schools and was used to collect information whether the training in adaptive behavior skills has brought any change on the part of the children's level of functioning or not. In order to check this, it considered the children's level of performance in the adaptive behavior skills (base line skills) when joining the schools as reported by parents and was recorded in the children's case files and their current level of functioning as seen and marked by teachers. The guideline in the special units was prepared in Amharic. Therefore, the researcher gave it to an English language translator and then it was given to my academic advisor for further improvement and like the interview it was pilot-tested.

Accordingly, the checklist considered the five major adaptive behavior skill areas (self-help, communication, functional academics, motor skills and personal/social skills) for moderately mentally retarded with subsections which were recorded during the entrance of the children to the schools and their current level of functioning which was marked based upon their performance by marking does not do (1), does with more support (2), does with minimum support (3) and does independently (4) according to their level of performance by their teachers.

2.5.3 Document analysis guideline

In this study this tool was used to get important data from the available documents in the schools such as the syllabus used to teach these adaptive behavior skills, case files and levels of functioning of the children in the adaptive behavior skill areas when joining the schools were examined.

2.6 Procedures of Data Collection

2.6.1 Pilot Study

Piloting of instruments has paramount importance for taking out difficult, vague and ambiguous items and concepts as well as techniques of test administration. Accordingly Robson (1993) stated that pilot study helps a researcher to make some modifications before going a step forward. Keeping this in mind the researcher after taking the improved items tried them out on a pilot study. The pilot study was done at Kokebe Tsibah primary School's special unit on eight moderately retarded children and two of their teachers. Finally, the researcher made some modifications before going to the actual data collection process. Accordingly, the following modifications were made:-

- Items which were asked as a whole were separated and were asked separately.
- Repeated items were discarded and
- Additional item was formed to enable the respondents give their opinion about children with mental retardation.

2.6.2 Main Study

To collect the actual data the researcher made visits to the two schools. The 1st visit was made to Sebste Negassi Primary Schools special unit and the researcher introduced self and purpose of the visit to the headmaster of the school. After getting permission to carry on the data collection process, the headmaster introduced the researcher to the teachers of the moderately retarded children and told the purpose of the visit. After the introduction the researcher asked the teachers when and where they want to meet to conduct the interview they wanted to do it in their classrooms during lunch time for it is the free time they got. The same

was done at Belay Zeleke no.2 Primary Schools special unit. At last, the researcher went to the schools on the appointment days and conducted the interview and wrote their answers. Each interview on average took about fifty minutes.

In order to collect data using the checklist guideline the teachers were given orientation how they are going to fill it according to what was kept about the children's performance on their case files and what was marked when they joined the schools in the place of baseline skills (O_1) and their current level of performance as observed by teachers after few weeks (current level of functioning or O_2) by marking does not do (1) does with more support (2) does with minimum support (3) and does independently (4). And the data collected from the documents available were translated from Amharic to English word by word.

2.7 Methods of Data Analysis

The steps in analyzing a data in research involve categorizing the collected data based upon the objectives of the study, organizing the categorized data and discussing the organized data in light of research questions of the study.

Accordingly, the data collected from the interview guideline and the document analysis was presented qualitatively whereas, the data from the observation checklist was presented quantitatively using t-test.

CHAPTER THREE

RESULTS

The purpose of this study was to find out and discuss the methods used in training adaptive behavior skills to children labeled as “moderately retarded”.

Thus, to assess this the data gathered are analyzed in this chapter. Accordingly, the first part focuses on the background characteristics of the children and their teachers. The second part focuses on the methods used to train these children with moderate mental retardation adaptive behavior skills. The third part focuses on level of functioning of the children on adaptive behavior skill areas. The last part focuses on the contents of the syllabus followed by the teachers to teach the adaptive behavior skills.

3.1 Background characteristics of the participants

3.1.1 Background characteristics of the children

Table 1- Age and sex of the children

Schools	Participants	Age	Sex
Sebeste Negassi primary School's special unit	1	17	M
	2	17	M
	3	15	M
	4	18	F
	5	16	F
	6	12	M
	7	14	M
	8	17	F
	9	18	F
	10	15	M
	11	18	M
	12	17	M
	13	13	M
	14	13	M
	15	11	M
	16	18	M
Belay Zeleke No.2 primary School's special unit	17	15	M
	18	15	M
	19	13	F
	20	15	F
	21	14	F
	22	15	M
	23	18	F
	24	14	F
	25	13	F
	26	16	M
	27	18	F
	28	13	M
	29	16	F
	30	15	F
	31	17	F

From Sebeste Negassi Primary School's special unit 12 boys and 4 girls with an age range of 11-18 and from Belay Zeleke No.2 Primary School's special unit five boys and ten girls with an age range of 13-18 were drawn as sample.

3.1.2 Background characteristics of the teachers

Table 2 -Background characteristics of the teachers

School	Participants	Sex	Educational Level	Special Education training	Work Experience in the Schools(years)
Sebeste Negassi	1	F	High School	Yes	5
	2	F	TTI	Yes	3
Belay Zeleke	3	F	High School	Yes	5
	4	F	High School	Yes	4

All the teachers who had participated in the study are females. Their educational level ranges from high school to TTI. All of them are specially trained in this area. The work experience of the teachers ranges from 3 to 5 years.

3.2 Results of data collected from interview

3.2.1 Results of interview at Sebste Negassi Primary School's special unit

Two teachers of Sebste Negassi Primary School's special unit were interviewed. Their responses were almost similar. Hence, their responses were clubbed together and reported in the most meaningful manner.

As mentioned before the two teachers of this unit are trained in special education and have worked each for five and three years in the school. One of the teachers has completed high school education and the other has diploma from Teachers Training Institute (TTI).

In this school's special unit children labeled as "moderately retarded" are trained on adaptive behavior skills under study (self-care skills, communication skills, motor skills,

personal/social skills and functional academic skills). In order to teach the above-mentioned skills there is a common set of teaching methodology (strategy) used by these teachers. The following section unfolds these methods.

In order to train children with moderate mental retardation eat independently, training starts from making them sit appropriately, letting them take enough amount of food in hand, transfer food to mouth, chew closing mouth and swallow without spilling. The first method used is to make the children sit in a way that they can face each other and learn from a well-trained child. But if the child is not able to imitate the model he/she is given physical prompts to perform the whole task of eating food. And if the child does not need physical assistance verbal assistance is given like, “put your hand in the food”, “now take a small amount of food then take your hand to your mouth”, and “take the food in and swallow”. During each step if the child performs the tasks appropriately he/she is given reinforcement (thumbs up, clapping hands) and if not he/she is given training in the steps in which he/she is weaker repeatedly and finally the assistance given (physical, verbal) will be faded out when the teacher is sure that the child can manage eating independently.

In teaching how to drink water from a glass without spilling, first the child is taught how to pour water from a jar to a glass (cup) by filling the jar with small amount of water and is presented in front of him/her with a glass and the same will be put in front of the teacher and the child is told to do as the teacher is doing following the steps. First the teacher will hold the handle of the jar and the child is told to do the same. After this is done the teacher will slide the jar to a position the glass is placed and slowly pours water in the glass without spilling and the child is told to do as his/her teacher. If the child is unable to do this, he/she is given physical assistance by taking and placing his/her hand on the handle and letting the

child pour the water in to a glass (cup). In teaching how to pour water from a jar to a glass the teacher after making sure the children can pour without spilling increases the amount of water. In training the children how to drink from a glass without spilling the teacher uses a cup so that they can use the handle to pick it up easily and lets him/her take the cup from the table, bring it near to mouth, take enough amount of water without making mouth full and swallow without spilling on themselves.

In dressing/undressing skills training the children are made to take off their clothing (shirts, trousers, dresses, shoes, socks) and put them on accordingly. But these children face more problems in tying their shoes, buttoning and putting on their clothes in the right order. In this case the teachers help them by giving physical prompts. In teaching how to button and zip clothes the teachers have prepared pieces of clothes with buttons and zips and teach the children button and zip these pieces of clothes and then the children are told to do the same to their own clothing. Other than this the children are given dressed dolls and are told to take off their clothing and put them on in the right order. In teaching how to tie their shoes laces they are told to take off their shoes and the teacher will put the tip of the shoes facing them and tells them to grab tip of the lace, pull the lace up, cross the lace up, tighten the laces, make a bow and tighten the bow.

In order to teach these children function independently on their toileting needs, first they are told to tell their teachers if they want to go to toilet, those who does this are encouraged and those who does not are closely observed by their teachers when they usually need to use the toilet and are taken to toilet accordingly and are reinforced. The children are trained how to use toilet by taking them to toilet and guiding them physically how to take off their trousers/dress, how to sit appropriately on the seat, how to use tissue paper, how to put on

their clothes, flush the toilet and wash hands. The other method is sending the children to the toilet using a model (able bodied person who is favored by the child). These models are told to show the children the process of going to the toilet and void.

In training these children to keep their personal hygiene the teacher lets them out to the taps taking soap and towel and washes her hands and face and tells them to do the same, if unable the teacher does this to the child or verbally instructs him/her to do the task. In training how to comb hair the children have their own combs and perform the same as their teachers does. The teachers also teach them how to clip their nails using nail clippers by doing it on her and those who are able to do it by themselves are left to perform the task but the teachers help the unabled ones.

The children are trained to express what they want and feel to say in ways that can be understood by others. Accordingly the teachers train them express themselves using questioning and answering method by asking questions like “what did you do when you wake up?” “What did you see on the way to school?” “What did you do during your weekend?” and engage them participate in activities which provide opportunity to converse with their friends. The other method the teacher uses is repetition. Here the children repeat what the teacher says after her.

In teaching these children develop their receptive communication skills the teachers tell them to take messages to their parents and bring the responses (ex-tell your mother to come to school). If they are unable to do so they are made to participate in receptive communication activities.

In order to develop their physical strength these children are trained on motor activities (gross and fine motor). To help these children develop gross motor skill, training on how to climb stairs altering feet, how to descend from stairs and how to walk straight are taught. The children are told to do the specific skills by showing them and letting them imitate others. And those who need physical assistance are given physical assistance and those who need verbal prompts are provided with it and all will be faded out when it is made sure that these children can perform the tasks alone. Coming to fine motor skills training, these children are given simple tasks to develop eye-hand co-ordination such as putting thread into beads, putting thread into needle, cutting paper with scissor by showing them in the beginning and then letting them repeat what is done.

To develop appropriate social skills, training in the areas of how to interact in games initiated by self and others, how to establish friendship, how to greet and respect others are given by guiding the children play cooperatively, by making them practice how to greet others within themselves, using modeling and role playing. The children are also taught different social skills using examples like how they should behave in social gatherings, what feelings they should show during happy and sad moments, what they should do during those occasions. The children are also introduced to different personnel's of the school and are told to greet and respect those individuals. And lastly using role play in which they all can participate what was taught before will be played by the children themselves is arranged.

The children are made to learn functional academic skills which might help them function independently. For example, in teaching arithmetic skills they are taught to count their fingers and countable items and moreover are asked how many ears, eyes, and nose they have. In order to teach them different colors they are shown different colors using color cards and

are asked “who is wearing what?” “What the color of different objects are?”, “ what is the color of the cloth they are wearing today?”. In teaching size concepts the children are given different sized objects and told to bring together the similar ones. Regarding to shape concept development after it is taught, they are told to fill the empty spaces with the different shapes from a wooden board on calling the shapes by name. When coming to reading the children are first given pictures of animals, fruits, vegetables with two letters and are asked to name them. In teaching these children read a letter the teacher shows them the letter, pronounces it, touches it following the line (on a sand letter board) and lets the child do the same. In teaching these children read survival words such as stop, in, out, women, men which are written on a card they are made to identify them. In teaching how to write, the children are given dotted letter to join or are made to trace the letter, and slowly the teachers, pronounces it and the child does the same and through time the child writes it by his/her own. In teaching money concept the children are presented with different notes of money and coins and are told each by name. Moreover, they are taught the values of birr and coins through role-plays. Coming to time concept, the children are asked to tell what time it is and are expected to answer not in number but with related activities such as time to play, to eat or go home, etc.

The teachers of these children face different problems in training these children. Some of their problems are forgetfulness of the children, not being cooperative in activities which they don't like, lack of teaching aids to satisfy the specific needs of these children, restlessness, late admission to schools and as such is difficult to train them, and absenteeism during monthly religious occasions. To alleviate the mentioned problems the recommended solutions provided by these teachers are teaching these children with patience because these children take longer time to understand a single concept, give awareness (going house to house campaign) to parents to bring their children with mental retardation so early for better

change and for those whose children are at school to bring their children on regular basis, and lastly making lesson more interesting using different examples and materials which might make them active participants and be cooperative.

Lastly for the question do you think children with moderate mental retardation can live independently and function in a society if provided proper training both teachers responded that children with moderate retardation can function independently and they have seen those children after getting training can function and live independently adopting to societal demands.

3.2.2 Results of interview at Belay Zeleke No. 2 primary School's special unit

Interviews were conducted with two teachers who give training to children with moderate mental retardation and the answers given by them too are somehow similar hence their responses were meaningfully combined and reported .

In this school's special unit both teachers have finished their high school education and they have worked for five and four years in the school.

Like Sebste Negassi primary School's special unit the children labeled as moderately retarded are trained the same adaptive behavior skills (self-care, communication, social, motor and functional academic skills) and the teachers have a common set of teaching methodology (strategy).

Training children with moderate mental retardation independent eating skill starts from letting them wash their hands and making them sit with a more abled child and imitate the behavior. If in need those who are not able to eat by themselves, they are given physical prompts or verbal prompts according to their difficulties. Moreover, they are taught to take enough amount of food to mouth, chew and swallow properly. If the child performs the tasks appropriately he/she is reinforced if not he/she is not discouraged but is given some assistance or cues to perform the task appropriately and is made to practice the skills he/she is weak on daily basis.

In training children independent drinking skills they are trained to coordinate their eyes with hands and pour the drink to a glass and taught how to pick up and drink without spilling using both hands in the beginning and then with one hand after the skill is mastered.

In training how to dress/undress self the children in the beginning are trained to identify different articles of clothing. After this they are told or assisted to take off their clothes and are made to face themselves in a mirror and are told (verbally) or physically assisted to put on their clothes appropriately. In teaching them how to button or zip clothes there are pieces of clothes with buttons and larger holes which make buttoning easy and the children after taught to button these clothes are moved to buttoning their own clothes.

Teaching children with moderate mental retardation toileting skills is a very difficult task because the teachers are sometimes forced to take these children to the toilet themselves. In training this skill the children are shown how to use the toilet through practical demonstration by their teachers. After they are shown the process of using a toilet by their teachers (taking

off clothing, sit on the toilet seat, clean self with tissue paper, put back clothes and wash hands) they are made to go to the toilet with a trained child and help each other.

The training in grooming skills includes washing face and hands, brushing teeth, combing hair, etc. The children are trained to keep their personal hygiene and are encouraged to practice it everyday through demonstration, and using models. The children who need help are provided with cues, which help them develop this skill to a great extent.

In order to let the children develop their communication skills they are given training in expressive and receptive areas. For example these children are asked to talk about their recent experience, talk about their family members, are told short stories and are asked to retell it back. In the area of receptive communication skill the children are told to take message to a specific person (either in the school compound or at home) and bring back answers and are encouraged to participate in plays that give more opportunity to understand given information.

In order to help these children develop physical strength they are given training in motor (fine and gross) areas. The children are taught how to climb stair altering feet, how to descend stair, how to walk straight, run, etc. with the teacher showing them and helping them in areas where they face difficulties. In fine motor skill training the children are trained to do as the teacher does in activities where eye-hand coordination is needed, are also taught how to move objects from one place to another, how to pour liquid from one container to another without spilling etc.

In order for the children be participants in social activities the teachers train them how to play cooperatively with others, how to respect others, how to establish friendship and participate in

social occasions like weddings, funerals, christening and what to do during the different occasions, are also made to participate in coffee ceremony and are taught how to take turn, how to respect elderly people and how to behave.

The children are taught functional academic skills (reading, writing and arithmetic). In teaching reading the children are first shown different letters and are told to touch the letters with their fingertips and pronounce the letters by repeating after the teachers and taught how to read name. In teaching writing, the teachers prepare dotted letters and make the children join those letters to make a full letter and gradually they are told to write a letter when told without any other clue by themselves. In teaching arithmetic skills the children are taught to count their fingers and other body parts (ears, nose, mouth, hands, legs). They are taught to differentiate different shaped, sized and colored objects using different shaped, sized and colored objects are told what they are and they are finally asked questions like “what is the shape of the table?”, “What is the color of the clothe you are wearing?”. Moreover, these children are taught concepts of how to differentiate different notes of money and cents, and time concept – how many days do we have in a week, what are the days of the week, the months, what time is it (time to play, to eat...) what the day is today.

In this school’s unit too teachers face different problems in the teaching – learning process. The children are fed-up easily with lessons which they don’t like and which is difficult for them, they are sometimes uncooperative and restless, the age at which they join School is too late and is difficult to teach them. If there is no money for transportation they may come after a week or even fifteen days and will be difficult to start from the beginning, parents also do not let their children do things by themselves at home or practice what is taught in the schools

at home and at last lack of teaching aids to satisfy the children's need. In order to solve these problems the teachers recommended the following solutions.

- a. Presenting lessons using interesting materials.
- b. Giving parents orientation about the trainings given in the schools and to make their children practice the skills at home.
- c. Teaching these children with patience although it will take a longer time to make them grasp a single concept.

Lastly for the question do you think these children can function like any other person independently if given proper training both the teachers replied that they are sure that these children do benefit from the training given to them and can live like any other person in the society they are living in although it will take longer time to train them and need the help of people to accept them and acknowledge what they can do.

3.3 Results of data Collected from the Checklist

Table 3- Data and result of t-test on fine motor skills

0 ₁			0 ₂			df	*t-value
N ₁	\bar{X}_1	S ₁	N ₂	\bar{X}_2	S ₂		
31	22.7	7.55	31	28.9	4.71	30	3.9

***Significant at 0.05 level (maximum possible score=32)**

The result on table 3 shows that there is a significant difference at 0.05 level between the base line score of the children and their current level of functioning on the eating and drinking skill.

Table 4 - Data and result of t-test on dressing\undressing skills

O ₁			O ₂				
N ₁	\bar{X}_1	S ₁	N ₂	\bar{X}_2	S ₂	df	*t-value
31	30	5.58	31	39	6.34	30	8.72

***Significant at 0.05 level (maximum possible score=44)**

The result on table 4 shows that there is a significant difference at 0.05 level between the base line score of the children and their current level of functioning in the dressing\undressing skill.

Table 5- Data and result of t-test on toileting skills

O ₁			O ₂				
N ₁	\bar{X}_1	S ₁	N ₂	\bar{X}_2	S ₂	df	*t-value
31	16.9	6.51	31	22.2	2.4	30	4.23

***Significant at 0.05 level (maximum possible score=24)**

The result on table 5 shows that there is a significant difference at 0.05 level between the base line score of the children and their current level of functioning in the toileting skill.

Table 6- Data and result of t-test on grooming skills

O ₁			O ₂				
N ₁	\bar{X}_1	S ₁	N ₂	\bar{X}_2	S ₂	df	*t-value
31	15.32	6.2	31	20.3	4	30	3.72

***Significant at 0.05 level (maximum possible score=24)**

The result on table 6 shows that there is a significant difference at 0.05 level between the base line score of the children and their current level of functioning in the grooming skill.

Table 7- Data and result of t-test on receptive communication skills

O ₁			O ₂				
N ₁	\bar{X}_1	S ₁	N ₂	\bar{X}_2	S ₂	df	*t-value
31	18.8	7.9	31	27	5.74	30	4.67

***Significant at 0.05 level (maximum possible score=32)**

The result on table 7 shows that there is a significant difference at 0.05 level between the base line score of the children and their current level of functioning in the receptive communication skill.

Table 8- Data and result of t-test on fine motor skills

O ₁			O ₂				
N ₁	\bar{X}_1	S ₁	N ₂	\bar{X}_2	S ₂	df	*t-value
31	18.8	8.91	31	26.9	8.8	30	3.5

***Significant at 0.05 level (maximum possible score=36)**

The result on table 8 shows that there is a significant difference at 0.05 level between the base line score of the children and their current level of functioning in the expressive communication skill.

Table 9- Data and result of t-test on personal social skills

O ₁			O ₂				
N ₁	\bar{X}_1	S ₁	N ₂	\bar{X}_2	S ₂	df	*t-value
31	15.2	7.14	31	21.3	7.15	30	3.35

***Significant at 0.05 level (maximum possible score=28)**

The result on table 9 shows that there is a significant difference at 0.05 level between the base line score of the children and their current level of functioning in the personal social skill.

Table 10- Data and result of t-test on fine motor skills

O ₁			O ₂				
N ₁	\bar{X}_1	S ₁	N ₂	\bar{X}_2	S ₂	df	*t-value
31	15.19	6.53	31	23.2	5.67	30	5.77

***Significant at 0.05 level (maximum possible score=28)**

The result on table 10 shows that there is a significant difference at 0.05 level between the base line score of the children and their current level of functioning in the fine motor skill.

Table 11- Data and result of t-test on gross motor skills

O ₁			O ₂				
N ₁	\bar{X}_1	S ₁	N ₂	\bar{X}_2	S ₂	df	*t-value
31	14.6	4.79	31	22	2.07	30	6.55

***Significant at 0.05 level (maximum possible score=24)**

The result on table 11 shows that there is a significant difference at 0.05 level between the base line score of the children and their current level of functioning in the gross motor skill.

Table 12- Data and result of t-test on functional reading skills

O ₁			O ₂				
N ₁	\bar{X}_1	S ₁	N ₂	\bar{X}_2	S ₂	df	*t-value
31	6.29	2.36	31	9.32	3.70	30	3.84

***Significant at 0.05 level (maximum possible score=16)**

The result on table 12 shows that there is a significant difference at 0.05 level between the base line score of the children and their current level of functioning in the functional reading skill.

Table 13- Data and result of t-test on functional writing skills

O ₁			O ₂				
N ₁	\bar{X}_1	S ₁	N ₂	\bar{X}_2	S ₂	df	*t-value
31	5.67	2.33	31	8.77	3.71	30	3.9

***Significant at 0.05 level (maximum possible score=16)**

The result on table 13 shows that there is a significant difference at 0.05 level between the base line score of the children and their current level of functioning in the functional writing skill.

Table 14- Data and result of t-test on arithmetic skills

O ₁			O ₂				
N ₁	\bar{X}_1	S ₁	N ₂	\bar{X}_2	S ₂	df	*t-value
31	13.3	5.18	31	22.2	6	30	8.4

***Significant at 0.05 level (maximum possible score=28)**

The result on table 14 shows that there is a significant difference at 0.05 level between the base line score of the children and their current level of functioning in the arithmetic skill.

Table 15- Data and result of t-test on time concept

O ₁			O ₂				
N ₁	\bar{X}_1	S ₁	N ₂	\bar{X}_2	S ₂	df	*t-value
31	4.7	2.25	31	8.03	3.23	30	4.7

***Significant at 0.05 level (maximum possible score=12)**

The result on table 15 shows that there is a significant difference at 0.05 level between the base line score of the children and their current level of functioning in the time concept skill.

Table 16- Data and result of t-test on money concept

O ₁			O ₂				
N ₁	\bar{X}_1	S ₁	N ₂	\bar{X}_2	S ₂	df	*t-value
31	4.87	2.24	31	7.87	3.23	30	4.24

***Significant at 0.05 level (maximum possible score=12)**

The result on table 16 shows that there is a significant difference at 0.05 level between the base line score of the children and their current level of functioning in the money concept skill.

3.4 Results of data Collected from document analysis

3.4.1 Results of document Analysis at Sebste Negassi Primary

School's special unit

From Sebste Negassi Primary School's special unit the Syllabus followed to teach adaptive behavior skills composed of the five variables under the study specifically for children with moderate mental retardation was observed. Accordingly, the contents are presented as follows: -

Self Care Skills - These skills are trained in order to let children keep their personal hygiene independently. The training in this skill encompasses eating and drinking skills (how to sit appropriately to eat, how to transfer food from hand to mouth, etc.), toileting skills (expressing their toilet needs, how to take off and take on their clothes, etc.), dressing/undressing skills (how to identify different clothing, how to tie or untie shoes, etc.) and grooming skills (how to wash and dry hands and face, how to comb hair, brush teeth, etc...)

Communication Skills – These children are given training in this area in order to understand what is being said to them and to express themselves and be understood by others. In order to express themselves they are taught how to produce real sound, how to say a letter and then a word, and talk about what they saw on their way to school and in order to make them respond to what is said to them. They are also trained to respond when called by name, respond to command and perform a given task.

Motor-Skills – In order to develop the children's physical fitness they are trained in activities that are considered gross motor skills (how to walk up straight, how to climb and descend from stairs, how to move limbs freely, etc.) and fine motor skills (how to develop eye-hand coordination, etc).

Functional Academic Skills – The children are trained in this area (functional reading, functional writing and arithmetic) in order to enable them advance on independent living. They are trained to read letters, words (functional reading), write a letter, a word (functional writing) and counting numbers, differentiation of different colors, sizes and shapes (Functional arithmetic).

Social Skills - In order to make the children adjust themselves appropriately to the society they are living in, they are trained how to develop their social skills by letting them greet people appropriately, take turns,

participate in activities and making visits and are trained to practice how to participate in societal occasions like weddings and funerals.

3.4.2 Results of document analysis at Belay Zeleke No. 2 Primary

School's special unit

The contents of the syllabus in this special unit are the same as Sebste Negassi Primary School's special unit for the children under the study. The contents are presented as follows.

Self-Care Skills – The children are trained how to feed themselves, how to dress and undress themselves, how to use toilet and how to keep their personal hygiene. For example – how to use eating utensils appropriately, how to eat without spilling, how to drink water by pouring from a jar to a cup (eating and drinking skills), putting clothes in order, zipping/unzipping, buttoning and unbuttoning (dressing/undressing skills), sitting on toilet seat appropriately to use (toileting skills) and clean nose, washing face and hands, brushing teeth (grooming skills).

Communication skills – The children are given training on how to make conversation and how to receive information. They are trained how to converse by asking questions about their recent experience (example- what did they do during their weekend), and to train them receive information, a story is told in simple words and the children are asked to retell the told story. Moreover, they are told to take messages to their parents or school personnel and bring back responses.

Motor Skills - In order to make the children perform different exercises they are given training in this area. For example they are trained in skills such as running, standing straight, moving head from side to side (gross motor skills) and are trained how to coordinate eyes with hands in order to pick things up and transfer from one place to another (fine motor skills).

Functional Academic Skills – The training in this area lets the children read functional words such as toilet signs, traffic signs (functional reading), count different objects, differentiating different notes of money and cents, identifying different sizes, shapes and know days, months (functional arithmetic) and write a letter, a word and name (functional writing).

Social Skills - The children are trained how to interact with others appropriately, how to greet and make friend, how to interact with others in play activities, how to respect others, how to show feeling appropriately.

CHAPTER FOUR

DISCUSSION

This chapter deals with discussion of results found. Accordingly, the first section discusses the methods used by teachers of both special units to train children labeled “moderately mentally retarded” adaptive behavior skills. Whereas, the second and the third sections discuss problems faced by these teachers with recommended solutions and level of functioning of the children respectively.

4.1 Training methods in the adaptive behavior skills

The present study focused on finding out the methods used to teach the adaptive behavior skills for children with moderate mental retardation. This is because adaptive behavior skills make persons with mental retardation including those with moderate mental retardation function independently and their education calls for the use of specific methods (Ysseldyke & Algozzine 1995). All the variables under the study (self-care, communication, personal/social, motor and functional academic skills) are mainly aimed towards making a person with moderate mental retardation function independently (White, 1990). For instance instruction in self-care skills provide independence in personal care, instruction in communication skills assist children with moderate mental retardation develop their ability to make their own needs known to others and comprehend and respond to others, instruction in social skills help the child adjust to society, instruction in motor skills helps the child be more aware of the environment and gain perceptual understanding of it and lastly instruction in functional academic skills helps the child function independently by giving more emphasis to daily life activities.

The discussion of the results starts from the methods used to train children with moderate mental retardation in the skills mentioned above, goes on to the discussion of results of the documents and then to functioning of the children on adaptive behavior skill areas before and after the training.

According to Tirussew (2000) the ultimate goal for educating moderately retarded children is functional independence. In order for these children function independently they need training in areas of self-care, communication, personal/social, motor and functional academic areas (Gearheart and Gearheart, 1996). The effectiveness of training on these areas is dependent upon the quality of the curriculum and methods employed. The later is the main focus of the present study because a curriculum with high quality but implemented poorly is useless.

The adaptive behavior skills taught to children with moderate mental retardation at Sebste Negassi primary School's special unit are self-care, communication, motor, personal-social, and functional academic skills, the same are true to Belay Zeleke No. 2 primary School's special unit. This shows that the two schools special units are training children with moderate mental retardation in skills recommended for school aged children in this category.

Langone (1992) stated that provision of training on self-care skills (eating, dressing, toileting and grooming) that help the individual take care of owns personal needs for children with moderate mental retardation is important. Accordingly at Sebste Negassi primary school's special unit the methods used to teach eating and drinking skills are showing the child how to sit appropriately to eat, how to take enough amount of food to mouth, chew and swallow (eating skill), how to drink pouring from a jar using one hand, how to take the cup and drink without wetting self using a model which the child prefers and wants to imitate or using

physical assistance like helping the child sit appropriately by making her/him sit straight, helping him/her hold the amount of food to take in mouth by putting hand on his/her back of hand and letting him/her chew and swallow by showing them with action. Moreover, to help these children achieve more from the training they are given verbal assistance by telling them how to sit appropriately, how to take enough amount of food to mouth, chew and swallow it. When coming to Belay Zeleke No. 2 primary School's special unit the same methods used at Sebste Negassi primary school's special unit are used. These are for children who need to be told what to do by giving them verbal instruction and for those who need assistance physically, they are given physical assistance and the others are made to sit in front of a child (model) and imitate the task.

The methods in training moderately retarded in dressing/undressing skills at Sebste Negassi School's special unit the teachers use practical training like how to put on their trouser, dress, shoes, socks by making them take off their clothes and put it on again, or by giving physical assistance because this skill is a very difficult skill and requires more expertise (for example buttoning clothes and tying shoes) and lastly by breaking the whole process of putting on and taking off clothing in steps and making them do each step by step to perform the whole task. Whereas, at Belay Zeleke no. 2 primary School's special unit teachers make the children face themselves to the mirror and do as the person who is standing next to them (model) or like Sebste Negassi primary School's special unit the children are told verbally or assisted physically to dress or undress themselves, to tie or untie their shoes, to button or unbutton their clothing's, etc.

When coming to toileting skills the children at Sebste Negassi primary school's special unit are told to tell their teachers when they want to go to toilet and are encouraged to do so in the

beginning by taking them regularly and then reinforcing them for doing it by them. The second method is taking them to the toilet and physically assisting them take off their clothing, sit on the toilet seat, use tissue paper and put on their clothes back or they are send to the toilet with a model. At Belay Zeleke no. 2 primary School's special unit too the teachers are forced to take these children to the toilet and train them the skill using practical demonstration and sometimes the children are sent to the toilet with a trained person in order to get assistance from that trained person.

The training in the grooming skills includes of combing hair, brushing teeth, clipping nail, washing hands and face at both schools. At Sebste Negassi Primary School's special unit the children are trained to perform the task of washing hands and face imitating from their teachers are given physical assistance in areas such as clipping nails. At Belay Zeleke No. 2 Primary School's special unit these children are trained to keep their personal hygiene through demonstration, through verbal and physical assistance and lastly the teachers present the skill (e.g. brushing teeth) by breaking the whole process into small tasks like pick up the brush, wet the brush, take the cap of the paste, put the paste on the brush, brush teeth, spit, rinse the brush, rinse teeth with water and spit.

Communication is the ability to give and receive information using spoken and written words, graphic symbols, sign language or symbolic behaviors such as facial expressions, body movements and gesture. This too should be taught for children with moderate mental retardation (Ysseldyke and Algozine, 1995). So in training this skill at Sebste Negassi Primary School's special unit, for example, in expressive communication these children are asked to talk about their recent experience, what they did during the holiday, what they saw on their way to school in order to make them increase their use of sentences, and are told to

sign songs that have meaning to them. Whereas, at Belay Zeleke no. 2 School's special unit the questioning and answering method plus retelling of short stories after told by teachers is used as a method. When coming to receptive communication area, at both schools the children are trained to receive and understand the meaning of things told by telling the instruction in a very simple and in a slow way. For example in order to check this the children are told to take messages to their parents and other personnel's and bring back responses.

Cruickshank and Johnson (1992) stated that although children with moderate retardation learn motor skills as the non-moderately retarded but with delayed rate they need to be taught in sequences that help them function independently. To train these children develop their physical strength in both fine and gross motor areas training is given using the following methods. At both Schools special units in training these children in gross motor activities the teachers guide the children, for example, climb stairs by holding their hand and climb with them and telling them do, or showing them to do the act and giving them verbal assistance and when coming to fine motor skills training, the children are given training to coordinate their eyes and hand and practice the skill by letting them put thread to beads and needle.

Although instruction in areas of social skills for children with moderate retardation is recommended it does not necessarily imply conformity or strict obedience to authority but to the ability of the individual to adjust independently to supervision and direction (Kirk et al., 1993). Accordingly the children are given training in skills which make them adjust independently to social demands and be accepted by others. The method used in training personal social skills at both schools special units are giving examples and discuss the different societal occasions and what to do during these occasions. For example they are

given examples like when you go to weddings what things should you do? Would you laugh or cry or would you be happy or sad? After they give answers the teachers tell them what they should do, what they should expect, etc. Another method the teachers use to make the children participate in games and play activities cooperatively they make a child who is not participating pair with a child who is active in participating at these activities. Moreover these children are trained how to respect others during coffee ceremony's prepared at the schools.

The instruction in functional academic area should focus on skills that are directly related to daily life such as functional reading; functional writing and arithmetic (White, 1990). As reported by teachers the areas in functional academic skills are divided into 5 areas (i.e.) reading, writing, arithmetic, time concept and economy concept. The training in these areas gives more emphasis to skills that are directly related to daily life. At Sebste Negassi primary School's special unit a method to reading starts with making the children feel the letter with the tip of their finger using a sand letter board and is pronounced to them and they are told to repeat the letter. When coming to writing the children are made to join the dots to form a letter or are made to trace a letter and through time they are let to do it on their own. In teaching the children arithmetic skills like counting, they are made to count their fingers or countable items. Coming to shapes concept, the children are shown different shapes and the teacher will say the name and they are made to repeat it. Moreover, they are given examples like a ball is round; the table is rectangle, etc. Color concept is taught to these children by letting them know the different colors and asking them the colors of different objects and their clothes. The last is training in areas of time and money concepts, here the children are shown different notes of birr and cents, told each value and are made to practice what they were taught through role plays. When coming to time concept these children are asked what time it

is (time to go home, time to eat lunch, etc.) and call days and sometimes months of the year. All the above methods are also used at Belay Zeleke No. 2 Primary School's special unit.

4.2 Major Problems of teachers and solutions

Ysseldyke and Algozzine (1995) reported that some inappropriate and unacceptable behaviors are seen in children with moderate mental retardation. Some of them are uncooperativeness, non-responsiveness and restlessness. In the two school's special units too these same unacceptable behaviors are reported by their teachers. Moreover the teachers face problems from lack of teaching aids to satisfy each child's needs and absenteeism during religious occasions. In order to alleviate these problems the teachers gave solutions such as giving orientation to parents to bring their children on a regular basis to the schools, trying to present lessons in a more interesting and in lively way in order to make the children actively participate and be cooperative. They also recommended to talk to parents of these children to make their children practice what is taught in the schools at home too. As Burack et al., (1998) stated that parents, because they held a strong belief that there will be no change or improvement in the life of their moderately retarded child they show little or no effort to make the children do the skills at home.

4.3 Level of functioning of the children

This section deals with the discussion of results obtained from the observation checklist. As mentioned before the observation checklist considered the baseline score and current level of functioning of the children. The baseline score was filled by the respective special education teaches in each unit. Although, the score was recorded and kept on each child's case file upon entering the special units one cannot completely rely on it. This is because the ability of the

teachers to observe and record the child's abilities. However, the researcher in this study was compelled to consider the recorded information. The level of significance (0.05) shows the same results will be obtained in ninety five percent of cases. Because the researcher believes that other than the training on adaptive behavior skill areas, age, duration of stay of these children in the special units can make a difference in the current level of functioning of the children.

Table 17 –Summary of t-test results of adaptive behavior skills

Variables	t
Eating and drinking	3.9*
Dressing/undressing	8.72*
Toileting	4.23*
Grooming	3.72*
Receptive Communication	4.67*
Expressive Communication	3.5*
Personal Social	3.35*
Fine motor	5.77*
Gross motor	6.55*
Functional reading	3.84*
Functional writing	3.9*
Functional arithmetic	8.4*
Time concept	4.7*
Money concept	4.24*

***Significant at 0.05 level**

As indicated on the above summary table, the t-value (3.9) in eating\drinking area with 95%confidence interval and 30 degrees of freedom reveals that there is a significant

difference in level of functioning of the children after the training in the area was given. The t-value (8.72) for dressing\undressing skills, the t-value (4.23) for toileting and t-value (3.72) for grooming skills also show that there is a significant difference in the level of functioning of the children after the training was given. This is supported by Tirussew (2000) who stated that if children with moderate mental retardation are provided with training in self-care skills they can function independently and live independently in the society they are living in.

Langone (1992) stated that moderately mentally retarded children should be helped to develop their ability to communicate verbally (expressive communication) and be able to understand and respond to other people's demands (receptive communication). And if helped to develop these skills they can make their wants known and comprehend the language spoken and express them. Accordingly, as seen in table 17 the t- value (4.67) and (3.5) for receptive and expressive skills respectively with 95% confidence interval and 30 degrees of freedom shows that there is a significant difference after the training in adaptive behavior areas was given. It means that the training in the areas has helped the children develop their communication skills to function in the society.

Social competence has frequently been a critical component of life adjustment especially if the importance of social competence is much stressed (White, 1990). In this study the t-value (3.35) with confidence interval and 30 degrees shows that there is a significant difference in personal\social skills of the children after the training was given.

White (1990) stated that motor skills training children with mental retardation (including those with moderate mental retardation) should be shown how or should be trained how to use their bodies in order to develop their motor behavior which plays a big part in their mental

development. The training in these areas (fine and gross) helps the child to be independent and function as any other human being. In this study too, a t- value (5.77) and (6.55) was found on fine and gross motor skills functioning of the children respectively. This shows that there is difference in the current level of functioning of the children after the training in motor skill areas was given.

According to Bernie-Smith et al.,(1994) although a strict academic instruction in academic areas for children with moderate mental retardation (moderate mental retardation) is not recommended, the instruction should focus on primarily helping the child function in his/her own community. In this study too as seen from table 17 the t-value (3.84), (3.9), (8.4) for reading, writing and arithmetic skills shows there is a significant difference at 95% confidence interval in current level of functioning of the children after the training in the area was given. Lastly, the t-value (4.7) and (4.24) for time and money concepts also shows that there is a significant difference in the current level of functioning of the children.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This study was conducted to investigate and discuss methods in training adaptive behavior skills to children labeled “moderately mentally retarded”. It also attempted to explore the level of functioning of the children before and after the training on adaptive behavior skill areas was given.

Sixteen and fifteen children labeled “moderately retarded” from Sebste Negassi and Belay Zeleke no. 2 primary school’s special units respectively including two teachers from each units were selected using purposive sampling method.

As mentioned before the ultimate goal of education for students with moderate mental retardation is functional independence. Accordingly, in both the special units these children are given training on adaptive behavior skills that makes them function independently. The adaptive behavior areas taught to these children were self-care skills (eating, dressing, toileting and grooming); personal\social; motor skills (fine and gross); functional academics (reading, writing and arithmetic) and communication skills (expressive and receptive). As seen in both the units the areas mentioned above were the same as the standard set by the American Association On Mental Retardation for children with moderate mental retardation.

The results of the study showed the methods used to train self-care skills, in both the units are not that much different. These methods are used to teach these children keep their personal care and be independent to do so. Accordingly, the methods used were giving prompts (verbal and physical), modeling, reinforcement, practical demonstration, chaining, etc.

As found out from the interview and presented on result part the teachers at Sebste Negassi primary school's special unit are using methods such as asking questions and (ex-"What did you see on your way to school?") and engaging the children participate in activities which provide chance to make conversation with others to teach expressive communication skills. And in teaching receptive communication skills the teachers use a method of telling the children take messages to their parents and bring back responses and they are also let to participate in activities which provide opportunity to develop their receptive communication skill ability. At Belay Zeleke no.2 Primary School's special unit to teach expressive communication skill the children are asked by their teachers to tell their recent experience like Sebste Negassi special teachers moreover, the children are asked to retell a story told. In receptive communication area the same methods as Sebste Negassi primary school special unit are used.

As found from the results of this study in making the children develop their motor ability in both fine and gross motor areas the methods mentioned by special teachers of Sebste Negassi were, telling the children do the specific task (climb stairs) by showing them how and letting them imitate others. And moreover, the teachers give prompts (verbal or physical) for gross motor skill development and for fine motor skill development the teachers help the children develop their eye-hand coordination by making them practice activities such as putting thread into beads or in to a needle etc. At Belay Zeleke no. 2 primary school's special unit the

teachers teach the children gross motor skills by showing and physically assisting them when in need and in fine motor skill areas the children are trained how to pour liquid from one container to another and how to move objects coordinating their eyes with their hand.

In order to develop appropriate social skills the training on this area at Sebste Negassi Primary School's special unit was given using methods like guiding the children interact in games initiated by self or others and giving them different examples such as how to behave in different occasions (wedding, funerals). And moreover, they are taught different social skills using role-playing. At Belay Zeleke no. 2 Primary School's special unit the children are trained to develop their social skills using play activities which provide more opportunity to the children participate in games initiated by them and by others and how to participate in social occasions using examples.

In training these children functional academic skills (reading, writing and arithmetic) the teachers at Sebste Negassi primary school's special unit use a sand letter board on which a letter is written on and they make the children feel it with their finger and are told to repeat what the teacher has pronounced (reading); for writing, the children are given a paper with dots for the children to join and make a letter or the children are made to trace a letter and through time they are let to write without a clue. For arithmetic skills the children are asked to count their fingers, identify different shapes, sizes and colors by asking different questions such as "What is the color of your cloth?" (Color concept); "Which size is the same as this one?" (Size concept); and arrange the different shapes on their proper spaces (shape concept). At Belay Zeleke no. 2 primary School's special unit too, the same methods used to teach functional academic skills as Sebste Negassi School's special unit were used.

Coming to level of functioning of the children as been found out after the training on adaptive behavior skill areas under the study was given the current level of functioning of the children has showed improvement.

Children with mental retardation including those with moderate mental retardation show behaviors that are not accepted and which make the teaching and learning process difficult. In these special units too, the children with moderate mental retardation have been noticed with some problems like uncooperativeness, restlessness and non-responsiveness. Moreover, the teachers lack teaching aids to meet the needs of each child, lack of parental support in encouraging their children practice the skills they are taught in schools at home and lack of knowledge when to send their children to school; and making their children skip school (absenteeism). To deal with these problems the teachers were trying their best by making lessons more interesting to get the children's attention, are also asking for concerned bodies for teaching aids moreover, they are trying to talk to parents about the benefits of making their children perform the skills that are taught in school at home and lastly how it is important to bring their children to schools in order to profit more from the training.

5.2 Conclusion

Based on the above mentioned conclusions the following points were highlighted:

- The children with moderate mental retardation are trained in adaptive behavior skills- self-care, communication, motor, functional academics and personal\social skills.
- The training methods to teach children with moderate mental retardation are modeling, task analysis, reinforcement, providing prompts (physical or verbal), giving examples with in the child's experience, repetition, etc.
- The behavioral problems of the children have created problem on the training process.
- The teachers of these children face problems like lack of support from parents, lack of teaching aids to address the needs of the children, restlessness, uncooperativeness etc.
- The training on adaptive behavior skills has virtually made a difference in current level of functioning of the children.
- Teachers of children with moderate mental retardation believe that these children can function independently if provided with proper training in adaptive behavior skill areas.

5.3 Recommendations

The following recommendations are given according to the results of the study.

- Since the effectiveness of training is based on giving it earlier, training in adaptive behavior skill areas shouldn't be delayed.
- The involvement of parents is critical in the education activities of children so much more effort should be made to increase their participation in the activities of their children and in general the abilities of their children.
- The training of these children with moderate mental retardation should be supported with teaching aids that meet the needs of the children.
- Discussion forum to increase the parent's belief about their children's abilities should be arranged.
- Promoting close working relationship with community members, schools, parents, concerned NGO's and GO's should be done.
- The training on adaptive behavior skill areas should not only be practiced in schools but also at home so that the skills can be mastered.
- Further research on this area should be done to help children with mental retardation in general in their education to increase their level of independent functioning.

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Appendix A

Interview questions for teachers of children labeled “moderately mentally retarded”

These interview questions are prepared to identify the training methods used to train adaptive behavior skills for children labeled “moderately mentally retarded”

School _____

Educational background _____

Training in special education Yes No

Work experience in the schools (in years) _____

INTERVIEW QUESTIONS (FOR TEACHERS)

1. Do you train moderately mentally retarded children adaptive behavior skills in your school?
2. If yes, what are the adaptive behavior skills trained to children with moderate mental retardation in your school?
3. Do you have a set of common teaching strategies which could be used to teach adaptive behavior skills to moderately mentally retarded children?
4. If yes, what are the strategies you use to teach the adaptive behavior skills?
5. What methods do you use to teach these children basic skill of independent eating?
6. What methods do you use to teach skill of drinking from a cup?
7. What methods do you use to teach dressing and undressing skills?
8. What methods do you use to train these children basic toileting skills?
9. What are the methods that you use to train these children keep their personal hygiene (wash their face, hands, comb their hair, and clean their nose etc...)?
10. What are the methods you use to develop receptive communication skills of children with moderate mental retardation?
11. What methods are used to teach a child with moderate mental retardation expressive language skills?
12. What methods are used to teach children gross motor skills (climbing stairs, alternate feet when climbing, etc.)?
13. What are methods used to teach fine motor skills (example, reaching and grasping objects, etc.)?

14. What are the methods used to teach appropriate social skills?
15. What methods are used to teach basic functional academic skills (example, writing a word, counting numbers, and reading)?
16. What is (are) the problem(s) you face in training these children?
17. What do you think is (are) the solution (s) to alleviate these problem(s)?
18. Do you think children with moderate mental retardation can function independently if given training or education?
 - If yes, how?
 - If no, why not?

Appendix B

Adaptive behavior observation checklist for children labeled “moderately mentally retarded”

This observation checklist is prepared to check independent level of functioning of children labeled “moderately mentally retarded “before and after given training on adaptive behavior skill areas.

Therefore, as you are the one who is providing service for these children you are kindly asked to fill in the spaces with appropriate information. Accordingly, on the place of base line skill or (O₁) put “✓ ” sign by copying from the case file of each child and on place of current level of functioning (O₂) put “✓ ” sign by observing each child’s current level of functioning in each sub-skill. The numbers represent:-

- 1. Does not do**
- 2. Does with more support**
- 3. Does with minimum support**
- 4. Does independently**

No _____

Sex _____

Age _____

School _____

<i>Skills</i>	Baseline(O₁)				Current level of functioning(O₂)			
	1	2	3	4	1	2	3	4
<i>A. Self-care skills</i>								
<i>Eating</i>								
Sits appropriately to eat								
Transfers food from hand to mouth								
Eats independently without spilling								
Chews closing mouth								
Uses proper eating utensils(ex-,spoon for soup)								
Pours water from a jar to cup								
Drinks from a cup without spilling								
Puts cup back after drinking								
<i>Dressing\Undressing</i>								
Puts on trouser\dress								
Takes off trouser\dress								
Puts on T-shirt\shirt								
Takes off T-shirt\shirt								
Puts on clothes in order								
Takes off socks								
Puts on socks								
Puts on shoes								
Takes off shoes								
Buttons\zips clothes								
Unbuttons\unzips clothes								
<i>Toileting</i>								
Indicates toilet needs								
Pulls down clothes								
Sits on toilet seat appropriately								
Pulls up clothes								
Flushes after using toilet								
Washes hands after using toilet								

<i>Skills</i>	Baseline(O₁)				Current level of functioning(O₂)			
<i>Grooming</i>								
Washes and wipes face								
Washes and wipes hands								
Combs hair								
Cleans nose								
Clips nail								
Brushes teeth								
<i>B. Communication Skills</i>								
<i>Receptive</i>								
Responds to name								
Responds to a proper command (example, give me....)								
Responds to the word 'no'								
Touches body parts on command								
Discriminates between two unlike objects on command (example, give me the.....)								
Moves from one place to another as instructed								
Carries out a two step command (go to....and bring.....)								
Arranges pictures after listening to a story.								
<i>Expressive</i>								
Produces real sound								
Imitates real sound								
Says a word								
Says two words								
Labels food and utensils								
labels daily activities								
Labels objects encountered frequently								
Responds to the question 'What is this?'								
Says complete sentences								
<i>C. Personal-Social skills</i>								
Responds to people by laughing or making sounds								
Engages in a play initiated by self								
Engages in a play initiated by others								
Attends to or responds to other children								

Takes turn								
Recognizes names of other children and interacts appropriately								
Interacts appropriately in group learning activity								
<i>D.Motor skills</i>								
<i>Fine Motor</i>								
Holds and uses pencil appropriately								
Puts thread on beads								
Reaches for and grasps objects								
Holds objects and transfers it from one place to another								
Place lids on jars by coordinating eyes with both hands and twists								
Pushes and Pulls objects								
Pours liquid from one container to another								
<i>Gross motor</i>								
Wakes straight								
Climbs stairs appropriately								
Descends from stairs								
Alters feet when climbing stairs								
Moves head (from left to right or vice versa)								
Moves limbs freely								
<i>E.Functional academic skills</i>								
<i>Reading</i>								
Recognizes letters								
Reads word								
Reads names								
Reads functional words(poison,male,female)								
<i>Writing</i>								
Writes name								
Writes words								
Copies from other materials								
Writes simple sentence								
<i>Arithmetic</i>								
Puts two like objects								
Separates unlike objects								

Groups objects of same color together								
Groups objects of same size together								
Identifies more from less								
Counts numbers								
Writes numbers								
Matches lids of jars to the basis of size								
<i>Time Concept</i>								
Names days of the week(in order)								
Names months of the year								
Knows things done(in the morning, afternoon and night)								
<i>Money concept</i>								
Differentiates different notes of money								
Differentiates different coins								
Asks for a change after buying								

Declaration

This 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.

Timait L.

This thesis has been submitted for examination with my approval as University advisor.

S. M. A. K. S.
10/6/2005