

## Effectiveness of Educational Programs for Child Rehabilitation of Different Abilities

Edo Sherifi

PhD Candidate, Department of Psychology & Education  
Faculty of Social Sciences, University of Tirana, Albania  
E-mail: edo.sherifi@yahoo.com

**Abstract** The purpose of this study is a reflection on the effectiveness of rehabilitation programs for the psychosocial development of children with limited skills. The methods used were vertical observations. Semi structured interviews, observations. Focus group. Questionnaire based on methods like: Teacch, Holding, Ethodinamic, Flooertime, DIR, PESCA. DT.T.ABA. For the period 2002-2011, the mental age of children with Down syndrome in practical educational programs rose to 6 years old on average of 6.5 months of children's mental ability. Mental age of children to 3 years old without practical educational programs rose on average 1.5 month. Mental age of autistic children under rehabilitation program to 6 years old rose to 2.5 months. Autistic children's mental age free of exercise program grew on average 3 years. The average mental age of children with mental retardation increased 7 years old to 5.5 months. Mental age of children without mental training programs increased to 3.5 months. Children under exercise, performed on average 55% of the program, at a complete Likert degree level. While children without exercise programs did not realize 68% of the test sections on cognitive skills. Autistic children performed 50% of exercise training program for cognitive skills, 55% of the training program for linguistic skills. Autistic children free from training did not realize 69% of the test for cognitive ability test and 55% of language test. Children with Down syndrome under exercise completed 45% of the program on cognitive skills and 55% of the training program for linguistic skills. Untrained children with mental rehabilitation programs in the 2011 test did not realize 73% of the test on cognitive skills and 66% of test on language training. Results show that by applying modern methods of rehabilitation programs, real institutional instruments intertwined with co-parent specialist, psychosocial development of children with autism, Down syndrome, mental weakness, is difficult but not impossible.

**Key words:** Autism. Rehabilitation Program. Down syndrome. Mental weakness. Effectiveness.

### Introduction

The study was conducted in the field of disability. Person is said to have disabilities when physical functions, intellectual abilities, or mental health, are different from those of his age, hindering or preventing in its participation in social life. The target group of children with disabilities is in growing number. In order for them to be rehabilitated and integrated legal, socio-economic and professional assistance is required in accordance with the Constitution and Albanian legislation. The study reflects on rehabilitating programs, modern methods and the latest techniques that were used for physical, emotional cognitive social integration into the community, psychosocial parameters - normal physical and social.

The purpose of this study is to reflect the effectiveness of rehabilitation programs for the psychosocial development of children with disabilities and to sensitize the public, the possibility of their development through professional programs, which are used in many developed western countries. This study raises the hypothesis; does rehabilitation affect educational programs in psychological, social and emotional progress of children with different abilities. Sample of the study were 12 children, four with autism, four with Down syndrome and four with mental condition. In each group, two children are in control group. In determining mental age, children were subdued to SONE-R test. In the first testing in 2002 each child's mental age was 2.5 years. The study was made in three phases, 2002-2005, 2005-2008 and 2008-2011. The first phase program of study includes three areas of development. This phase includes three areas of development. The second program five development areas and the third eight development areas program. During program implementation, individual plans were developed and applied five therapeutic sessions per week, according to the typology of service. Within 11 months, 220 sessions were conducted for each domain of development. The children in the control group were not trained with educational programs and stayed with their families in natural development conditions. In preserving the anonymity of children, the photos of the children in the study shown in the presentation were authorized by their parents, as well as the preservation of personal data. In order to increase the effectiveness of educational programs, sessions should be 45 minutes, implemented with no less than four relaxing sessions. A concept presentation requires no less than three very concrete didactic means. For the acquisition of an abstract concept it needs five sessions per week. At the end of each academic year, visual assessment of outcomes for each child is given, according to the spheres of development, analyzing the data records kept in the performance of programs, methods and

techniques of education. At the end of the third phase, children's performance are presented graphically and compared with the graphs of the first two stages. From the analysis results, the children under training program have visible progress of mental development compared with the children in the control group. Children's progress is possible and different for each child, based on limited parameters of the child's psychological progress.

### Study Methodology

Some instruments were used for the study. Vertical observation was used in order to get more in depth with the assimilation of educational program. The focus group was established with field specialists from central institutions, civil society and homologous center personnel. The half structured interview was held with parents of the children. Through these interviews they affirm the children progress during treatment at the Center. The video and photo materials show the therapeutic sessions conducted by the specialists. The SONE-R test served as an instrument to measure and determines the mental age of the championed children and of the control group. The application of the test is done for the championed children in all stages of the study from 2002 up to 2011. For the control group children the test was held in the first stage of the study and at the end of it in 2011. Children with different skills should be educated in schools. Even though their mental and sensory abilities are limited, it is necessary to draft special educational programs. Monitoring the treatment and periodical evaluation of the needs dictated the improvement of the rehabilitating programs by expanding other areas of the development. In the second phase of the study 2005-2008, the program was enriched with two other aspects of development. The program of the third phase contains eight other development areas. The English modules are orientated for the formation of educational programs according to children needs while the Swiss indicator of teaching is another reference system for educational programs.

**Self service skills program.** Through this program children are skilled to serve themselves in all possible dimensions.

**Cognitive skills program** is used to learn community concepts to write and read, to calculate and interpret poems and songs.

**Practice training program,** intended use of oven, washing machine, ironing, to open and close the TV set and be exercised in simple computer programs.

Physical training aims, improvement of the health through aerobic and improvement of fine and global motor skills. Vocational training is done in fun sessions, of pottery, pyrography drawing-and painting sessions. Adult girls may be exercised in sewing machines and cooking.

Emotional and psychological training, assess the level of child's mental development, emotional and clinical status, language, behavior and senses. The program accelerates cognitive development, comprehension, concentration of attention, emotional level, expressive skills, and degrees of judgment.

Through orthophonic program, mime gestures, pictures, in a non verbal and verbal language training communication can be gained.

**Social skills program,** aimed at rehabilitation and social skills through games, which are evaluated as one of the most relaxing, for socialization in the group.

### Literature Review

Individualized program of services is an integrative instrument, which assesses the needs of the person and its active participation / family planning enables the coordination of services. (\* Jean-Charles Juhel, Gutenberg 2010).

Psychology, of GESELL (1940), Piaget (1957) and Bloom (1964), shows the importance of the first years of life the child to develop cognitive, linguistic, sensory-motor and affective. Low stimulation during early childhood can lead, in the absence of irreparable, in both the affective and cognitive (\*\* Jean-Charles Juhel, Gutenberg 2010).

Rehabilitation programs were built on the basis of assessment of the child's needs. (Sheriff, integration Edo.Aftësim, 2004).

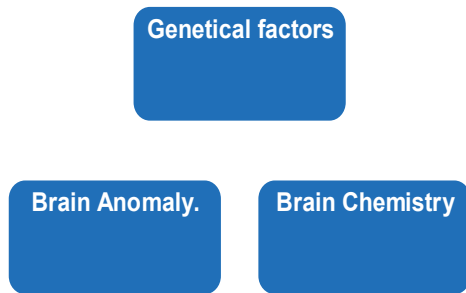
Women with the Down syndrome can be pregnant and give birth, while boys are often fertile. (Rogers, Coleman, 1992, Goldstein, 2004)

The results give rise to the development of logical thinking through the application of individual programs (. Renzo Vianello Silvia Elena Moalli Lanfranchi, Vianello, 2006)

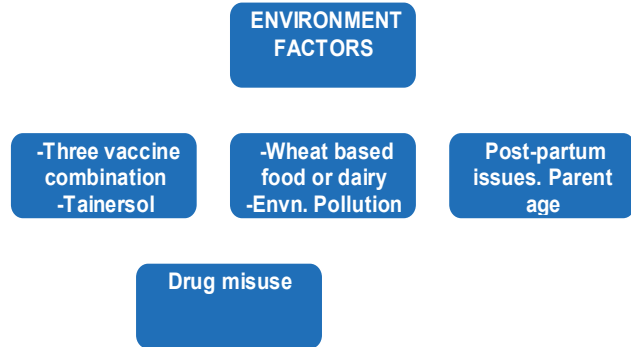
Parents can intervene to improve the skills of the language communication. (Ossella SABBADINI, 2001, Rondal, 2004)

Autism is a disorder of development that occurs in the first three years of life and is regarded as a neurological disorder that affects the function of the brain. Autism is four times more prevalent among boys than girls and has no racial, ethnic or social differentiation. The limits of family income, lifestyle and level of education, do not affect the chance of Autism to occur. (American Medical Association).

**GENETICAL FACTORS**



**ENVIRONMENTAL FACTORS.**



**Autistic spectrum disorders:** Social interaction. Communication. Repetitive stereotypical behavior.

Treatment is based on programs and methods that improve quality of life of the child, but do not heal autism. Methods: ABA, TEACCH, LOVAAS, GREENSPAN. (D.IR.Floortime). PECS. Ecodinamic. Holding was used effectively.

Autistic child is not only linguistically communication defective. The acquiring information instrument often causes problems in sensitivity areas. Hearing, sight, touch, smell and taste senses are developed differently from children with normal development and do not compensate for linguistic damage. (Dhamo Milika (2008). fq.200-2020.)

Capture and treatment of autism in early youth and restriction prevents the autistic elements as wrong ways of behavior. (Saqellari, Spiro.Onufri 2011; fq.101).

Observe the evolution of the child every day and record, not only advancements, but also feedback. Tupja, Edmond. (OMBRAGVG.2009). P.7-9, 138. *When the pain promises love. Living with a child autistic.*

*By a state of mental weakness, we mean pronounced reduction of intellectual functioning defined as a mental individual. Mental delay is perceived as an intellectual functioning below the average, coupled with restrictions on at least two areas of functioning adapter that may be, communication, care for yourself, housework skills, social skills, use of community resources, autonomy, health and safety, functional educational skills, leisure and mental results. Such a thing appears before age of 18 years old. (American Association on Mental delay (AAMR) .*

Mental weakness is a state, not an illness. Evaluation of mental categories.

The degree of severity of weakness.	QI	%
Easy	50-75	88
Average	50-35	7
The heavy	35-20	4
The deep	20-0	1

How widespread is mental weakness? In the world, there are 156 million people with mental retardation reported. Prevalence varies from 1-3% of the population. What are the causes? Among the known causes, three drag more attention:

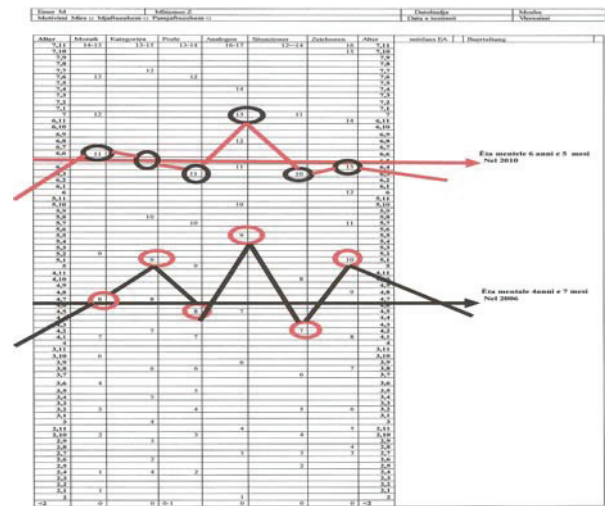
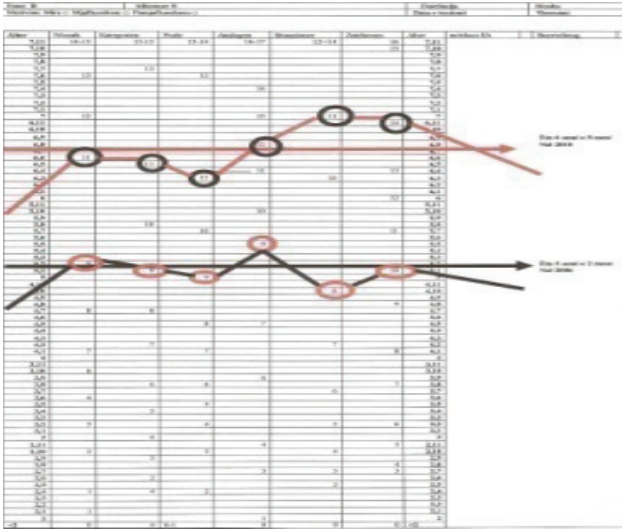
1. Hereditary and genetic factors. 2. Biological malformations. 3. Psychosocial and economical factors. Such elements play an important role along with the etiology of mental weakness and would be difficult to completely break away from each other.

**Study Results**

**Mental age of children with Down syndrome trained in rehabilitation programs.**

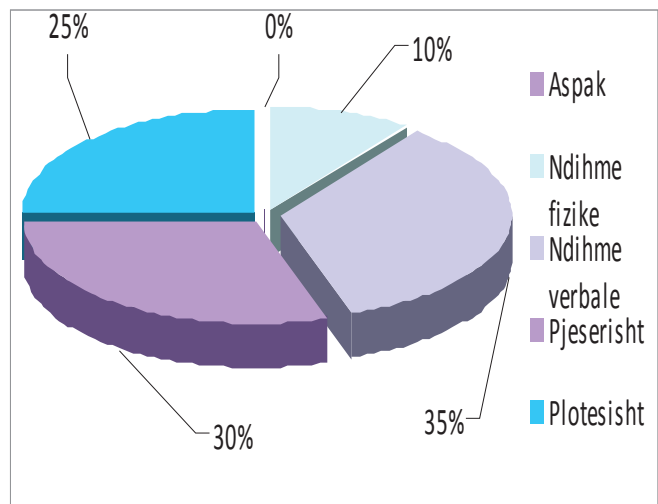
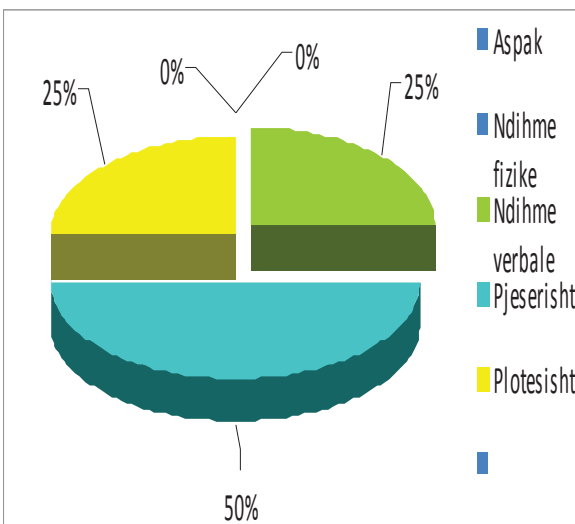
Graphical representation of the mental age of BS  
 BS Child, in 2002: 2.6 years.  
 2006: 5.1 years.201 .8 years.

Graphical representation of mental age MZ  
 Child M, in 2002 -2.5 years;  
 2006-4.7 years.2010



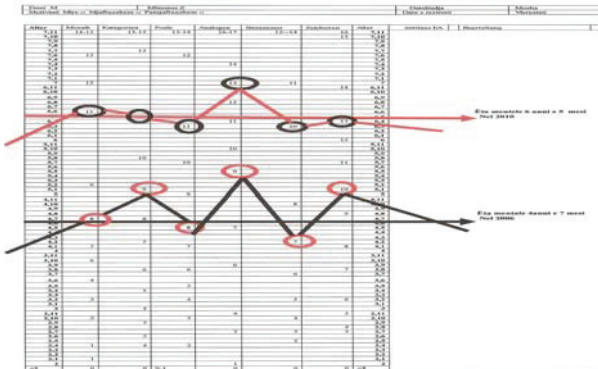
**Graphic presentation of training for self-service, BS.**  
 Not at all 0% Physical Assist 0% Verbal Assist 25%.  
 Partial 25% Complete 50 %

**Cognitive Training Graphic of MZ**  
 Not at all 0%.Physical Assist 10%. Verbal Assist 15%.  
 Partial 30% Complete 55%

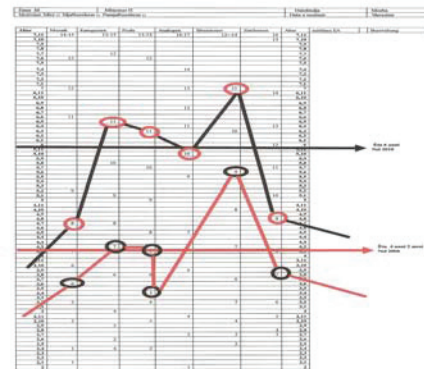


**Autistic children treated with rehabilitation education programs.**

Graphical representation of mental age M.Ç.  
In the year-2002-7.4-2.5years.2006 years.2010-6.3years.

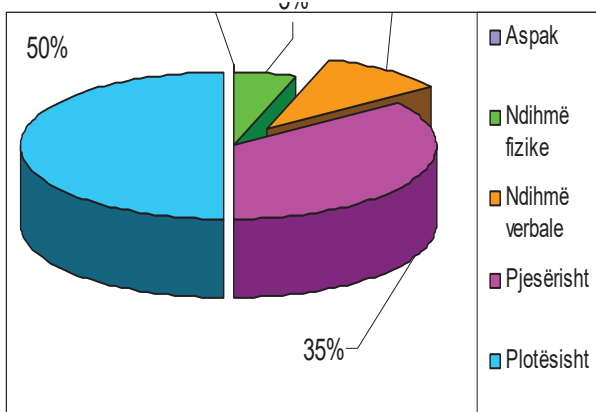


Graphical representation of mental age to MH  
In the year-2002-2.5 years-0.2006-4 .2,2010 6years



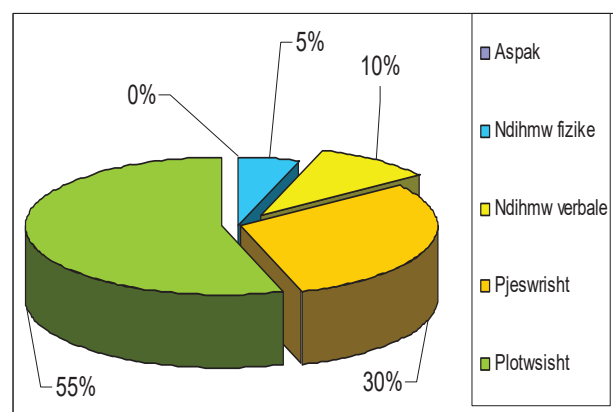
**M. Ç. Cognitive Training**

Not at all.0%.Physical Assist.5%. Verbal Assist.10%  
Partial.35% Complete.50%.



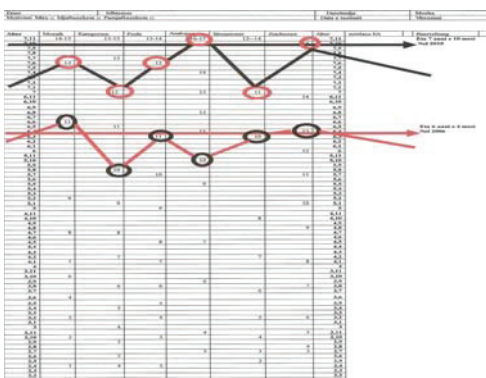
**M. H. linguistic training**

Not at all. 0%. Physical Assist5%. Verbal Assist5%  
Partial 35%. Complete 55%.

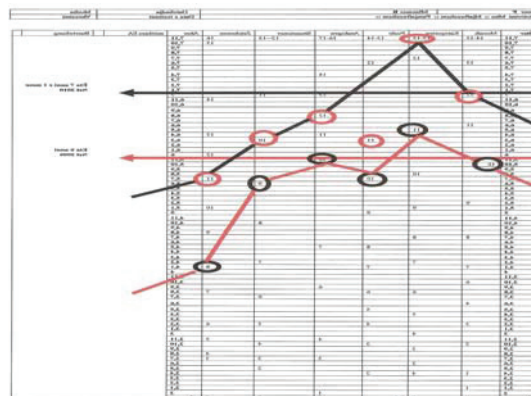


**Children with mental retardation treated with rehabilitation education programs.**

GJ.S.2002.2.5 mental age years.  
2006- 5.3 years.2011-7.10 years

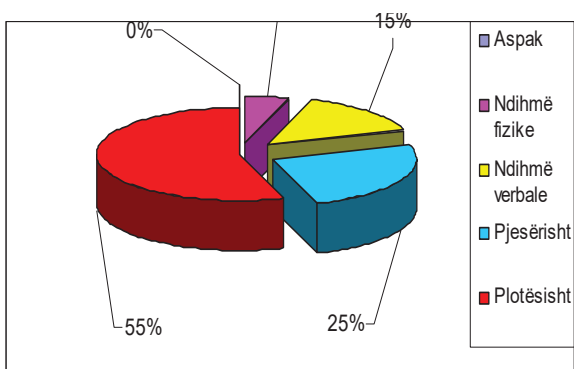


Mental age 2.5years PR2002.  
2006-4.7 years.2011 7.1 year



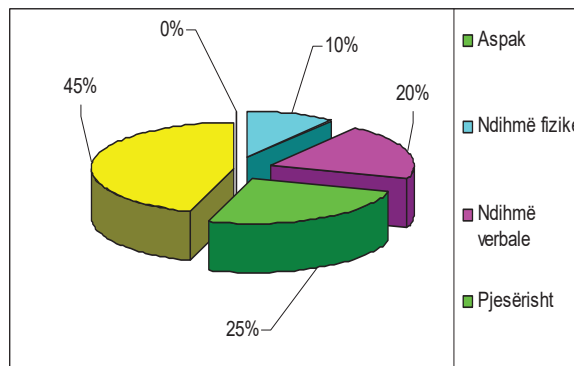
**Cognitive Training G.J.S.**

Not at all 0%, Physical Assist 10%, Verbal Assist 20%.  
 Partial 25%, 45% Complete.



**PR. Linguistic training.**

Not at all 0%, Physical Assist 5%, Verbal Assist 15%,  
 Partial 25%, Complete 55%

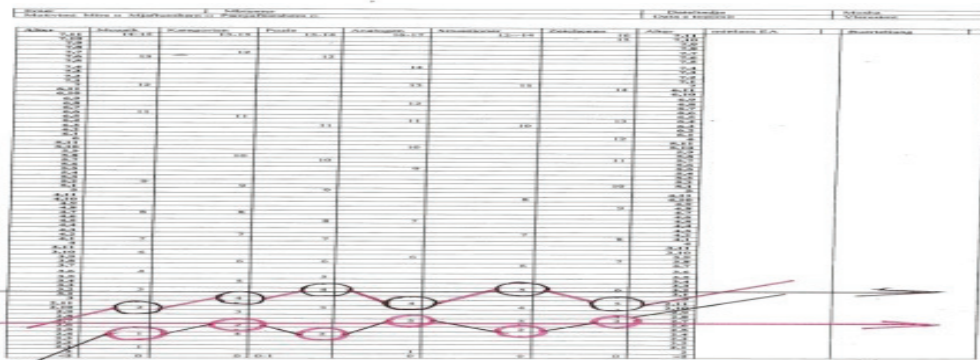


**Control Group.**

Down syndrome children not part of rehabilitation program.

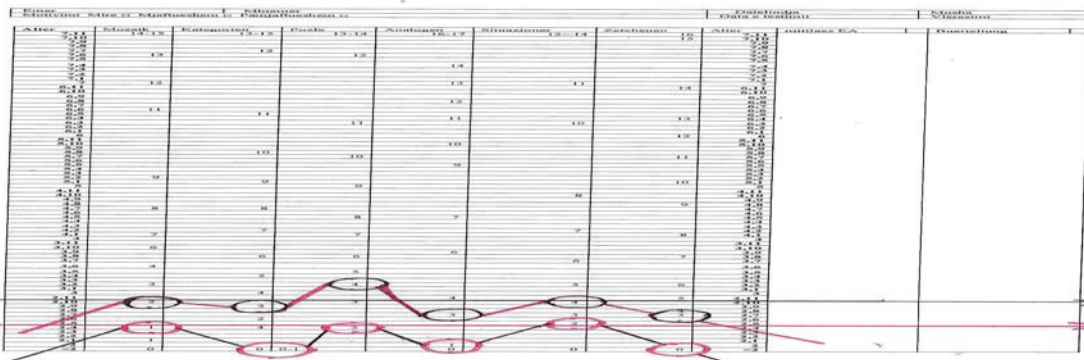
**Graphical representation of the mental age of AD**

AD 2.5 years in 2002; -2.11 years in 2011.

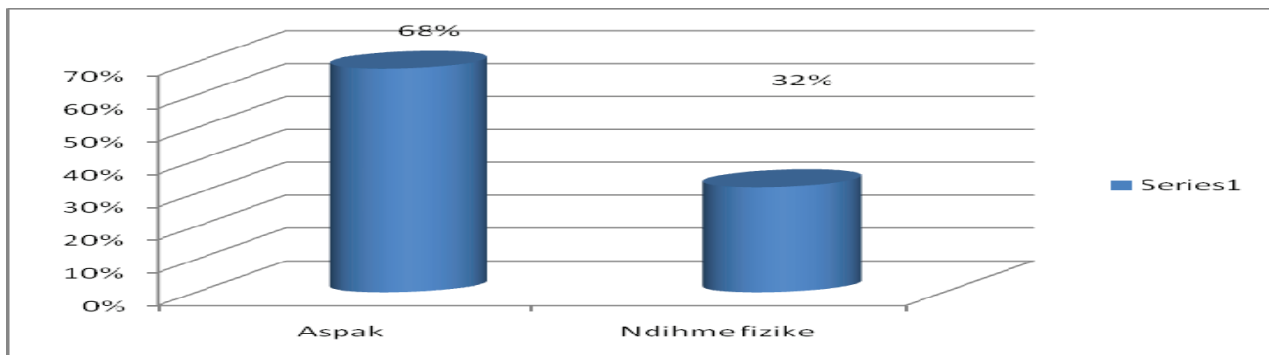


**Graphical representation of the child's mental age K.K.**

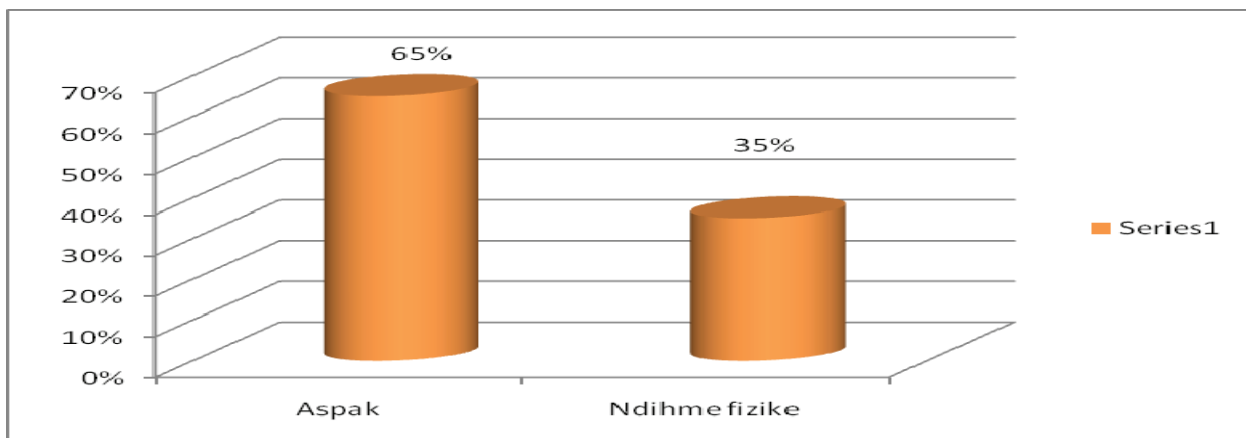
K.K. in 2002, 2.6 years; in 2011mosha.3.2 years



Graphical representation of the child Cognitive Development AD  
 Cognitive. No training. Help 68% physical 32%



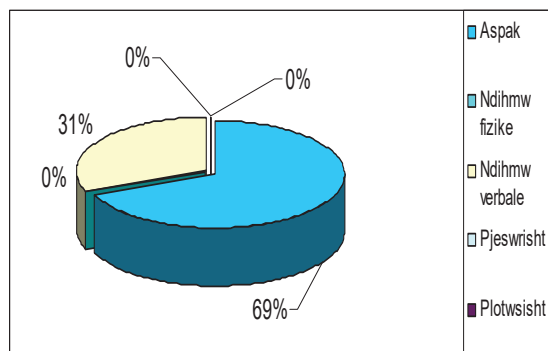
Graphical representation of self-service training for the child K.K.  
 No training 65%. Physical Assist35%



**Autistic children without exercise rehabilitation programs.**

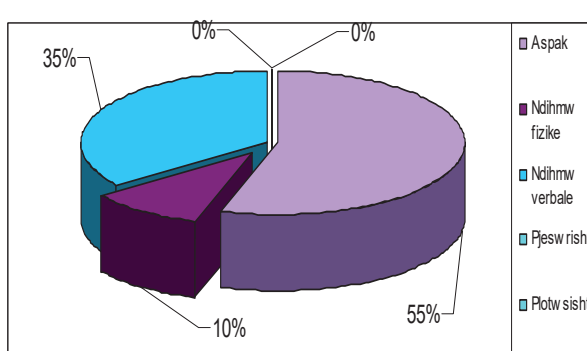
**GS. Cognitive Training.**

Not at all 69%, Physical Assist 31%, Verbal Assist 0%.  
 Partial 0%. Complete 0%.



**D.D. Linguistic training.**

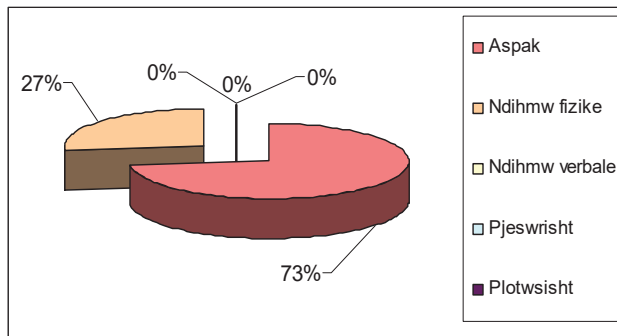
Not at all 55%, Physical Assist 35%. Verbal Assist 10%.  
 Partial 0%. Complete 0%.



### Children with mental retardation without exercise programs.

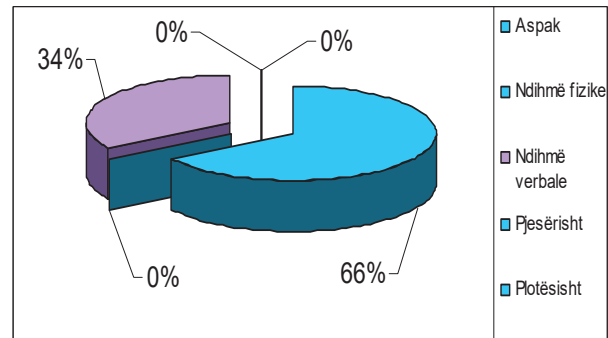
#### U.A Cognitive training.

Not at all 73%, Physical Assist. 27%, Verbal Assist 0%.  
Partial. 0%. Complete 0%



#### R.K. Linguistic training

Not at all 66%, Physical Assist 34%. Verbal Assist 0%.  
Partial. 0%, Complete 0%



### Discussions

1. From the SONE-R test results, it can be said that the effectiveness of rehabilitation programs is proven in the difference in growth of the mental age of children. In the period 2002-2011, mental age of the Down syndrome children under the practice of educational programs, increased on average of 6 years old was 6.5 months, while the same period of the mental age of children without exercise, the average increase of a 3 year old is 1.5 months. For the period 2002-2011 mental age of autistic children under exercise rehabilitation programs, rose for a 6 year old to 2.5 months. Autistic children's mental age free of exercise program grew on average 3 years. For the period 2002-2011, the average mental age of children with mental retardation increased to 7 year old in 5.5 month. The age of autistic children without training programs rose to 3.5 months.

2. Results measured through SSPS program package, show notable difference between the achievement of children through programs and children without exercise in all spheres of development, e.g. cognitive skills. The exercised children perform on average 55% of the program completely according to a fully Likert scale. Meanwhile unexercised children 68% of the sections in the test on cognitive skills do not complete them at all. Self-service skills for Down syndrome children were completed at 50% of the program, while the other ones did not complete 65 % of the test on this matter.

Autistic children under program completed 50% of the program on cognitive skills and 55% on linguistic skills. The control group children did not complete 69 % of the test on cognitive skills and 55% on linguistic skills. Mentally conditioned children completed 45% of the program on cognitive skills and 55% on linguistic skills. The other ones did not complete 73% on cognitive skills and 66% on linguistic skills.

3. According to the structured interviews, specialists, parents, children under the program, state the positive role of such programs in the psychophysical and psychosocial development of these children.

4. The focus group is made up of the Centers specialists, specialists of the area from civil society, homologous institutional specialist and of private foundations , who state the necessity of the implementation of such program in homologous centers.

5. The vertical observation compared to the direct observation were implemented and the difference was observed among those children under the program and those of the control group.

### Conclusions

Study results show:

- ❖ Effectiveness of implementation of new programs in dimensional developing abilities of many autistic, Down syndrome and mental retardation children.
- ❖ Role of modern methods and instruments in the development of effective therapies.



- ❖ Concrete didactic role of the academic and linguistic skills.
- ❖ Effectiveness of partnership with parents to professionals dealing with children.
- ❖ Role of tests in evaluating the progress of psycho-social psycho-physical development of children.
- ❖ Positive role of early treatment of children with disabilities.
- ❖ Increasing mental age of children treated.
- ❖ Improving the social behavior of children by reducing the degree of aggressiveness.
- ❖ Increase communication of children to communicate freely.
- ❖ Their progress in the field of academic training. These achievement led to the conclusion:
- ❖ The study confirmed the hypothesis that: educational programs accelerate the development process, psycho-social and psycho-physical well-autistic children, will win and mental retardation.
- ❖ *Psychosocial development of children with Down syndrome, autistic, and mental retardation rehabilitation is achieved through educational programs.*
- ❖ *Training and integration of children with autistic, Down syndrome and mental retardation is difficult but not impossible.*

### Recommendations

- ❖ Increased financial budgets to improve the quality of services.
- ❖ Factors and actors lobbying for the protection of the rights of children.
- ❖ Continuous training of staff and parents with methods of modern therapies.
- ❖ Ratifying the European Convention for Protection of Child Rights
- ❖ Approval of the Integral Law for the Protection of the Rights of disabled children
- ❖ Strengthening the partnership between parent-specialist to work with the same service standard
- ❖ Extending the typology of services to children.
- ❖ Implementing quality service standards, training of disabled children

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