
HELPING VISUALLY IMPAIRED CHILDREN ACQUIRE SELF-CARE SKILLS THROUGH MODELING: THE EFFECTIVENESS OF A TRAINING PROGRAM FOR MOTHERS USING VIDEOS

Salih Cakmak,

Education Faculty, Special Education Department,
Gazi University, Ankara/TURKEY.

ABSTRACT

It also aims to determine the effect of such a program on visually-impaired children's levels of fulfilling and maintaining the self-care skills taught by their mothers. There are two dependent variables of this research. The first one is the participating mothers' application levels of the teaching steps of self-care skills. The second one is the visually-impaired children's performing and maintaining levels of the self-care skills taught by their mothers. The independent variable of the research is the family training presented as a model which is developed through video. When the effect of the independent variable on the first dependent variable was being tested, "the multiple probe design among the subjects" was used and when the effect of the independent variable on the second dependent variable was being tested, "the multiple probe design across skills" was used.

Keywords: Visually Impaired Children, Family Training Program, Self-Care Skills, Early Childhood of Visual Impairments, Model with Video.

1. Introduction

Since visually -impaired children cannot directly observe the people in their surroundings, they can learn those basic skills later than their normally-seeing peers (Barraga and Erin; 2001). This situation can be regarded as normal by their parents when they consider their already existing visual handicap. However, both visually -impaired and unimpaired persons go through the same developmental stages at different time periods. This timing difference stems from the lack of life experience which is given or will be given to the visually impaired child (Barraga and Erin; 2001). When the visually impaired children don't receive the education pertaining to self-care skills and their daily life skills beginning with their early childhood, it takes them too much time to acquire those self-care skills. In the

family, the person who looks after the child becomes “active” when she is feeding, dressing him and providing him with routine life skills and when teaching him the self-care skills but the child who is visually impaired falls into a “passive” situation. The reason for this is that the person who is in charge of the child has difficulty taking feedback from the child or that it will be his task to perform those skills because of the incapability of the child. In the process of the mothers who cater for the visually impaired child’s needs related to those skills, the passive case of the kid becomes a handicap for him to be skilful in the psychomotor behaviors. Therefore, the child who suffers from any visual impairment, can fulfill those skills independently when he is older than his peers who have no visual impairment (Brody and Weber; 1994)

Family training programs are held to teach the families various skills and concepts. The implementation levels and delivery methods of those programs are various. One of those delivery methods is to make presentations to the families through video films. Video films are preferred in family training programs due to the fact that (a) they make it possible to observe the same model repeatedly (b) they make it possible for different participants to use the same model repeatedly (c) they make it possible for a skill to be revised when necessary to increase its memorability and (d) they are preferred as they can be used easily in situations outside the classroom such as home and office (Mechling, 2005). In addition, they are said to have positive effects such as providing instant feedback to the family and repeating the teaching practices many times.

2. Methodology

2.1. Participation and situation

Three visually impaired children who are in the pre-school period and their mothers are the participants of this research.

With the aim of determining the visually-impaired children who would take part in the research, three primary criteria were put. They were: a) children would not have any physical impairment, b) children would need at least five different self-care skills which are independent of each other, c) they would be between 4 and 6 years of age.

Four primary criteria were selected in determining the mothers who would take part in the research. The selected criteria were a) the mothers were literate, b) the mothers were given no parental training about skills beforehand, c) they would not know each other with the purpose

of removing the factors that might influence the dependent variable, d) they would volunteer in the research.

The characteristics of participant mothers and children are given as follows:-

Table 1 Information with regard to the characteristics of participant mothers

Mothers	Level of Education	Profession	Age	Number of Children
Mother 1	primary school graduate	housewife	41 years	Two children
Mother 2	primary school graduate	housewife	36 years	Two Children
Mother 3	university graduate	housewife	38 years	Three Children

Table 2: Information with regard to the characteristics of participant children

Children	Level of Education	Age	Diagnosis	Visual Acuity
1st Children	Preschool	64 months	Bilateral Nystagmus + Hypermetropia	Light perception and he uses his tactile sense as the primary sense
2nd Children	Preschool	67 months	Premature Retinopathy	Light perception and he uses his tactile sense as the primary sense
3rd Children	Preschool	62 monts	Premature Retinopathy	Light perception and he uses his tactile sense as the primary sense

2.2 Research design

There are two dependent variables of the research. The first one is “the levels of the application of the teaching steps of the self-care skills of the mothers”. The second is “the levels of the achievement of the visually impaired children while applying the self-care skills taught by their mothers”. The independent variable of the research is the maternal education presented through video as a model.

When the efficiency of the independent variable on the first dependent variable was being tested, the “multiple probe design across subjects” was used whereas the “multiple probe design across skills” was used when the efficiency of the independent variable on the second dependent variable was being tested.

The beginning levels of the participating mothers were gathered by the researcher using “The Measurement Instrument Implementing Process of the Teaching Steps of Self-care Skills” in measuring the skills such as “putting on pullover, putting on trousers and eating with a spoon”. The instruction “teach your kid how to put on a pullover” was given to the mothers and implementation processes of the mothers in teaching the steps were recorded. The same implementation process was recorded in the skills of “putting on trousers”, “putting on shoes” and “eating with a spoon”.

Table 3 The skills that Mothers practised in the Experimental Process

	Checking	Beginning Level	The end of Teaching
Mother 1	Washing hands	Eating with spoon	Eating with spoon
		Washing hands	Washing hands
Mother 2	Washing hands Eating with a spoon	Putting on stockings	Putting on stockings
		Putting on stockings	Putting on stockings
		Brushing teeth	Brushing teeth
Mother 3	Washing hands Eating with a spoon Putting on stockings	Putting on a pullover	Putting on a pullover
		Brushing teeth	Brushing teeth
		Putting on a pair of trousers	Putting on a pair of trousers
		Putting on shoes	Putting on shoes

The data of the beginning levels of the participating children were gathered by the main instruction about the skill (please put on trousers, etc) regarding their levels of achieving the self care skills that they need and it was observed how independently could they manage to succeed that skill. Children acquired the skills such as “putting on pullovers, trousers and shoes” that were stated in the following table when they were given those things by their mothers.

Table 4 The skills that children practised in the Experimental Process

	Checking	Beginning Level	The end of Teaching
1st Child	Putting on a pullover	Putting on a pullover	Putting on a pullover
	Putting on of trousers	Putting on of trousers	Putting on of trousers
	Putting on shoes	Putting on shoes	Putting on shoes
	Eating with a spoon	Eating with a spoon	Eating with a spoon
2nd Child	Putting on of trousers	Putting on of trousers	Putting on of trousers
	Putting on shoes	Putting on shoes	Putting on shoes
	Eating with spoon	Eating with spoon	Eating with spoon
3rd Child	Putting on of trousers	Putting on of trousers	Putting on of trousers
	Putting on shoes	Putting on shoes	Putting on shoes
	Eating with spoon	Eating with spoon	Eating with spoon

2.3 The Mother Education Program by Being a Model Through Video and Its

Application

The fact that there is no mother training program for the mothers of visually-impaired children in Turkey has made it necessary to develop a new program about it. With the aim of developing a “Mother Education Program by Being a Model Through Video”, the works on family training, the project for teaching those skills to the families, and the references using video technologies were studied (Cavkaytar, 1999; Crockett, Fleming, Doepke ve Stevens 2005; Kashinath, Woods ve Goldstein 2006; Maggil, Evans vd. 2007; Sharry, Guerin, Griffin ve Drumm, 2005; Özcan, 2004; Phillips ve Halle, 2004; Tavil, 2005; Yakin, 2009).

The Mother Education Program by Being a Model Through Video, which was developed and implemented in this research, contains the visually-impaired children whose needs were determined according to their basic self-care skills, their mothers who level what kinds of skills their children need, types of clues (verbal clue and physical aid) prize and using prize, working time, the preparation of working environment, the finding of the materials to be used in working, teaching practice and a program in which the implemented teaching sessions were followed. The program includes five sessions. The video films as a means of teaching were used for the realization of the determined aims of a mother training program. For that reason, the video films based on every goal, which is supposed to be given to mothers, were devised by the researcher. 10 scenarios on skills training were prepared by the researcher and they were analyzed by two instructors being experts in the field of visual impairment. The 2 of the 10 video films are about the levelling of skills, the 2 of them are about how a verbal and physical clue is implemented, the 3 are about teaching materials, the use of surrounding and prize, and the 3 of them are related to using the levels of teaching.

After receiving the specialist memory on the scenarios, a student of 56 month visual impairment attending the Mitat Enç Primary School of Visual Impairment, the kindergarden section, Ankara was given information about the written scenarios and he acted those scenarios in accordance with that information. The acted scenarios were recorded into the video by the researcher.

In the first session, the basic knowledge on self-care skills and determination by the mothers of the self care skills that children need were aimed. This session was made through verbal information and no video film was used. In the second session, it was aimed to teach mothers to divide the skill into steps. In this session, 2 video films were used. In the first film, the video about “switching on the faucet” and in the second film, the video about “opening up a bottle” were watched by the mothers with the aim of teaching them the process of grading the levels of a skill. In the third session, the aim was to teach the types of clues and how to use them to mothers. With this aim in mind, 2 video films about how to use “verbal clue” and “physical aid” were used. In the fourth sessions, 3 video films were used to teach mothers how to arrange the surrounding in the teaching of self-care skills, the choice of the materials including how to make necessary modifications in the selected materials, the timing of the teaching, the types of prizes and the teaching of how to use the prizes. In the fourth session, 3 video films were used to teach mothers which steps should be taken in the teaching of self care skills.

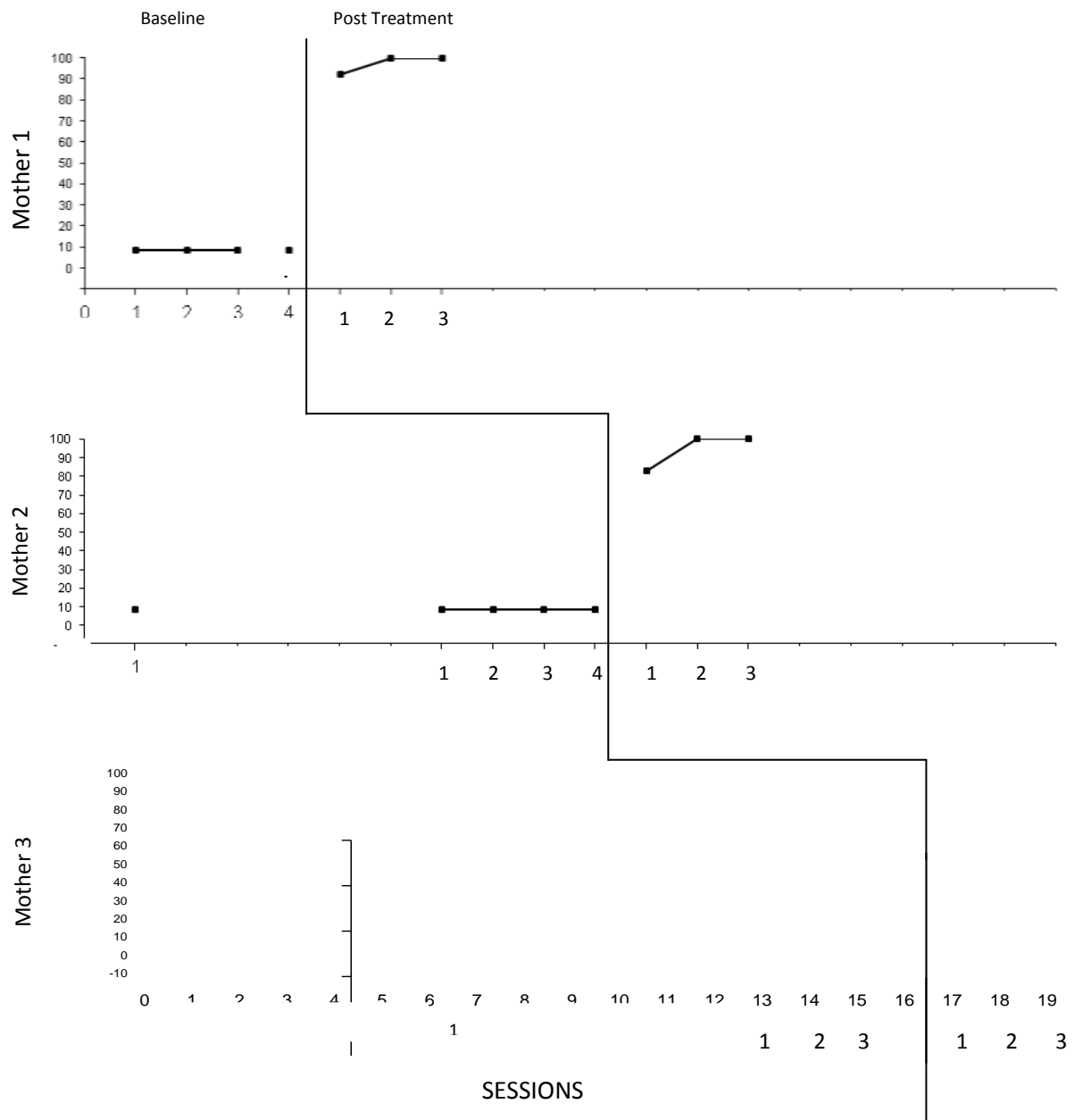
Each session was completed in close correspondence with the participating mothers in fifteen days and at 3 day intervals. After the completion of sessions, the researcher observed both the teaching of self-care skills by the mothers and their levels of fulfilling the self-care skills in children by visiting the mothers in their houses. With this aim in mind, the teaching practices of mothers were recorded in videos and at the end of the teachings, feedback was given to them according to the teachings they themselves performed.

2.4. Reliability

Inter-observer reliability and application reliability data independently by two observers each for subjects at least 20% of each teaching session 'In sin is collected. In this study, inter-observer reliability consensus for data analysis / opinion + union disagreements X 100 formula is used. Research the interobserver was 100% reliability. Application reliability mother behavior observed planned section 100 of mother behavior It is calculated by multiplying. Practitioners, all mothers also 100% reliable in practice sessions respectively.

3. Findings and Comments

3.1. Data about the levels of mothers teaching the self-care skills to their children and their comments.

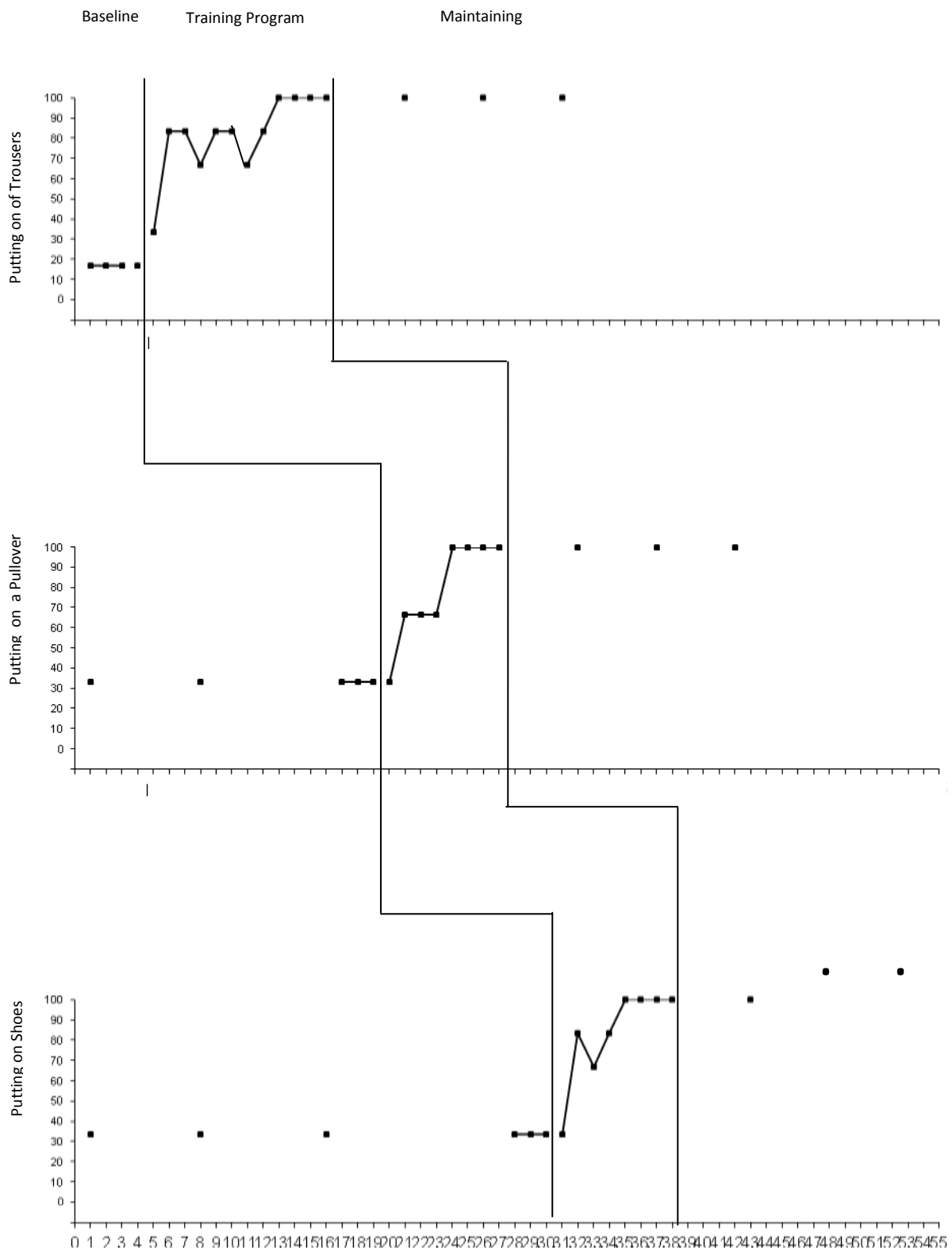


Graph 1 The application percentage of the participating mothers teaching the levels of self-care skills.

In Graph 1, at the end of the evaluations of the beginning levels of the first, second and third mothers before implementing the model presentation of Mother Training Program through Video, their levels of teaching the self-care skills to their children indicated stability and there was no significant change in the data gained from the implementation measurements until the teaching was done.

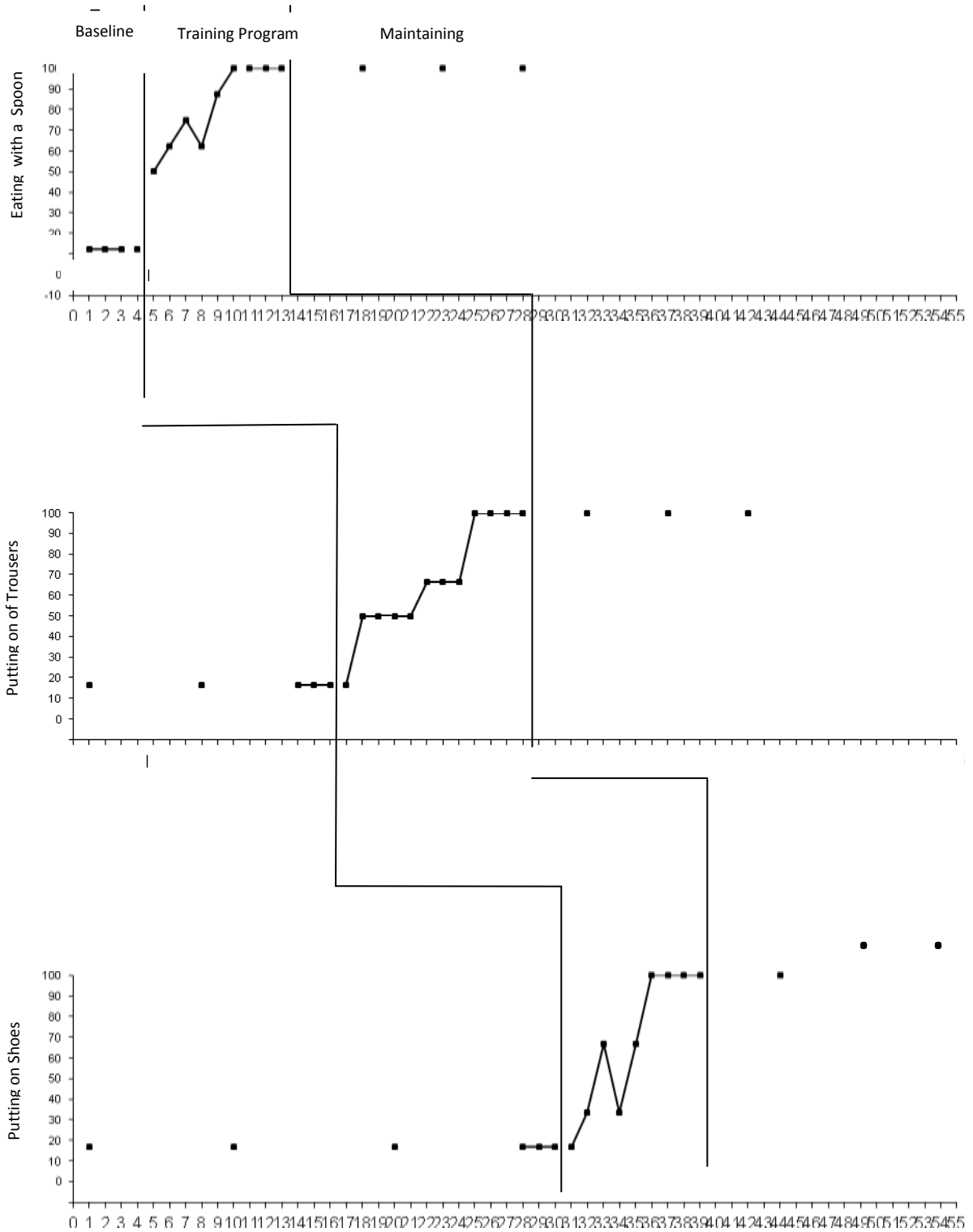
At the end of the Mother Training Program through Video, the levels of the mothers who taught their children the self-care skills reached the planned percentage (% 100).

3.1.2. The Findings and Comments Regarding the Children's Levels of Realizing the Self-care Skills.



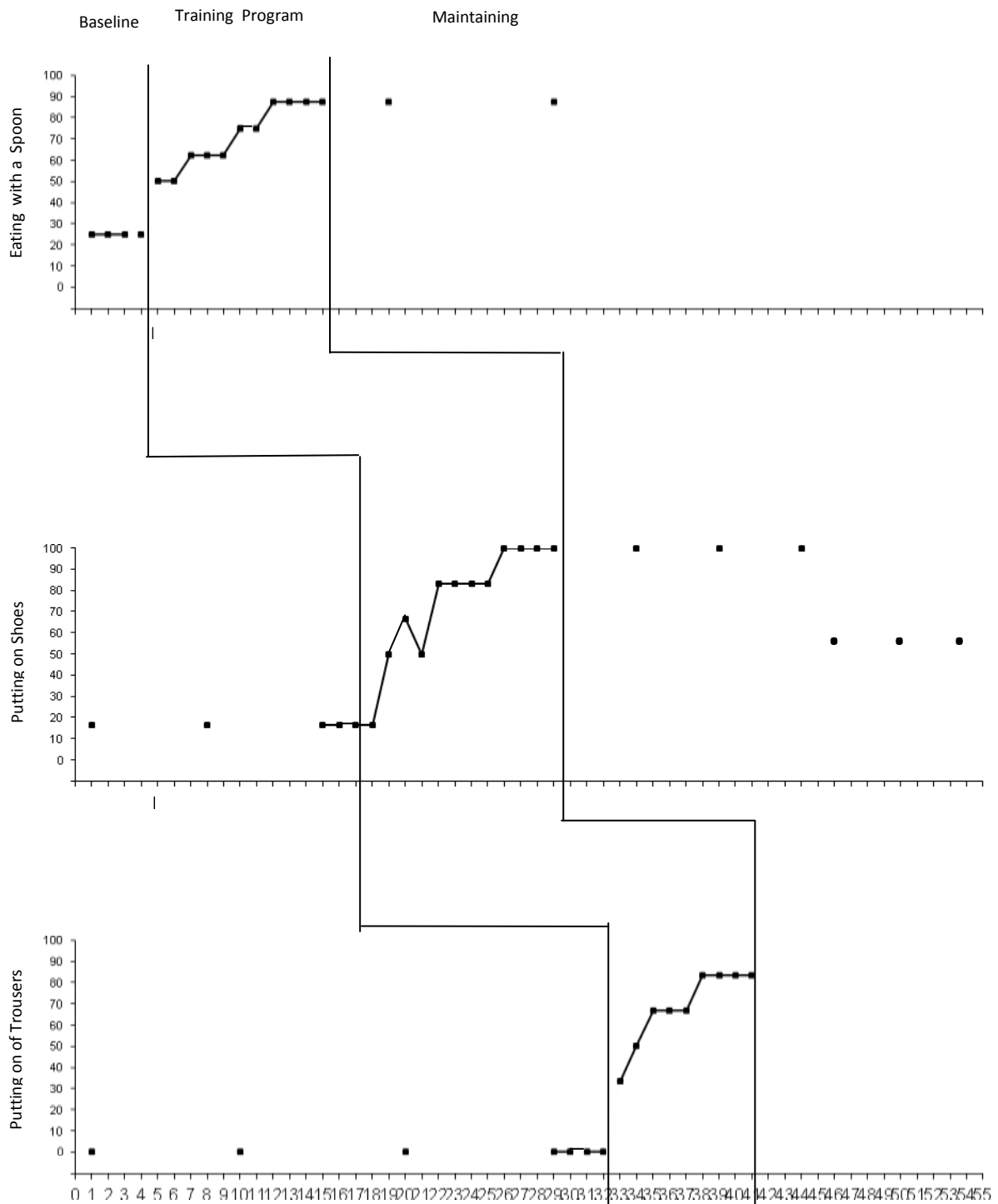
Graph 2: After the application of the first mother, the child’s beginning level, the teaching process, the levels of fulfilling skills in probe and follow up processes.

As can be seen in Graph 2, the child T is said to have fulfilled the level of “putting on trousers” at the end of the pre-teaching session but he has fulfilled the skills of “putting on a pullover” and “putting on shoes” at the end of the five teaching sessions completely independently (% 100). Moreover, after the post-teaching evaluation, the child T sustained to fulfill all the skills of “putting on trousers”, “putting on pullover” and “putting on shoes” completely independently (% 100). This is evident in the continuous data collected at five day-intervals.



Graph 3 After the applications of the Mother 3, the beginning level of the child, teaching process, levels of fulfilling the steps of skills in the inspection and follow up processes.

As it is seen in the Graph 2, the child G has fulfilled the skills of “eating with a spoon”, and “putting on shoes” at the end of six teaching sessions but he has fulfilled the skill of “putting on trousers” at the end of nine teaching sessions independently (% 100). In addition, according to the continuous data collected at five day –intervals, the child G sustained to fulfill all the skills of “eating with a spoon”, “putting on shoes” and “putting on trousers” completely and independently (% 100).



Graph 4 Skill Steps Application Rate Of The Child After Training Program For Mother-III By Baseline, Training Program, Probe And Maintaining Durations.

In Graph 4, it is seen that the child D has fulfilled the skill levels of “putting on trousers” at the end of nine teaching sessions completely independently (% 100). He fulfilled the skill “putting on shoes” with the percentage of % 83,3 at the end of six teaching sessions and he kept that percentage for four teaching sessions while the training was held constant. He completed the skill “eating with a spoon” at the end of eight teaching sessions with the percentage of % 88,3 and he maintained that percentage over four teaching sessions while the training continued to be stable. Additionally, after the post-teaching evaluation, it was seen in the continuity data collected at five day-intervals that the child D sustained to fulfill the entire “putting on trousers” completely independently (% 100). However, he maintained to fulfill the skill “putting on shoes” with the percentage of % 83,3 and the skill “eating with a spoon” with the percentage of % 88,3.

4. Discussion

When compared to the beginning levels, there has been considerable increase on the levels of fulfilling the self-care skills of children before and after the training program of the participating mothers. This conclusion indicates that the mother training using video as a model has been effective on the visually-impaired children in realizing the self-care skills and sustaining them.

In the international and domestic field study literatures, there are extensive studies on the language teaching methods to the parents whose children are incapable (Yakin.2010), on behavioral therapy techniques (Tavil,2005), family skill training (Cavkaytar, 1999, Özcan, 2004), and on testing the effectiveness of the parental training through model videos (Sharry, Guerin, Griffin and Drumm, 2005; Maggil, Evans, et al.2007; Phillips and Halle,2004; Crockett, Fleming, Doepke and Stevens 2005; Kashinath, Woods and Goldstein,2006).In this research, too, it has been found that a training program for mothers using videos as models is effective on teaching the visually-impaired children self-care skills.This conclusion also supports the aforementioned studies in which the video technology was utilized.

The first and second child who took place in the research became independent in all the skills they performed. The third child, while being independent in one skill he tried, could not be independent in the other two skills “eating with a spoon” and “putting on shoes”. The third child was not able to “put the spoon into the dish” when he was eating with the spoon, and he was not able to “put his foot into the shoe” when he was performing the skill “putting on shoes.” Although he was not able to become independent in all the three skills, he showed a

performance higher than the one on the beginning levels data and was able to sustain that performance.

REFERENCES :

1. Barraga, N., & Ern, J. (2001). *Visual impairments and learning*. Austin, TX: Pro-Ed.*
2. Branham, R.S., Collins, B.C., Schuster, J.W., & Kleirnert, H. (1999). Teaching community skills to students with moderate disabilities: Comparing combined techniques of classroom simulation, videotape modeling, and communitybased instruction. *Education and Training in Mental Retardation and Developmental Disabilities*, 34, 170-181.
3. Brody, J. & Webber, L. (1994). *Let's Eat: Feeding a Child with a Visual Impairment*. Blind Childrens Center: Los Angeles.
4. Cavkaytar, A. (1999). *Parent Training Program on Their Mentally Handicapped Children's Self Care and Domestic Skill Learning*. Doktora Tezi. Anadolu Üniversitesi.
5. Crockett, L.J., Fleming, R.K., Doepke, K.J. & Stevenes, J.S. (2007). Parent Training: Acquisition and Generalization of Discrete Trials Teaching Skills With Parents of Children With Autism. *Research in Developmental Disabilities*, No:28, 23-36.
6. Kashinath, S., Woods, J., & Goldstein, H. (2006). Enhancing generalized teaching strategy use in daily routines by parents of children with autism. *Journal of Speech, Language, & Hearing Research*, 49, 466-485.
7. Mahoney, G., Kaiser, A., Girolametto, L., Macdonald, J., Robinson, C., Safford, P. & Spiker, D. (1999). Parent Education in Early Intervention. *Topics in Early Childhood Special Education*, 19, 3, 131-140.
8. Mechling, L. (2005). The effects of instructor-created video programs to teach students with disabilities: A literature review. *Journal of Special Education Technology*, 20,25-36.
9. Özcan, N. (2004) *The Effectiveness of Toilet Skill Trained to Mental Retarded Children Family Trained Program*. Master Thesis. Anadolu University.
10. Phillips, B. & Halle, J. (2004). The Effects of a Teacher-Training Intervantion on Student Interns' Use of Naturalistic Language Teacing Strategies. *Teacher Education and Special Education*, Vol.27, No.2, 81-96.
11. Sharry, J, Guerin, S, Griffin, C, & Drumm, M. (2005) An Evaluation of the Parents lus Early Yerars Programme: A Video-based early Intervention for Parents of Pre-school Children with Behavioural and Developmental Difficulties. *Clinical Child Psychology and Psychiatry*, SAGE Publications (London,Thousandb Oaks and New Delhi), Vol 10(3): 319-336.
12. Tavil, Y. Z. (2005). *The Effect of Behavior Management Family Training Program to Mothers' Behavioral Processes Gaining*. Doctoral Thesis. Gazi University
13. Yakın, M. (2009). *Efficiency of Parent Training on Mothers Use of Naturalistic Language Treatment Procedures*. Mastering Thesis. Gazi University.