

THE EFFECTIVENESS OF INCIDENTAL TEACHING WITH DISTANCE FAMILY EDUCATION ON MAND (REQUEST REPORTING) TRAINING

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ABSTRACT

In the study, the effect of incidental teaching method on teaching students with moderate mental retardations the ability to report requests through distance family education was examined. The study was conducted with a 10 years old male student with moderate mental retardation and bilateral mild hearing loss. The aim of the study is to contribute to the student's expressive language skills, which is one of the expressive language skills by teaching 20 determined words. ABAB model which is one of the single subject research models was used in the study. According to the findings of the study, the incidental teaching method is given with distance family education, contributed to the student's gaining the ability to express requests. As a result of the study it was seen that the incidental teaching method applied with distance family education was effective in gaining the ability to express requests.

Keywords: Moderate mental retardation; distance family education, incidental teaching, request statement ability (mand)

İSTEK BİLDİRME BECERİSİNİN ÖĞRETİMİNDE UZAKTAN AİLE EĞİTİMİYLE FIRSAT ÖĞRETİMİ YÖNTEMİNİN ETKİLİLİĞİ

ÖZET

Çalışmada, fırsat öğretimi yönteminin orta düzeyde zihinsel engelli öğrencilere istekleri bildirme becerisinin uzaktan aile eğitimi yoluyla öğretilmesine etkisi incelenmiştir. Çalışma, orta derecede zihinsel engel ve iki taraflı hafif işitme kaybı olan 10 yaşında bir erkek öğrenci ile yapılmıştır. Araştırmanın amacı, belirlenen 20 kelimeyi öğretmek öğrencinin ifade edici dil becerilerinden biri olan ifade edici dil becerisine katkı sağlamaktır. Araştırmada tek denekli araştırma modellerinden ABAB modeli kullanılmıştır. Araştırmanın bulgularına göre, uzaktan aile eğitimi ile birlikte verilen fırsat öğretimi yöntemi, öğrencinin isteklerini ifade etme becerisi kazanmasına katkı sağlamıştır. Araştırma sonucunda uzaktan aile eğitimi ile uygulanan fırsat öğretimi yönteminin istekleri ifade etme becerisinin kazandırılmasında etkili olduğu görülmüştür.

Anahtar Kelimeler: Orta düzeyde zihinsel engel; uzaktan aile eğitimi, fırsat öğretimi, istek bildirme becerisi

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1. INTRODUCTION

Communication is the process of transmitting and conveying information of thoughts or feelings between individuals and groups by using gestures and facial expressions, sounds, syllables, words or sentences, in other words verbally or non-verbally. The language we speak is the key element of verbal communication. We use the language as a tool to convey our ideas to each other, to convey our thoughts and to explain our wishes. We are constantly in speaking and listening position in our individual and social relationships.

Communication can not be limited with words. People communicate with all their bodies and this is called “nonverbal communication”. In non-verbal communication people manifests with various attitudes such as body language, gestures and facial expressions, sitting and posture. In the communication process everything has meaning, people say or not, do it or not.

Communication starts with two people become aware of each other. Once people become aware of each other, they want to meet the five essential relationship requirements. These requirements are being cared for, accepted, valued, seen adequate and loved. People use "resource, message, channel, recipient and feedback" elements in the communication process to meet them (Selimhocaoglu 2004, p.3).

There are some principles that individuals should adopt and use in the communication process. These principles are listed by Cüceloğlu (2002) as “Every individual should believe that he / she is valuable and accept the other person unconditionally. Each individual must believe that he/ she has the power to solve own problem. He / she should be able to show oneself as he / she is and be consistent in his feelings, thoughts and behaviors. Each individual should be able to empathize.”

The communication process starts with the born and it maintains existence dynamically in every stage of our lives. Communication is one of the most important tools from crying, gestures and facial expression to demanding something, to making discoveries that affect the universe and to narrating these discoveries.

Communication is used in a wide range from concrete situations to the most abstract situations and it makes this wide range develop more and more day by day. Human beings progress through communication. In short, communication means understanding, get along with, being understood, sharing and developing. Each individual must have and use this skill in own daily life in order to lead a quality life.

1.1. Developmental Characteristics of Individuals with Moderate Mental Retardations

Individuals with moderate mental retardation defines as individuals who intensely need special education and supportive education services in the acquisition of basic academic, daily life and work skills due to limitations in their cognitive, behavioural, affective and social skills. Individuals with moderate mental retardations are usually noticed during early student education period and developmental characteristics differ significantly from other students. These individuals learns academic concepts late and difficult, their attention and interest are short-lived, dispersed quickly and

their short-term memory is weak. Language development and speech may be delayed. Individuals with moderate mental retardation acquire language generally slower and more delayed than their normal peers, especially in terms of structural elements such as syntax, morphology and phonetics. They may have social, emotional and behavioral problems and may have a delay in acquiring gross and fine motor skills. When the cognitive, behavioral, affective and social skills of individuals with moderate mental retardations are supported by applied behavioral analysis principles and methods, they can improve themselves in line with their competencies.

Applied Behavior Analysis (ABA) is a comprehensive discipline addresses behaviors that contribute to people's independent living in an observable and measurable way and aims to change behaviors in the desired direction. Every finding obtained during the applied behavior analysis process is noted and if necessary planned or regularly mid-term evaluations are made. The natural teaching method and it's subtitle incidental teaching method, which will be used in this study, is one of the methods based on applied behavioral analysis principles (Tekin İftar, 2014).

Natural teaching method is mostly used in the natural teaching of expressive and receptive language communication skills and social skills in the daily life of individuals. The biggest advantage of the method in the context of the student's attention and interest is able to the natural inclusion of teaching objectives embedded in daily routines into his / her own daily life. The method enable the student to use the material or activities that he / she has chosen and requires landscaping in line with the student's abilities and interests. However, natural teaching method interaction allows to the student, his/her parent, sibling or peer to initiate it according to the student's language communication or social skills performance. Thus, other members of the family and peers can also be actively involved in the education process. So, the implementation of the method in this way also positively affects the efficiency and permanence of the teaching. The natural teaching method is carried out systematically. 'Natural teaching methods includes a series of teaching strategies developed based on the principles of applied behavior analysis such as activity-based or embedded teaching, incidental teaching, conversational teaching, basic response teaching and transition-centered teaching (Tekin İftar, 2013).'

The method used in this study is the incidental teaching method, one of the natural teaching methods. Incidental teaching is a natural teaching method and that starts with the communication initiative of the student used for the acquisition or development of communication skills and requires structuring the environment in line with the student's interests and includes many communication experiments. The implementation of this method according to the interests of the student ensures high generalization and permanence. The main Applied Behavior Analysis (ABA) techniques included in incidental teaching are shaping, offering clues, fading the clue and reinforcing. In incidental teaching, firstly main aim is a long term communication process and the prerequisite skills of this purpose are determined. The environment should arranged in a way that attracts the student's attention and enables them to request communication. The materials that will attract the attention of the student are placed in the environment in a way that the student can not easily reach. The aim is to make the student attempt

to communicate by using gestures and facial expressions, sounds, words etc. to enable reach the object. With this anticipated initiative, the first attempt at incidental teaching begins.

According to Tekin İftar (2013), the stages which are included in incidental teaching trials are mentioned below.

"1. Observe ”: At this stage, the student is expected to make a communication attempt using gestures and facial expression, sounds, syllables or words without any guidance. For this purpose, the student is monitored.

"2. Accept and request”": At this stage, the student's communication initiative is properly accepted by mentor and is asked to demonstrate a higher level of skill.

"3. Wait”": At this stage, the student is given an opportunity to attempt a higher level of communication. For this purpose, 3 or 5 seconds are waited. As the student progresses, the waiting time is gradually increased to 8 or 10 seconds.

"4. Verify and reinforce”": At this stage, the high level communication initiative of the student is verified and reinforcement is made by giving the object requested by the student.

"5. Offer a clue”": At this stage if expected communication attempt does not shown or an incorrect communication attempt make, one or more of the physical, model, verbal or gestural cues is offered depending on the type of help student's needs. It should be note that to give the hint in a way that will increase the desired behavior according to the student's competencies and reduce the inappropriate behaviors. The student should not be given a higher level clue than necessary.

"6. Wait”": At this stage, the student is given an opportunity to attempt a higher level of communication. For this purpose, student are waited for 3 or 5 seconds. As the student progresses, the waiting time is gradually increased to 8 or 10 seconds.

"7. Verify and reinforce ”: At this stage, the high-level communication initiative is accepted and the object requested by the student is given to the student and reinforcement is made.

"8. Move to next try ”: The student is allowed to engage for a while with the reinforcer gained through the communication initiative, and then the reinforcer is removed from the environment. The student is expected to make a new communication attempt. All stages of incidental teaching trials are repeated in each communication attempt. As the student progresses, the waiting times in stages 3 and 6 are gradually increased. Clues, if used, are progressively dimmed. Fading the clues will be achieved by being a model and not using verbal cues. The communication behaviors expected from the student are gradually increased. But student's language and communication performance should take into consideration in a way that does not overwhelm to the student.

1.2. Technology Used

Smart phones were used for distance education studies. The process started by downloading the ‘ZOOM’ mobil application to the phone. ZOOM is an application that offers face to face training in a virtual environment. It is used with internet infrastructure. With this application, video calls can be made both individually and as a group, as well as file sharing. The course time information created on ZOOM

is shared with the parents. The practitioner parent is present with the student when the lesson time comes and applies the incidental teaching method previously taught to him/her under the supervision of the teacher. The teacher participates in the education process by giving the instructions of the incidental teaching method to the practitioner parent when necessary.

When the literature is examined, there are other studies encountered supporting the importance of this research. According to the research conducted by Mısır Horasan & Birkan (2015), it is very important for individuals with disabilities to acquire communication skills because communication contributes to the development of independent living skills. Individuals with disabilities have serious problems in using communication functionally. Therefore, functional communication skills should be studied first with individuals with disabilities. In this study, which was developed within the framework of the importance of functional communication, it is aimed to provide participants with the ability to declare the request with distance education by using incidental teaching method. In addition to other communication skills studies in the field that, often involves students with autism. In this study, the ability to declare the request was studied with a male student with moderate intellectual disability, and bilateral mild hearing loss. This research, in which a different communication skill is studied with a different disability group, can be a resource for field professionals, families and university students on how to study communication skills with individuals with moderate intellectual disabilities in the literature. The ability to declare the request is among the first and most important gains of the textbook "Communication Skills" published by the Ministry of National Education for the 1st, 2nd, 3rd and 4th grades of special education practice schools. The request reporting behavior is defined in this book as; the student declare the request of the object independently by using gestures and face expression, sounds, words or a regular sentence about the object which he/she wants, after the teacher or the person with whom he/she is in contact poses one of their questions 'What do you want?' or 'Do you want something?' (Birkan 2020, pp.10). Gaining the ability to express wishes to individuals with disabilities will enable them to declare their requests. Gaining the ability to declare the requests to individuals with disabilities will enable them to express their wishes. In the research conducted by Sönmez & Diken (2010), 27 single subject research studies were examined. These studies revealed that communication skills reduce problem behaviors. In this study, it is thought that teaching communication skills will help reduce problematic behaviors caused by the inability to express declare requests. Gaining the ability to express requests will also create a foundation for gaining other communication skills. We can observe that individuals with advanced communication skills participate more in social life and this improves their self perception in the individuals around us. It is known that individuals with developed self-perception are also happier in their own lives.

The 20 words determined to be studied in the study were chosen among the words that the student will need and think most in daily life, in accordance with the level of the student. This has increased the functionality of the skill. Considering all these facts, it is concluded that the subject studied in the research is important and necessary.

2. METHODS

2.1. Research Model

ABAB model, one of the single subject research models, was used in the study. This model consists of 4 phases.

A₁ phase: It is the phase where the first baseline data are collected.

B₁ phase: It is the first implementation phase.

A₂ phase: It is the phase where the second baseline data are collected. In this phase, the implementation of the independent variable is suspended and data is collected until stable data on the level of the dependent variable is obtained.

B₂ Phase: It is the phase in which the independent variable is started to be implemented again and the data regarding the changes seen in the level of the dependent variable are collected.

2.1.1. Internal-External Validity and Experimental Control in ABAB Model

Internal-external validity and experimental control in ABAB model are provided estimation, verification and iteration required to establish a functional relationship. The fact that the change seen in one participant takes place at exactly the same phase in the other participants reveals that this change is not due to chance but to the implementation. Change in the desired direction in the dependent variable with the implementation of the independent variable and when it is not implemented, the rapid resemblance of the dependent variable to the data in the first base phase also strengthens the internal validity. Although the repetition of phases A and B in the same participant strengthens external validity, the external validity of the findings can be increased by the repetition between participants. Experimental control in the model is established when the level of the dependent variable changes in the desired direction during the implementation phases and there is a regression in the baseline phases (Tekin İftar, 2014).

In this study, internal-external validity and experimental control in ABAB model was ensured by that when incidental teaching with family education was applied the demanding behavior increased, and when the incidental teaching method with family education was not applied the data showed similar results with the data at the baseline level. This results shows that the internal validity of the ABAB model is strong. Repetition of stages A and B with a 10 years old male student with moderate mental retardation and bilateral mild hearing loss also strengthened external validity. In addition, in order to increase internal and external validity, the family was informed that they should not to teach the skill of demanding requests outside of the classroom, and this rule was reminded to the family after each teaching session.

2.2. Participants

The study was studied with, a 10 years old male student who were diagnosed with moderate mental retardation and has bilateral mild hearing loss. Also, this student had not received any previous training on request demanding skills. He also attended a special education practice school between 09:00 and 14:30 on weekdays. He has been using hearing aids since July 2020. Prerequisite skills for the

participant determined as a) Having a valid report on the diagnosis of moderate mental retardation, b) Not having received a training in the skill of demanding a request, c) Eye contact and common interest, d) Being able to express his wishes by using gesture and facial expressions.

2.2.1. Practitioners

Two practitioners and 1 student participated in the study. The teaching of request demanding skill is given to the practitioner parent (to the student's sister) by the practitioner teacher (author of this study) and it was applied to the student by the practitioner parent. The practitioner teacher who carried out the study, graduated from Department of Special Education Mentally Handicapped Education Undergraduate Program and continues her graduate education in the field of Disability Studies. The practitioner teacher worked in a special education and rehabilitation center for 6 months and she has been working as a special education teacher for the Ministry of Education for 3 years. In this study, she took part in determining the aims of the research, planning the experimental process, analyzing the data, planning the implementation and reporting the results. The practitioner teacher also works in the special education practice school where the student attends and is the student's classroom teacher. The practitioner parent is secondary school graduate. She attends the 9th grade in high school education during the research process. The practitioner parent carried out the implementation process with the guidance of the practitioner teacher.

2.3. Implementation Area

The implementation was carried out in the student's home. The room in which the study was conducted is 25 square meters. There is a stove on the right at the entrance. There is a television unit directly opposite the door and a television above it. There is one window. Cushions are installed to sit at the bottom of each wall. The floors are completely covered with carpet. There is no sofa or table in the room.

2.3.1. Tool and Materials

The tools and materials as food, beverages and actions used in this study were selected in line with the goals of the individualized education program, which attracted the attention of the student and were appropriate for his age and competencies. The reinforcement determination list was used to identify this tools and materials, food, drink and actions. Telephone interviews were also made with the family to identify reinforcers. Reinforcers were selected by considering the reinforcement determination form and family interviews as ball, cart, dish cloth, pasta, cake, coke, water, food made at home that day, listening to "Ali Baba's Farm" song (a kind of Turkish nursery rhyme) and playing with animal models.

2.4. Research and Implementation Process

In the process of implementing the research, the baseline data, the preliminary preparations for the research, the request demanding teaching process and the data collection process were included.

2.4.1. Baseline Data

Before starting the teaching, baseline data were collected in order to determine the performance of the student regarding the target behavior. The baseline phase was continued until stable data obtained

from the student for at least 3 consecutive sessions. In each phase, the activities of performing the action and imitating sound to ask for objects, food and drink were included. During these process, the student's correct and incorrect responses are included in the student reactions column in the data collection form as '+' sign for correct responses and '-' sign for false responses.

The baseline data were collected from (Monday) 23.11.2020 to (Friday) 27.11.2020, in 4 lesson hours in a week. 20 words were determined to collect the baseline data. These words are 'su (water), bez (cloth), top (ball), araba (car), aç (open), at (throw), tut (hold), oyna (play), mee, möö (mo), miyav (meow), hav hav, aii, kola (coke) , yemek (meal), kek (cake), kaşık (spoon), ekmek (bread), ye (eat), kapat (close)'. In the first phase water in the glass, bread, dishcloth, car and cake were shown to the student with the help of the teacher from a distance to the family and he was asked 'What is this?'. He just made meaningless sounds and he did not say any syllables or words. Then, by showing pictures of lambs, cows and donkeys he was asked 'How do these animals sound?'. He just made meaningless sounds and he did not utter any syllables. Therefore, his performance was determined as '0' for the first phase of the baseline data.

In the second initial data collection phase, he was shown a ball, spoon and coke with the teacher's directed the family from a distance and he was asked 'What is this?'. He just made meaningless sounds and he did not utter any syllables or words. Then, the ball game was played with the student. During this playing game, he is expected to say 'at' (throw) or 'tut' (hold), when the ball was not thrown to him and the ball thrown by he was not held, but he did not use any syllables. He only expressed by gestures that he wanted ball to be thrown and held. During the meal, a box of coke was given to the student and expected to say 'aç' (open it). He could not open the box and again expressed his request for help only with gestures. Within these observations, his performance was determined as '0' for the second phase of the baseline data.

In the third initial data collection phase made by the teacher directed the family from a distance. Student and his sister sat down at the table and pasta which was his favorite food was made. No food or drink was placed in front of him. Pasta and coke were put on the table where they could see and but not reach. In this way, he was expected to use the words 'yemek' (meal) and 'ver' (give). He expressed his request for food and coke only by gestures. After the meal, he was shown pictures of dogs and cats and he was asked 'How do these animals sound?'. He just made meaningless sounds and did not utter any syllables or words. Then the game of playing with a car, one of his favorite games, was played with him. The game was stopped when he was most excited and he was expected to say 'oyna' (play). He just made meaningless sounds and again just used gestures and facial expression to express his requests. A material has been prepared for the student to use the word 'kapat' (close). This material was as a rhythm instrument created by rice, beans, chickpeas and lentils in a jar. This kind of material was chosen because of he loves music and rhythm. He was allowed to play with the material for a while and the material was taken and the lid of the jar was opened. He took the jar and tried to close the lid, but he has not been successfull. He did not say 'kapat' (close) to practitioner parent and again expressed his request

with gestures and gestures. Within these observations, his performance was determined as '0' for the third phase of the baseline data.

The second beginner level collection phase (A2) started on 21.12.2020 and ended on 25.11.2020. In this phase (A2), the teaching process with the student was terminated. It was observed that as the teaching process ended, he displayed a similar performance to the initial level data. The determined 20 words were repeated, as was done in the first baseline data collection phase. The student imitated 'mee', 'möö'(mo), 'aii' animal sounds in the first two lessons of a week. In the third lesson, he only imitated 'mee' and 'möö'(mo), animal sounds, and in the fourth lesson he could not express any syllables or words. Therefore, his performance was determined as '15, 10, 0' within the results obtained in the second initial level collection phase.

2.4.2. Preliminary Preparations for Research

Before the research, the practitioner parent was called to the school. Practitioner parent was informed about the long term goals and the prerequisite skills and how to arrange the research area. The questions that the practitioner parent did not understand or were curious about were answered by the practitioner teacher.

20 words determined to be studied in the research. These words are 'su (water), bez (cloth), top (ball), araba (car), aç (open), at (throw), tut (hold), oyna (play), mee, möö (mo), miyav (meow), hav hav, aii, kola (coke) , yemek (meal), kek (cake), kaşık (spoon), ekmek (bread), ye (eat), kapat (close)'. The first teaching session started on Monday, 30.11.2020 and ended with the 3rd teaching session on Friday, 18.12.2020. 8 words were chosen to work with the student in the first practice session as 'su (water), ekmek (bread), bez (cloth), araba (car), and kek (cake), mee, möö (mo), aii. In this session, the teacher directed the family from a distance and worked with the student at the breakfast in the living room and accompanied by the song Ali Baba's Farm.

The lesson information created to start the teaching sessions was delivered to the practitioner parent in the form of photographs. During the lessons, the practitioner teacher started the lesson. Practitioner parent and student also attended the lesson. The practitioner parent prepared the research area in the way that the practicing teacher described it. Food, drinks and toys that the student likes were placed in places where he could see but not reach. Then, the phases of the incidental teaching method started to be implemented.

1. "Observe": In the observation of the practitioner parent and practitioner, the first object that attracted his attention was the dish cloth. As a result of the interview with the family it was learned that he loves to fold the dish cloth and whenever he sees it, he takes and folds it.

2. "Accept and request": The practitioner parent expected a communication attempt. He just went to the place where the dish cloth was and made meaningless sounds by pointing it with his finger. The practitioner parent accepted this communication initiative by saying 'Yes, there is a dish cloth' and he wanted this initiative to demonstrate a higher level of skill.

3. "Wait": The practitioner parent allowed him to attempt a higher level of communication, for this purpose, she waited 3-5 seconds. He started to make more meaningless sounds. The practitioner increased the waiting time of the parent to 8-10 seconds.

4. "Verify and reinforce": Since there was no meaningful high level communication, verification and reinforcement could not be done.

5. "Offer a clue": The implementer parent got close and made eye contact with him, and said 'Look in my mouth and say, 'bez' (cloth)'. He presented the modeling and verbal clue together.

6. "Wait": The practitioner parent allowed him to attempt a higher level of communication again. He waited 3-5 seconds to say 'Be' or 'bez' (cloth). He just said the 'be' syllable. The practitioner increased the waiting time to 8-10 seconds for the parent to say 'bez', but the student could not say the letter 'z'.

7. "Verify and reinforce": The practitioner parent confirmed the high-level communication initiative from the student by saying 'Yes, cloth' (bez) when the student's saying 'be' syllable. Then she gave him the dish cloth, applauded and reinforced him by saying 'well done'.

8. "Go to next try": The practitioner parent allowed him to continue playing with the dish cloth for a while, which he gained through his communication attempt, and then removed the dish cloth. Later, he was expected to make a new communication attempt. All phases of incidental teaching trials were repeated in each communication attempt. As he progressed, the waiting times in the 3rd and 6th phases gradually increased and has gradually faded the clues. It was achieved by dimmed the clues, being a model and not using the verbal cue. The communication behaviors expected from him have been gradually increased by taking into account the language and communication performance and student excessively. (Tekin İftar, 2013)

After studying with the word 'bez' (cloth), continued to study with other words selected using the phases of incidental teaching method. During breakfast, he pronounced the word 'su' (water) as 'su' (water) and the word 'ekmek' (bread) as 'eme' after the practitioner parent presented the verbal and modeling clue together. He was given water and bread to reinforce his communication initiative. In teaching sessions held in the living room, he expressed the word 'araba' (car) as 'aaba' as the practitioner parent presented the verbal and modeling hint together and reinforcement was made by him to play with the car for a while. He expressed the word 'kek' (cake) as 'eg' after the practitioner parent presented the verbal and modeling clue together and he was reinforced by giving a piece of cake. It was observed that he correctly uttered the syllables 'mee', 'möö' (mo), 'aii' when the practitioner parent presented the verbal and modeling clue together in the song Ali Baba's Farm. In order to reinforce, this communication initiative was allowed him to play with animal models while listening to Ali Baba's Farm song.

With the directing from distance of the family in the second practice session, the words studied with him in the first practice session were studied again for 1 lesson hour. In the second practice session, 6 words were determined to study with him. These words are 'aç' (open), 'kaşık' (spoon), 'kola' (coke), 'top' (ball), 'at' (throw), 'tut' (hold). For the teaching of words, the student was studied at the dining

table in the living room. During the meal, he was given a can of coke to say ‘aç’ (open). He was able to express the word ‘aç’ (open) as ‘aç’, with the practitioner parent presenting the verbal and modeling hint together. He was allowed to drink some coke to reinforce this communication initiative. During the meal, he expressed the word ‘kaşık’ (spoon) as ‘aşı’ and the word ‘kola’ (coke) as ‘ola’ as the practitioner parent presented the verbal and modeling clue together. To reinforce his communication initiative, he was allowed to eat some food with the spoon and drink more coke. After the meal, a game of throwing and holding a ball was played with him. The incidental teaching method was used during the game and he expressed the word ‘top’ (ball) as ‘op’, the word ‘at’ (throw) as ‘a’, and the word ‘tut’ (hold) as ‘u’ letter. In order to reinforce this communication initiative of him, the game of playing ball with him continued for a while.

In the third practice session, with the teacher directed the family from a distance, the words studied with him in the first and second practice sessions were studied again for a lesson and then the third implementation session started. In the third practice session, 6 words were determined to study with him. These words are ‘yemek’ (meal), ‘ver’ (give), hav hav, ‘miyaw’ (meow), ‘oyna’ (play), ‘kapat’ (close). In this session, he and his sister sat down at the dinner table and pasta was prepared for dinner. No food or drink was placed in front of him but the pasta and coke were placed at the table where he could see but not reach. In this way, the student was expected to use the words ‘yemek’ (meal) and ‘ver’ (give). The student expressed the word ‘ver’ (give) as ‘ey’ and the word ‘yemek’ (meal) as ‘eme’ after the practitioner parent presented the verbal and modeling clue together. To reinforce his communication initiative, he was allowed to eat some pasta and drink some coke. After the meal was finished, he tried to imitate the sound of the dog and cat in his favorite song ‘Ali Baba’s Farm’. He was able to express the ‘hav hav’ sound as ‘ha ha’ and ‘miyav’ (meow) sound as ‘miya’ after the practitioner parent presented the verbal and modeling clue together. In order to reinforce this communication initiative, he was allowed to play with animal models while listening to Ali Baba’s Farm song. Then, the game which is one of his favorite games was played with him and the game was stopped when he was most excited and was expected to say ‘oyna’ (play). He expressed the word ‘oyna’ (play) as ‘oyna’ after the practitioner parent presented the verbal and modeling clue together. This game was continued for a while to reinforce this communication initiative of him. A rhythm instrument made with a jar bottle was used for him to use the word ‘kapat’ (close). He was allowed to play with this material for a while and the material was taken from the student when he was most excited and the jar lid was opened. He took the jar and tried to close the lid but he failed. He expressed the word ‘kapat’ (close) as ‘apa’ after the practitioner parent presented the verbal and modeling hint together. The practitioner parent closed the jar and he was allowed to keep rhythm for a while to reinforce this communication initiative. In the B1 stage, the student should have 6 out of 20 words (‘su’ (water), ‘aç’ (open), ‘oyna’ (play), mee, ‘möö’ (mo), aii) exactly and correctly; 4 of them (in the form of ‘top’ (ball) as ‘op’, ‘araba’ (car) as ‘aaba’, ‘miyav’ (meow) as ‘miya’, ‘hav hav’ as ‘ha ha’) are close to the right 10 of them (‘bez’ (cloth) as ‘be’, ‘kek’ (cake) as ‘eg’, ‘kola’ (coke) as ‘ola’, ‘yemek’ (meal) as ‘eme’, ‘kaşık’ (spoon) as ‘aşı’, ‘ekmek’

(bread) as 'eme', 'at' (throw) as 'a', 'tut' (hold) as 'u', 'ver' (give) as 'ey', 'kapat' (close) as 'apa'), on the other hand, it has been seen to be partially pronounced.

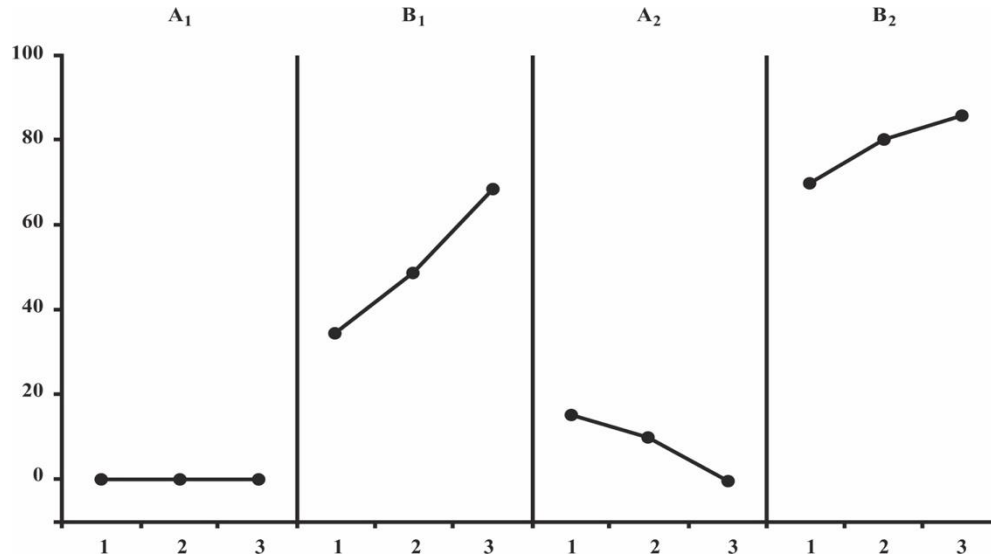
The second implementation level phase (B2) was started on 28.12.2020 and ended on 15.01.2021. In this phase as well as in the first implementation level phases 20 words were studied in 3 sessions for 3 weeks in a total of 12 lesson hours, as a repetition of the sessions in the first practice level phase. In this phase, unlike the first implementation level phase, the verbal and modeling cues used by the practitioner parent were withdrawn. Clues were made obscured by being a model and not using verbal cues. In the teaching sessions in the second implementation level phase, he exhibited a performance above the performance in the first application level phase. At the phase B2, It has been observed that the student should give 12 out of 20 words ('su' (water), 'top' (ball), 'araba' (car), 'aç' (open), 'at' (throw), 'tut' (hold), 'oyna' (play), 'mee', 'möö' (mo), 'miyav' (meow), hav hav, aii) exactly and correctly; 2 of them ('kola' (coke) as 'gola', 'yemek' (meal) as 'yeme') are close to the right, 6 of them ('bez' (cloth) as 'be', 'kek' (cake) as 'eg', 'kaşık' (spoon) as 'aşı', 'ekmek' (bread) as 'eme', 'yemek' (meal) as 'eme', 'kapat' (close) as 'apat') are partially pronounced.

2.4.3. Data Collection

Observation and family interviews were made in collecting the data. Before preparing the Individualized Education Plan for the student, the 'communication skills' part of the rough assessment form was filled. The communication skills performance level of him was observed by the practitioner teacher. When the observation process was completed, a meeting was held with the family and information about the communication behavior of the participant at home was collected. As a result of both the rough evaluation form results and the family interview, it was concluded that he expressed his wishes using only gestures and facial expressions. The baseline and implementation level data of him were marked on the relevant place in the controlled event record form by the practitioner on the days of live lessons. During these procedures, the correct and incorrect responses of him were recorded in the student reactions column in the data collection form by placing '+' sign for correct responses and '-' sign for false responses.

3. FINDINGS

In this section, the findings regarding the initial level data (A1, A2) and the application process data (B1, B2) collected for the ability to submit requests are included. Information about these findings are shown in Graphic 1.



Graphic 1: ABAB Model Graphics

As can be seen in Graph 1, initial data (A1) was collected for 3 consecutive phases. In each phase, he was expected to pronounce different words. He expressed his wishes with gestures and facial expression, only made meaningless sounds and did not utter any syllables or words. Therefore, the baseline data was entered as '0' in the chart. When stable data were obtained in the initial data collection sessions (A1), the first implementation level phase (B1) was passed.

As can be seen in the graphic 1, implementation level data (B1) was collected for 3 consecutive phases. Different words were studied with him in each phases. In the first implementation level, 20 words determined for him, the way he uses the words and the scores given by the practitioner teacher to the way he uses words are shown in Table 1.

Table 1. Words Selected for the Student and the Way the Student Expressed the Words in Stage B₁

Words Selected for the Student (in Turkish)	How the Student Expressed Words (in Turkish)	Points that the Practitioner Teacher gave to the Student's Use of Words
Su (water)	Su	5
Top (ball)	Op	4
Araba (car)	Aaba	4
Bez (dish cloth)	Be	3
Kek (cake)	Eg	3
Kola (coke)	Ola	3
Yemek (meal)	Eme	3
Kaşık (spoon)	Aş1	1
Ekmek (bread)	Eme	3

At (throw)	A	1
Tut (hold)	U	1
Ver (give)	Ey	2
Aç (open)	Aç	5
Kapat (close)	Apa	3
Oyna (play)	Oyna	5
Mee (Kuzu)-(lamp)	Mee (Kuzu)-(lamp)	5
Möö (İnek)-(mo-cow)	Möö (İnek)-(mo-cow)	5
Miyav (Kedi)-(meow-cat)	Miya (Kedi)-(meow-cat)	4
Hav hav(Köpek)- (dog)	Ha ha (Köpek)-(dog)	4
Aii (Eşek)-(ass)	Aii (Eşek)-(ass)	5

According to Table 1, 6 out of 20 words ('su' (water), 'aç' (open), 'oyna' (play), 'mee', 'möö' (mo), 'aii') were given by him exactly and correctly; 4 of them (in the form of 'top' (ball) as 'op', 'araba' (car) as 'aaba', 'miyav' (meow) as 'miya', 'hav hav' as 'ha ha') are close to the right, 10 of them ('bez' (cloth) as 'be', 'kek' (cake) as 'eg', 'kola' (coke) as 'ola', 'yemek' (meal) as 'eme', 'kaşık' (spoon) as 'aşı', 'ekmek' (bread) as 'eme', 'at' (throw) as 'a', 'tut' (hold) as 'u', 'ver' (give) as 'ey', 'kapat' (close) as 'apa'), on the other hand, it was seen to be partially pronounced. The total score of the practitioner teacher on the way he used words in phase B1 was 69. This shows that 69% of he gained the skill of expressing requests over 20 words determined. The most striking part in points that 1 point was given for him to express the word 'kaşık' (spoon) as 'aşı', the word 'at' (throw) as 'a' and the word 'tut' (hold) as 'u'. The practitioner teacher gave 1 point to this part because the word 'aşı' does not enough for word 'kaşık' (spoon), the letter 'a' the word 'at' (throw) and the letter 'u' with the word 'tut' (hold). Likewise, practitioner teacher gave 2 points to this word because the syllable 'ey' does not enough for syllable 'ver' (give). According to Table 1, it was determined that the letters that he could not pronounce are 't', 'r', 'v', 'k', 'z'.

In the second baseline collection phase (A2) it was observed that he displayed a similar performance to the initial level collection phase. He imitated 'mee', 'möö', 'aii' animal sound in the first lesson of a week. Since he pronounced these 3 animal sounds correctly, the initial level data were given 15 points out of 5 points. Since he correctly pronounced 'mee' and 'möö' animal sounds in the second lesson, the second beginner level data was given 10 points out of 5 points. This performance of him can be explained by the easy pronouncing of animal sounds and the fact that studying these sounds accompanied by children's songs increases the memorability. In the third lesson, he could not express

any syllables or words and the third entry level data was determined as '0'. The results obtained in the second baseline collection phase were entered in the chart as '15, 10, 0'.

In the teaching sessions in the second practice level (B2) it was observed that he performed above his performance in the first implementation level phase. In this last stage, 20 words determined for him, the way he used the words and the scores given by the practitioner teacher to the way he used the words are shown in Table 2 with the highest 5 points.

Table 2. Words Selected for the Student and the Way the Student Expressed the Words in Stage B₂

Words Selected for the Student (in Turkish)	How the Student Expressed Words (in Turkish)	Points that the Practitioner Teacher gave to the Student's Use of Words
Su (water)	Su	5
Top (ball)	Op	5
Araba (car)	Aaba	5
Bez (dish cloth)	Be	3
Kek (cake)	Eg	3
Kola (coke)	Ola	4
Yemek (meal)	Eme	4
Kaşık (spoon)	Aş1	1
Ekmek (bread)	Eme	3
At (throw)	A	5
Tut (hold)	U	5
Ver (give)	Ey	3
Aç (open)	Aç	5
Kapat (close)	Apa	4
Oyna (play)	Oyna	5
Mee (Kuzu)-(lamp)	Mee (Kuzu)-(lamp)	5
Möö (İnek)-(mo-cow)	Möö (İnek)-(mo-cow)	5
Miyav (Kedi)-(meow-cat)	Miya (Kedi)-(meow-cat)	5
Hav hav(Köpek)- (dog)	Ha ha (Köpek)-(dog)	5
Aii (Eşek)-(ass)	Aii (Eşek)-(ass)	5

According to the Table 2, it has been observed that 12 out of 20 words determined by him exactly and correctly ('su'(water), 'top' (ball), 'araba' (car), 'aç' (open), 'at' (throw), 'tut' (hold), 'oyna' (play), 'mee', 'möö' (mo), 'miyav' (meow), hav hav, aii); 2 of them ('kola' (coke) as 'gola', 'yemek' (meal) as 'yeme') is close to the right. He partially pronounced 6 of them ('bez' (cloth) as 'be', 'kek' (cake) as 'eg', 'kaşık' (spoon) as 'aşı', 'ekmek' (bread) as 'eme', 'yemek' (meal) as 'yeme', 'kapat' (close) as 'kapa'). The total number of points that the practioner teacher gave to his use of words was 85. This shows that he gained the skill of expressing requests over 20 words determined at the rate of 85%. The most striking part in the scores that given 1 point for expressing the word 'kaşık' (spoon) as 'aşı'. The practioner teacher gave 1 point to this part because the word 'aşı' does not evoke the word 'kaşık' (spoon). According to Table 2, it has been determined that the letters that he can not pronounce are 'k', 'z' and 'v' at the beginning of the word. The fact that the studied words can not be taught to him at a rate of 100% can be explained by the fact that the study is carried out in a period of 2 months.

4. DISCUSSION AND CONCLUSION

In this study, the effect of incidental teaching method on teaching students with moderate mental retardations the ability to express request through distance education was investigated. In this context, a 10 years old male student with moderate mental retardation and bilateral mild hearing loss was studied. The aim of the study is to contribute to the ability to express a request which is one of the expressive language skills, by teaching 20 determined words.

Individuals with moderate mental retardation may experience delay in language development and speech. Individuals with moderate mental retardation, acquire language generally slower and more delayed than other peers, especially in terms of structural elements such as syntax, morphology and phonetics. When the language and speech skills of individuals with moderate mental retardations are supported by applied behavioral analysis principles and methods, these individuals can improve themselves in line with their competencies. The natural teaching method to be used in this study and the incidental teaching method, which is a subtitle of the natural teaching method, are methods based on the principles of applied behavior analysis. Natural teaching method is mostly used in the natural teaching of expressive and receptive language communication skills and social skills in daily life of individuals. Incidental teaching is a natural teaching method that starts with the communication initiative of the student used for the acquisition or development of communication skills and requires structuring the environment in line with the student's interests and includes many communication experiments.

According to the findings of the study, it can be concluded that the incidental teaching method contributes to the development of communication skills in individuals with moderate mental retardations. There is not enough research in the literature to improve communication skills of individuals with moderate mental retardations. Studies investigating communication skills have generally been conducted with individuals with autism spectrum disorders. İnce (2019) examined the effects of incidental teaching on the acquisition, generalization and permanence of the ability to seek

verbal help in students with autism spectrum disorder, in her master's thesis. Research findings show that the participants acquired the ability to seek verbal help through incidental teaching shows that they generalize to different materials, people and environments. Parents' views are that the ability to seek verbal help and incidental teaching have an impact on their students. In another study by Kizir (2020) worked with families with students with Autism Spectrum Disorder. She scanned the literature on the researches covering the years 2000-2018, including distance family education practices that will help families gain communication skills to their students, and presented nine studies as a 'summative review'.

The results showed that remote programs have a positive effect on targeted skills. According to the findings of the studies, participating parents have gained the ability to apply the targeted teaching method. Participating students, demonstrated the communication skills that were highly targeted. In another study by Mısır Horasan & Binyamin Birkan (2015), investigated the effectiveness of the incidental teaching method in teaching students with autism spectrum disorder the ability to ask for lost objects using words during academic, art and leisure activities. As a result of the study, it was revealed that the incidental teaching method was effective in teaching the ability of students with autism spectrum disorder to ask for their lost objects by using words and maintaining the taught skills. In the study called 'Teaching Language to an Autistic Student' conducted by Güzel Özmen (2005), it was aimed to improve the preverbal communication behavior, receptive and expressive language skills of a 9 years old male student who has limited receptive language skills and does not have expressive language skills. The study lasted two months. According to the results of the research, there was a diversity in terms of language usage functions of the student and the student started to use sounds and words in accordance with communication purposes. Cebeci (2015) investigated the effectiveness of using incidental teaching through assistant staff in teaching functional communication skills to preschool students with autism spectrum disorder in her doctoral thesis. In addition, this study also includes whether the students generalize their functional communication skills to different environments, people and materials, whether the taught skills are maintained after the education is completed, and the opinions and suggestions of teachers and families regarding the study.

Research findings has been shown that functional communication skills are taught to pre-school students with autism spectrum disorder by using incidental teaching through assistant staff, and students's skills to perform these functional skills are preserved after the end of the implementation and can be generalized to different environments, people and materials. The results obtained from the interviews with teachers and mothers in the study show that the opinions of teachers and mothers about the incidental teaching process are positive. The findings and results obtained from the studies mentioned above are consistent with the findings and results obtained from this study.

In the research, it was observed that the student displayed the target skill at a rate of 85% among the 20 words determined. According to this result, it is concluded that the use of incidental teaching method with distance family education contributes to the development of communication skills of individuals with moderate mental retardations, in line with the principles of applied behavior analysis

in teaching the ability to demanding requests. Unlike most researches and theses in the literature, it can be said that working with a student with moderate mental retardation both contributes to the field and fills a gap in the field

Also according to this research, it can be concluded that the teaching processes carried out with distance family education contribute to both the family and the relevant student. Asked to the practitioner parent at the end of the research: "Did you find this study useful for your sibling?", the answer given to the question 'Yes, it was a very useful and enjoyable process for both me, my family and my brother' also proves the effectiveness of the study.

5. SUGGESTIONS

5.1. Suggestions for Practitioners

- o The motivation of the participants in the incidental teaching is high because of the educational environment is arranged in line with the interests and competencies of the student. Thanks to this, the method can be easily used by educators and families at home, in special education classes, in inclusive implementations and in any area needed
- o Higher level communication skills using the incidental teaching method can also be studied by families and practitioners.

5.2. Suggestions for Researchers

- o The research was limited to a student in the special education application school in Hakkari province. Similar studies can be conducted with individuals with special needs in different cities.
- o The research was limited to the specified 20 words. The research can be repeated using different words and sentences and so research findings can be compared.
- o Scientific studies can be conducted to use the incidental teaching method to develop different skills in individuals with different types of disability.
- o In the next studies, an interdisciplinary study can be conducted in which special education teachers, classroom teachers and speech language therapists work as practitioners in order to gain communication skills with the incidental teaching method.
- o In service training programs in which the incidental teaching method is explained to parents can be prepared and scientific studies can be conducted on the results of this training.

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