The Effectiveness of Self-Management Strategies in Effective Use of Leisure Time to Individuals with Intellectual Disabilities

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Abstract: The purpose of this research is to investigate the effectiveness of self management strategies in effective use of leisure time to individuals with intellectual disabilities. The additional aim of the study is also to determine the effectiveness of the self management strategies in use of self management strategies who individuals with intellectual disability. In addition, sustained attention, persistence, generalization and social comparison were also examined in the study. The social validity of the study was examined through subjective assessment, social comparison and permanency. In the research, instead of single-subject research methods was used inter-subject multiple interrogation model. The data were analyzed by graphical analysis method. Three individuals at the age of 15 years old with mild intellectual disability participated in the study. In addition, 15 individuals with normal development participated in the research during the collection of social comparison data. The dependent variables of the research are the skills of effective use of leisure time, self management strategies and sustained attention. The independent variable of the research is self management strategies. The findings of effectiveness show that self management strategies is effective in the acquiring the effective use of leisure time and use of self management strategies. In addition, participants maintained the 1, 3 and 4 weeks after target behaviors acquired and they have generalised the target behaviors to different people, places and tools. Findings of social validity based on subjective assessment show that the parents of the participants express positive opinions about the study. The results of the the social comparison findings showed that participants perform at a lower level of performance compared to their peers before the research and at the end of the research they performed at a similar level of performance. In addition, participants maintenanced their attentions while they concerned leisure time activity that choose them.

Keyword: Self-management strategy

Introduction

The individuals with intellectual disability (ID) also have leisure time in daily life just as the individuals showing normal development. Leisure time is as important for the individuals with disability as it is for all the individuals (Samara and Loannidi, 2019). Leisure time is the period in which after fulfilling the tasks and responsibilities, the individuals deal with the activities chosen at their own will, have fun, learn and feel themselves happy while occupying with these activities (Argan, 2013; Cohen-Gewerc and Stebbins, 2007; Çay, 2017). It is significant how this period is used, with whom it is used and how it is spent. The use of leisure time contains assessing the time that is spent for the activities the individual wants to deal with within this period (Hellsten, 2012). According to Arslan (2011), individuals cannot make an effective and proper use of this period they have.

Effective use of leisure time could be defined as the use of this period by the individual after fulfilling the tasks and responsibilities in a productive way with the activities and games they want. The effective and proper use of the leisure time may have positive contributions to both the individual with disability and his/her surroundings (Süzer, 2008). The related literature (i.e., Gürbüz and Henderson, 2014; Kurar and Baltacı, 2014) also supports this idea. The effective and proper use of leisure time enables the individuals to purify from the stress of the daily life and become psychologically well (Lewis, 2003),

learn new information and skills while having fun and be able to express themselves in a comfortable way (Süzer, 2008) and develop social skills (Öpözlü, 2006). In addition, the individuals with ID learning how to effectively and properly use leisure time may show fewer problematic behaviors. It may enable the individuals with ID to be both physically and psychologically well. Therefore, the selection of the activities and skills enabling the individuals to be able to spend their leisure time in an effective and productive way is vital.

Leisure time activities is defined in the literature as the activities chosen by the individuals to have fun and spend good time, with no financial return and conducted within the direction of their own skills (Leitner and Leitner, 2012). In the light of these definitions, leisure time activities are classified in different ways. It is seen that Zijstra and Vlaskamp (2005) have sorted the leisure time activities as physical, artistic, religious, visual, auditory, eating and drinking activities, games and visit activities; Cohen-Gewerc and Stebbins (2007) have sorted the leisure time activities under three categories as (a) Serious, (b) Temporary and (c) Project based and Obinna at. al., (2009) have sorted the leisure time activities as (a) Indoor activities, (b) Social activities, (c) Cultural (d) Sportive and (e) Outdoor activities. In addition to these groupings made, leisure time activities could be examined under two categories as pleasure based and product based. The pleasure-based activities may contain the active activities such as playing basketball and football, skiing, going to mosque, going to cinema, meeting friends and chatting; and also, the passive activities such as watching TV, listening to radio and reading a book. Product based activities may contain the eating and drinking activities such as making a cake, cookie or meal, cognitive activities such as writing a poem, story and novel and artistic activities such as painting, coloring, composing a song, singing a song and the activities requiring hand skills. The individuals with ID could generally be said to use their leisure time by watching TV, playing with toys and dealing with the tools such as tablet or phones (Çöl, 2015). Leisure time activities could be taught to the individuals with ID in a systematic way for them to spend their leisure time in an effective and productive way. Achieving success at the stage of acquisition is related to catching the attention of the individual.

Attention is defined as the state of focusing on the activity or work conducted within the period in which an activity or work is dealt with (Avşar, 2020). Attention is considered in four categories as the selective attention, sustained attention, divided attention and focused attention. The definition of the sustained attention examined in the study could be stated as the individual to direct his/her attention to a certain activity or work during any activity or work (Soysal et.al., 2008). The most important property of attention is that its capacity is limited, and this shows differences in every individual. The best example for this is seen in the individuals with ID. The individuals with ID may have some limitations in gathering their attention. The fact that they have attention problems forms a limitation for them to learn (Ministry of National Education [MEB], 2008). Therefore, it is important for the individuals taking place in this group to direct and sustain their attention to the taught target skill to facilitate their learning and reach success. In this way, the individuals with ID could be less dependent on others and control their own lives more when they become successful in life and obtain the skills for sustaining their attention. The significance of the self-management strategies is emphasized also in the literature for the individuals with ID to be less dependent on others and be able to control their lives more (Cooper et.al., 2007; Hoff and SawkaMiller, 2010).

Self-management is defined as the personal implementation of behavior changing techniques (Cooper et.al., 2007). The mentioned strategy consists of antecedent cue regulation, self-instruction, self-monitoring, self-assessment and self-reinforcement. Self-management strategies are efficient for the individuals with ID to learn target skills, generalize the learnt skills to real environments, use them easily in educational and

teaching environments, shorten the period spared for teaching and apply these strategies easily (Yücesoy Özkan, 2009; Yücesoy Özkan and Sönmez, 2011).

It is possible to encounter with studies (Avcıoğlu, 2012b; Browder and Miranovic, 2000; Brooks et.al., 2003; Çelik, 2010; Embregts, 2000; Eldeniz Çetin and Çay, 2019; Firman et.al., 2002; Gevşek, 2016; Yücesoy Özkan et.al., 2014) in which the self-management strategies are taught to the individuals with ID and the efficiency of the self-management strategies are examined in teaching them the target skills. When the conducted studies are examined, it is seen that self-management strategies are used in teaching social skills, decreasing the inconvenient behaviors, increasing the behavior of dealing with the activity and gaining daily life skills, but no studies have been seen in which the efficiency of self-management strategies are examined in enabling the individuals with ID to gain effective use of leisure time. Moreover, it is considered that more studies should be conducted in which self-management strategies are used more for the individuals with ID. Furthermore, it is seen that there are studies in the literature (Davies et.al., 2002; DiPipi-Hoy et.al., 2009; Green et.al., 2011; Smeets, Van Lieshout et.al., 1986; Sowers et.al., 1980; Janeslatt et.al., 2010; Kader and Eissa, 2015) on gaining leisure time using skills, therefore, management skills for the individuals with disability. When the conducted studies are examined, it is observed that skills related to the proper use and assessment of time and therefore, management of time are gained to the individuals with disability, but it has also been seen that no studies have been conducted in which the efficiency of the self-management strategies has been examined in the effective use of leisure time by the individuals with ID.

The efficient and proper use of leisure time by the individuals with ID, sustaining their attention to a specific activity during the dealt activity in their leisure time and learning the behaviors required by the self-management strategies to sustain their lives in a less dependent way to others are seen vital. For this reason, this study has been designed both to meet the needs of the individuals with ID regarding the development of their skills to be able to effectively use their leisure time and determine at what level self-management strategies are used and whether there has been any change in the determined target behavior.

Aim of Study

In this study, it has been aimed to examine the efficiency of the self-management strategies consisting of giving self-prepulse, giving self-direction, self-monitoring and self-assessment and the efficiency of the self-management strategies on the self-management strategy using skills of the individuals with ID in gaining skills to the individuals with ID for the effective usage of leisure time and also determine the enhancement in the sustained attention levels of the participants. Within the direction of this general aim, the following questions have been tried to be answered:

1. Are the self-management strategies consisting of antecedent cue regulation, self-direction, self-monitoring and self-assessment effective in gaining efficient use of leisure time to the individuals with ID?
2. Are the self-management strategies efficient for the individuals with ID to show self-management behaviors?
3. Do the individuals with ID sustain their attention while dealing with the leisure time activities they have chosen and have interest?
4. Do the individuals with ID sustain dealing with the leisure time activity during the period they have determined?
5. Does the permanence of the effective leisure time using skills taught to the individuals with ID using the self-management strategies continue after 1, 3 and 4 weeks?

6. Could the individuals with ID generalize the effective leisure time using skills taught to them using the self-management strategies with different people, house environment and tools?
7. What are the views and suggestions of the parents of the individuals with ID participating in the study on the taught skill of the effective use of leisure time and the self-management strategies used in teaching this skill? (Subjective assessment)
8. Could the individuals with ID learning the target skill show the target skill in similar level when compared to their peers showing normal development (reference group)? (Social comparison)
9. Do the performances of the participants related to the target skill after the completion of the study show similarities with the performances of the individuals showing normal development and taking place in the reference group that has not been taught?

Method

Participants

The study has been conducted in a vocational school of special education bound to the Directorate of National Education in the city of Sakarya. To form the participants of the conducted study, three principal participants diagnosed with ID and one substitute participant have been determined by taking the participant loss into consideration. In addition, a participant has also been determined to be able to conduct pilot research in the study. The names owned by the participants have not been used during the study for not having any ethical problem and code names representing their real names have been given to participants. Preliminary condition skills have been determined by the researchers to determine the participants of the study. These determined preliminary condition skills are a) directing attention to the activity to be conducted for at least 5 minutes and sitting in their desk, b) conforming to the directions such as "read the text" and "evaluate/use your leisure time" consisting of at least two words, c) imitating the motor skills with at least two stages, d) reading and writing the single digit numbers from 1 to 9 and the double digit numbers, e) reading and writing the text formed by the sentences consisting of at least two words given to themselves, f) reading the minutes and hours related to the concept of time with numbers, g) having no training on the self-management strategies before the application. The demographic data belonging to the students participating in the study are given in Table 1.

Table 1.
Demographic properties of the participants.

Code names given to the participants	Age	Gender	Diagnosis	EUSMS
Emre	15	Male	ID	No
Eda	15	Female	ID	No
Ali	15	Male	ID	No

EUSMS: Experience of using self-management strategies, ID: Intellectual disability

Emre being a participant of the study is a student at the age of 15 and with ID diagnosis. He continues the private special education institution as well as the special education he gets. He is literate and could make the four mode operations. He could fulfill the directions given to him. He could verbally express himself and give answers to the questions asked to him. He could tell the time and the hourly concepts and show them when wanted. Emre could imitate the motor skills. The participant has no experience in using the self-management strategies beforehand. The participant has no problem in attendance at school.

Eda is a student at the age of 15 and diagnosed with ID. She continues the private special education institution as well as the special education she gets. She is literate and could

make the four mode operations. She could fulfill the submitted directions. She could verbally express herself and answer the questions related to the given text. She could tell the time and the hourly concepts and show them when wanted. Eda could imitate the motor skills. The participant has no experience in using the self-management strategies beforehand. The participant has no problem in attendance at school.

Ali is a student at the age of 15 and diagnosed with ID. He continues the private special education institution as well as the special education he gets. He is literate and could make the four mode operations. He could fulfill the directions given to him. He reads the given text could answer the questions asked related to the text. He could tell the time and the hourly concepts and show them when wanted. Ali could imitate the motor skills. The participant has no experience in using the self-management strategies beforehand. The participant has no problem in attendance at school.

Setting and Timing

All sessions except for the generalization sessions of the study have been conducted in the classrooms of the participants where they study. There are four desks, three chairs, one table, three boards where texts and visuals are shown and one hanger. The generalization sessions of the study have been conducted at the houses of the participants.

Equipment

Within the scope of the study, leisure time activity picture book, pencil, recording device, student behavior record chart for efficient leisure time use, skill analysis chart for efficient leisure time use, picture behavior list for efficient leisure time use and timer have been used in enabling the individuals with ID to gain the skills of the effective use of leisure time and self-management strategies.

Research Model

Multiple probe design with cross-participant probe trials being one of the single subject research models has been used in this study in which the efficiency of self-management strategies has been examined on gaining the efficient leisure time using skills to individuals with ID and on the skills of the participants with ID for using self-management strategies. Multiple probe design with cross-participant probe trials has been used thanks to the fact that a functional relationship could be established between the dependent variable and independent variable.

Baseline sessions data are collected with all three participants due to the requirement of the used model. After that, the collection of the baseline sessions data is continued until stable data are attained with the first participant. The sessions of probe trials that are taken from time to time are given place with the other two participants. The implementation phase is proceeded after the first participant obtains a stable performance. Sessions for attaining stable data at starting level are arranged with the second participant at the moment when the first obtained and determined criterion is met. Probe trials are continued to be taken from time to time with the third participant. When the first criterion is met in the teaching session of the second participant, data to attain stable data are collected from the third participant at baseline level. When stable data are collected at the baseline phase, the implementation phase is proceeded and instruction sessions are given place (Tekin-İftar and Kırcaali İftar, 2006). In the conducted study, the experimental control has been provided with the fact that the performance shown by the participants at the baseline sessions has changed in the

participants to whom teaching sessions have been arranged and their performance has been in similar level with the performance of the participants to whom intruction sessions have not been arranged.

Dependent and Independent Variables

One of the dependent variables of the conducted study is the level of the individuals with ID for showing the skill of being able to efficiently use their leisure time and the other dependent variable is the levels of the individuals with ID for using the self-management strategies. The independent variable is the self-management strategies used in enabling the individuals with ID to gain efficient use of leisure time.

Preparations Conducted before the İmplementation

Pilot implementation sessions have been conducted to be able to terminate the negative situations possible to occur during the experimental process of the study and to enable the experiment process to proceed in a healthy way. Afterwards, preparations such as teaching the participants how to use the timer, determining the leisure time activities to be benefited during the efficient use of leisure time and informing the parents in the issue of using the leisure time effectively and the self-management strategies have been made.

Data Collection

The efficiency data have been collected with the skill analysis record form prepared by the researcher in accordance with the skills taught in the sessions conducted in the study. Reliability data among observers have been collected to determine whether the participants have carried out the target skills or not and implementation reliability data have been collected to determine whether the implementer has applied the teaching sessions as planned or not. Besides, three types of social validity data have been collected regarding the subjective assessment, social comparison and the sustainability/permanence of the impacts of the study in this research.

The views of the parents of the participants have been determined on the used method and the taught target skills via the subjective assessment. Via social comparison, it has been compared whether both the performances of the research participants and the performances shown by the individuals showing normal development that are out of the scope of the study and determined to show the target skills because of the interviews conducted with their parents show any similarity or not.

Implementation Stage

The other sessions of the conducted study except for the generalization sessions have been conducted in the classrooms where the participants study. The researcher has ensured a teaching arrangement in one-to-one format and worked with the participant in a one-to-one format. Sessions have been arranged in a way that a trial will be conducted in each workday of the week. Intruction sessions have been continued until five successive data have been attained at a ratio of 80% and above. A time interval of five seconds has been determined for the participant to react. The reactions a) true, b) false and c) no reaction have been observed in all sessions of the study and it has been aimed to observe the participant reactions such as sustaining the attention and not sustaining the attention in the daily probe sessions of the study.

Baseline Sessions

Baseline sessions have been carried out to determine whether the individuals with ID fulfill the skills of effectively using the leisure time by using the self-management strategies and fulfill the behaviors required by the self-management strategies. Probe trials have been conducted at the baseline sessions to determine the performances regarding the target skills. Skill analysis record has been used to collect the data on the skills of the participants for effectively using the leisure time and fulfilling the behaviors required by the self-management strategies. "Use/assess your leisure time" skill direction has been determined as the target stimulator. Emre being the first participant has been required to react within five seconds after giving the target stimulator. The true reactions he has given have been recorded in the data recording form as "+", the false ones and no reactions have been recorded as "-". If he has given the false reaction after submitting the participant skill direction, other stages have also been counted as unrealized, they have been recorded in the data recording form as "-" and the session has been finalized. Similar processes have been followed in all three participants and baseline sessions data have been collected. Afterwards, the participants have been thanked for participating in the study and verbally encouraged.

Instruction Sessions

The instruction sessions of the study have been conducted at noon between 12:10-13:00 in the classrooms where they study. Instruction sessions have been given place after obtaining five stable data at the baseline phase.

The researcher has sat side by side with the participant, wondered the reaction of the participant and encouraged his/her positive reaction by saying "Now, we will learn how to use our leisure time together. In this way, we will not waste our time and spend it in a qualified way". After that, this behavior of the participant has been verbally encouraged by saying "I see that you are ready for the work. Let's begin if you are ready, shall we?" (Very good, I see you are ready. Let's begin then). Then, what the leisure time is has been explained to the participant. The importance and benefits of the effective use of leisure time have been explained to the participant. (Emre, Eda or Ali, you will spend your leisure time full of fun and can do any activities you want within this period of time if you can use and assess your leisure time as you want now). After that, the importance and benefits of self-management process have been explained to the participant (Emre, Eda or Ali, if you can assess your leisure time yourself and use it as you want now, you will be able to assess your time all alone without being dependent on others and do any activity you want. In this way, both your family and you will be happy that you use and assess your leisure time on yourself). The tools to be used during the teaching of effective leisure time using skill using the self-management strategies have been introduced to the participant (student behavior recording chart for effective use of leisure time, behavior list for effective use of leisure time, the activity book containing the pictures of the leisure time activities, pencil to write and timer to adjust the time s/he wants). The stages of using leisure time via the self-management strategies have been explained to the participant (Now, I have nothing to do. You will say 'I will assess my leisure time' and say out loud the first article in the list of efficient leisure time using behaviors to yourself. Then, you will perform the behavior you have read out loud. After that, you will write '+' to the column taking place in the student behavior recording chart if you have performed this behavior and you will read out loud to yourself the other behavior you need to perform in the list of efficient leisure time using behaviors. You will repeat the same for all the behaviors taking place in the list of efficient leisure time using behaviors). The criterion of the efficient leisure time using behavior using self-management strategies has been explained (You will count your pluses in the student

recording chart of effective leisure time use; if you have written plus to all your behaviors, you will have used your leisure time in a qualified way and therefore, you will have assessed your time).

Target skills have been taught to the participants via verbal tips during the instruction sessions. All true behaviors of the participants have been encouraged during the teaching sessions. Instruction sessions have been continued until the participants have shown five stable performances independently above 80% in the daily probe sessions.

Daily Probe Sessions

Daily probe sessions have been given place before conducting each instruction sessions to determine whether the participants have carried out the determined target behaviors. Daily probe sessions have been conducted before each instruction session and the data obtained from these sessions have formed the data for realizing the target skills. Daily probe sessions have been arranged for the participants for whom teaching has been adjusted. Sessions have been arranged just like the baseline sessions. Daily probe sessions have been continued until five stable data have been attained at the ratio of 80% and above.

Generalization and Maintenance Sessions

Generalization sessions have been conducted for the purpose of determining whether the participants in the study could generalize the behaviors related to the target skills they learn to different environments, people and tools. Parents have carried out these sessions in their own houses together with their children as one-to one. Parents have not given any clue to their children also in the generalization sessions. Parents have rendered the skill direction "use/assess your leisure time" to their children and then, they have written it on the data recording form. The sessions of the study have been carried out using pretest-posttest model. Pretest data have been collected before the starting of the implementation by the parents and posttest data have been collected after the implementation has ended. The generalization of the skills of showing the behaviors required by the effective leisure time use and self-management strategies gained to the individuals with ID to different people has been conducted by a person other than the implementer (parent of the participant) in the houses of the individuals. The generalization of the gained target skill to different tools has been conducted using the tools different from the ones used in the instruction sessions. The effective leisure time use behaviors have been given in a written way in the instruction sessions in gaining the target skills. Pictures containing each stage of the behaviors of effective leisure time use process have been used in the generalization sessions.

Permanence sessions have been given place after the completion of the implementation for all participants. Permanence sessions have been conducted just like the baseline sessions and they have been conducted one, three and four weeks after the completion of the implementation. Data have been collected in the permanence sessions to determine the performance shown by the participant on both target skills. Performances of the participants have been verbally encouraged after the completion of the session as "Congratulations for working so hard and for your patience".

Sessions where Timer has not been used (Graying Sessions)

Graying sessions where timer has not been used have been given place until reaching the first stable data in all three participants in the study. Graying sessions have been carried out like the instruction sessions. However, the participants have not been

requested to use timer because it is aimed that the participant chooses the period s/he desires in the leisure time activity s/he desires and finalizes the activity in the period of time s/he desires. Participants have been said "You have adjusted your timer and determined yourself the leisure time activity and how long you want to spend time with that activity in the previous sessions. Now, you will determine your period yourself to deal with the leisure time activity without using your timer and will finish your activity whenever you want" while explaining the stages of the effective leisure time use via self-management strategies.

In the graying sessions, the participant has chosen the leisure time activities they want to deal with and the period himself/herself without using the timer and finalized the leisure time activity in the period of time they have desired. Graying sessions are given place here because it is aimed that the participant finalizes the leisure time activity himself/herself and s/he is not dependent on a timer.

Reliability and Validity

Two types of reliability data have been collected in the study as reliability among observers and implementation reliability. The reliability data of the study have been collected by two expert observers having studies on the topics of leisure time activities and self-management strategies. Observers have been informed about the study before the collection of the reliability data. All sessions conducted in the implementation sessions of the study have been recorded in a video camera and these records have been transferred to DVD. Afterwards, these records have been grouped as baseline, daily probe, generalization and permanence. Reliability data among observers have been collected in all the attained records. The formula "agreement / (Agreement + Disagreement) X 100" (Tekin-İftar and Kırcaali-İftar, 2004) has been used for the collection of the reliability data among observers in the study. The baseline reliability percentage average of Emre among observers on the target skill has been found as 100%, daily probe reliability percentage average among observers has been found as 97%, generalization session reliability percentage average among observers has been found as 100% and permanence session reliability percentage average among observers has been found as 100%. The baseline reliability percentage average of Eda among observers on the target skill has been found as 100%, daily probe reliability percentage average among observers has been found as 97%, generalization session reliability percentage average among observers has been found as 100% and permanence session reliability percentage average among observers has been found as 100%. The baseline reliability percentage average of Ali among observers on the target skill has been found as 100%, daily probe reliability percentage average among observers has been found as 94%, generalization session reliability percentage average among observers has been found as 95% and permanence session reliability percentage average among observers has been found as 100%.

The formula "(Agreement + Disagreement) X 100" has been benefited also in the collection of the reliability data among observers regarding the sustained attention of the participants. The average of the reliability data among observers regarding the sustained attention has been calculated as 100% for Emre, 95% for Eda and 97% for Ali.

The formula ''Observed implementer behavior / Planned implementer behavior X 100'' (Tekin-İftar and Kırcaali-İftar, 2004) has been used for the collection and analysis of the implementation reliability data in the study. The researcher behaviors taken into consideration in the calculation of implementation reliability in the teaching sessions have been determined as a) giving clue regarding the collection of participant attention, b) encouraging the behavior, c) explaining the concept of leisure time, d) giving explanation

to the participant about the importance and benefits of the effective use of leisure time, e) giving explanation to the participant about the importance and benefits of self-management process, f) introducing the tools to be used, g) giving explanation to the participant about the stages of the effective use of leisure time using the self-management strategies and ğ) giving explanation to the participant about the criterion of the behavior of the leisure time use by using self-management strategies. The implementation reliability average taken in all the teaching sessions has been calculated as 99% for Emre, 98% for Eda and 99% for Ali.

Data Analysis

The data have been analyzed with graphical analysis method in the conducted study. The true and false reactions of the participants have been recorded in the efficiency data and true reaction percentages have been calculated. The horizontal axis expresses the number of sessions arranged in the study and the vertical axis expresses the true reaction percentages shown by the participants regarding the target skill in the graph where efficiency findings have been analyzed. In this study, data have been attained via subjective assessment by taking the views of the parents of the participants on the importance of the attained findings, convenience and importance of the dependent and independent variables used. The attained data have been analyzed with content analysis method. Social comparison and permanence data have been graphed by conducting graphical analysis.

The data regarding the sustained attentions of the participants have been recorded via tablet and phones and afterwards, they have been monitored by the implementer and the attained data have been visually analyzed.
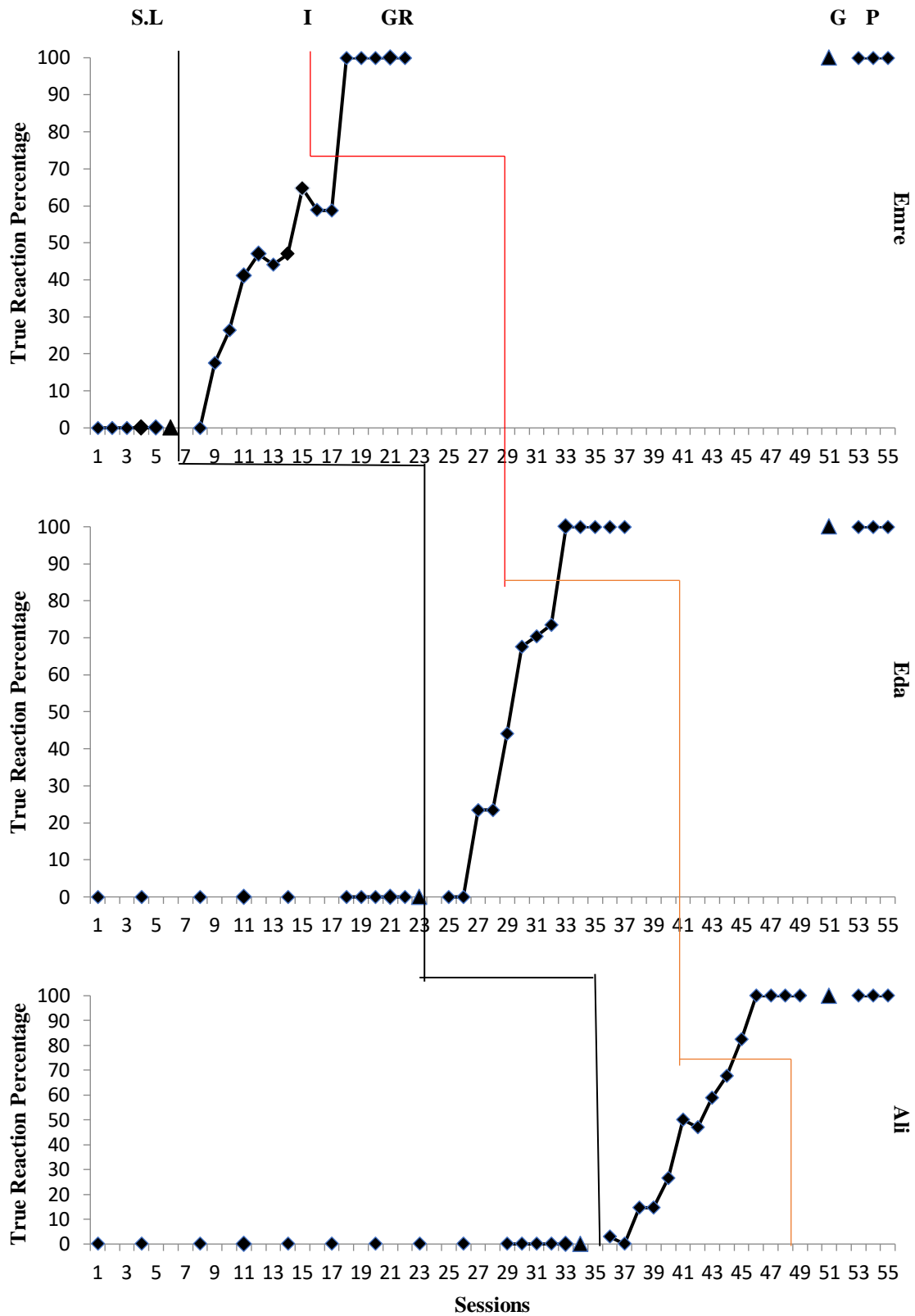
Findings and Comments

In this study, the efficiency of self-management strategies in enabling the individuals with ID to gain effective use of leisure time and the efficiency of the self-management strategies on the participants' skills of using the self-management strategies have been examined. In addition, the sustained attention levels of the individuals with ID while dealing with the leisure time activity they have chosen to have also been determined. The findings regarding the efficiency of the conducted implementation, its social validity (subjective assessment, social comparison and permanence) and the sustained attentions of the participants have been given place in this part of the study.

Findings regarding the efficiency of the self-management strategies in enabling the individuals with ID to gain efficient use of leisure time skills and self-management behaviors

The findings regarding the efficient use of leisure time by participants taking place in the implementation sessions of the study are given in Figure 1 and the findings regarding the levels of showing the behaviors required by the self-management strategies are given in Figure 2. The data points of the graphs taking place in Figure 1 and Figure 2 show similarities with each other. The reason for this is the collection of the data on efficient use of leisure time and skills of using self-management strategies in the same sessions and the use of golden opportunity technique in the collection of the data. During the data collection; when the data collection has been finalized on the efficient use of leisure time, the data collection on the use of self-management strategies has also been finalized. For this reason, they show similarities with each other.

Figure 1.
The reaction percentages shown by Emre, Eda and Ali in the sessions of starting level (SL), implementation (I), generalization (G), graying (GR) and permanence (P) regarding the efficiency of the self-management strategies in teaching the skill of the efficient use of leisure time.

Figure 2.
The reaction percentages shown by Emre, Eda and Ali in the sessions of starting level (SL), implementation (I), generalization (G), graying (GR) and permanence (P) regarding the efficiency of the self-management strategies in teaching the skill of using self-management strategies.
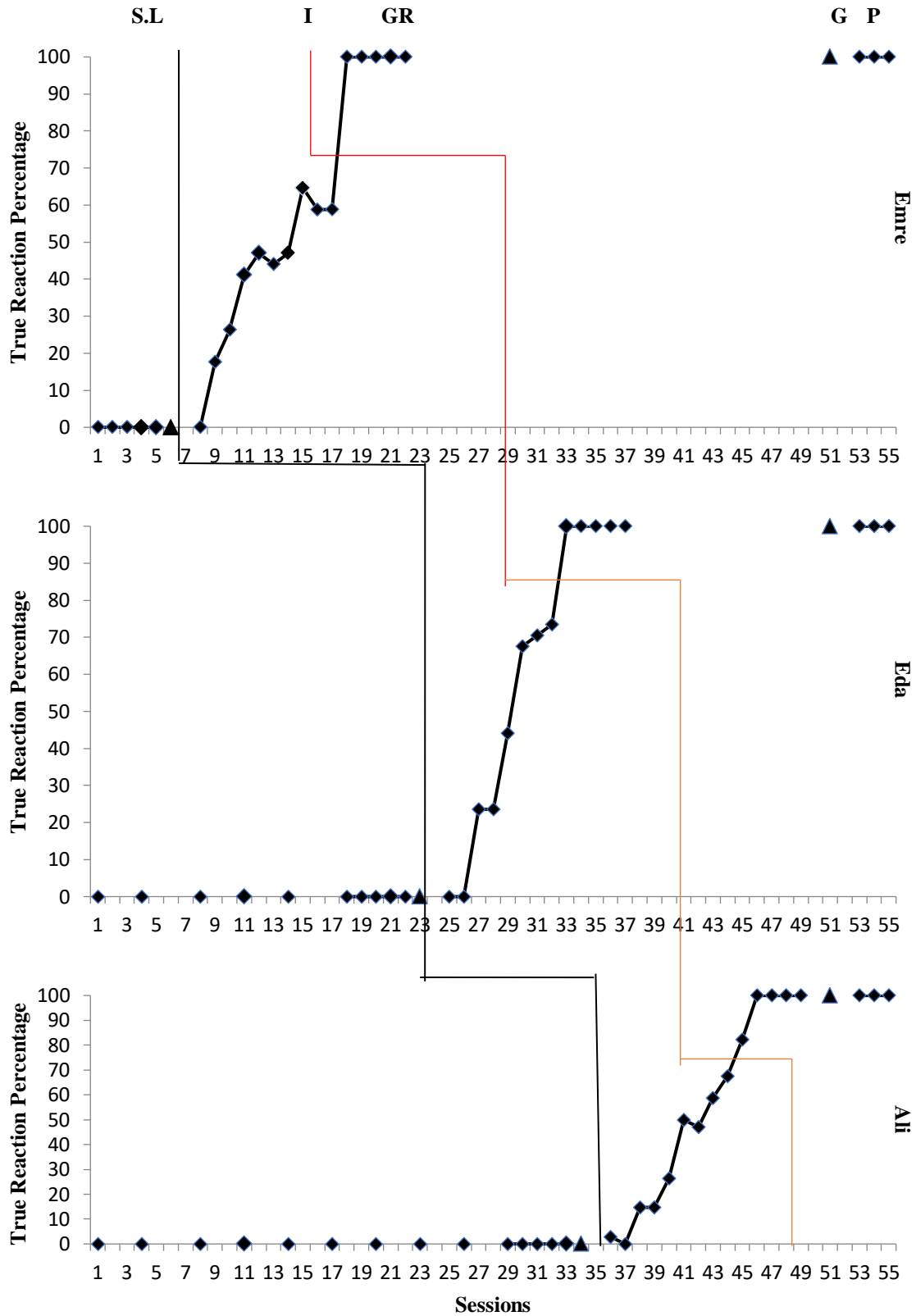
The efficiency, permanence and generalization findings of self-management strategies in enabling Emre to gain effective use of leisure time and gain the skill of using self-management strategies

While Emre has shown performance at the level of 0% at the baseline sessions on gaining the efficient use of leisure time and gaining the skill of using the self-management strategies, it has been determined that he has shown the target skills at a level that meets the criteria at the end of 15 instruction sessions, has shown performance at a ratio of 100% in the generalization sessions and permanence sessions attained one, three and four weeks after the completion of the teaching sessions and he could generalize the skills he has learnt to different environments, people and materials.

The efficiency, permanence and generalization findings of self-management strategies in enabling Eda to gain effective use of leisure time and gain the skill of using self-management strategies

While Eda has shown performance at the level of 0% at the baseline sessions on gaining the efficient use of leisure time and gaining the skill of using the self-management strategies, it has been determined that she has shown the target skills at a level that meets the criteria at the end of 13 instruction sessions, has shown performance at a ratio of 100% in the generalization sessions and permanence sessions attained one, three and four weeks after the completion of the teaching sessions and she could generalize the skills she has learnt to different environments, people and materials.

The efficiency, permanence and generalization findings of self-management strategies in enabling Ali to gain effective use of leisure time and gain the skill of using self-management strategies

While Ali has shown performance at the level of 0% at the baseline sessions on gaining the efficient use of leisure time and gaining the skill of using the self-management strategies, it has been determined that he has shown the target skills at a level that meets the criteria at the end of 14 instruction sessions, has shown performance at a ratio of 100% in the generalization sessions and permanence sessions attained one, three and four weeks after the completion of the instruction sessions and he could generalize the skills he has learnt to different environments, people and materials.

When the efficiency findings of the study in which the skills of effective use of leisure time and the skills of using self-management strategies have been taught to the individuals with ID are examined, it has been detected that self-management strategies are efficient, participants could generalize their skills to different environments, people and materials and show the skills one, three and four weeks after the completion of teaching. Besides, it is seen when the efficiency graphs are examined that making estimations has been conducted with the first participant, verification has been conducted with the second participant and repetition processes have been finally conducted with the third participant. In this way, it has been observed that a functional relation has been established between the dependent and independent variable and therefore, the experimental control of the study has been ensured.

The Analysis Findings of the Graphical Data

As a result of the calculations made in an internet-based calculator by taking into consideration the data points in the baseline and implementation phases of the study regarding the participants, Tau U values have been determined to be 100% for Emre, 100% for Eda and 85,71% for Ali. Tau U value has been calculated as 95,2% on average

in the study. According to Vannest and Ninci (2015), the conducted study could be specified to be a very efficient implementation.

As a result of the calculations, IRD values have been determined to be 100% for Emre, 100% for Eda and 85,71% for Ali. In this study, IRD value has been calculated as 95,2% on average. According to Parker, Vannest and Brown (2009), the conducted study could be stated as a very efficient implementation.

As a result of the calculations conducted in an internet-based calculator, NAP values have been detected as 100% for Emre, 100% for Eda and 92,86% for Ali. In this study, NAP value has been calculated as 97,6% on average. According to Parker and Vannest (2009), the conducted study could be specified to be a very efficient implementation.

The Social Validity Findings of the Study

The subjective assessment data of the study have been collected via semi-structured interview technique conducted with the parents of the participants and analyzed with content analysis. Parents have given positive views on the used method, target skill, convenience and benefits of the skill. They have expressed that the efficient leisure time using skills and the self-management behaviors obtained by their children have positive impacts on them and their children use their leisure time in an effective and productive way.

The performances of the participants of the study and those of 15 peers showing normal development regarding the target skill have been compared. All the peers showing normal development and taking place in the reference group have shown the target skill by the ratio of 73,3% on average. It is seen that the performance levels of the participants regarding the efficient use of leisure time behaviors are low when compared to their peers showing normal development and taking place in the reference group before the performance of instruction sessions conducted by using self-management strategies. After the conducted instruction sessions, the participants have started to show performance at similar levels to their peers showing normal development regarding the efficient leisure time using behaviors.

In the conducted study, permanence data have been collected to determine whether the participants show the target skills after the completion of the teaching sessions and to reveal whether the performances shown by the participants are like the ones shown by their peers taking place in the reference group. It has been observed at the end of the study that the participants show the target skills even after the completion of the instruction sessions and their performances are like the ones of their peers taking place in the reference group.

Findings Regarding the Sustained Attentions of the Participants

In the study, the attained data have been examined for the purpose of determining whether the participants could sustain their attention while dealing/playing with the leisure time activities they have chosen. Emre has given his attention to the leisure time activity he has chosen for 6,8 minutes on average at the end of the conducted sessions and has shown a performance by the ratio of 97,8% on average. While Eda has given her attention to the leisure time activity she has chosen for 7,3 minutes on average and shown a performance by the ratio of 100% on average, Ali has given his attention to the leisure time activity he has chosen for 7 minutes on average and shown a performance by the ratio of 100% on average.

Discussion

In the conducted study, it has been examined whether the self-management strategies are efficient in enabling the individuals with ID to gain the skills of the effective use leisure time by using the self-management strategies and in fulfilling the behaviors required by the self-management strategies, whether the learnt skills are kept one, three and four weeks after the completion of the teaching sessions and whether the participants could generalize the skills they have learnt to different people, environments and materials. Moreover, it has also been aimed to determine the social validity and to determine whether the participants could sustain their attention while dealing with the leisure time activities they have chosen.

Findings of the study show that self-management strategies are efficient in enabling the individuals with ID to gain the skills of efficient leisure time use and gain the behaviors required by the self-management strategies. The findings of the study show similarities with the findings of the studies conducted by using self-management strategies in the literature (Amato-Zech et.al., 2006; Copeland et.al., 2002; Brooks, 2003; Çelik, 2010; Gureasko-Moore et.al., 2006; Hansen, 2013; Hampshıre et.al., 2016; McCoach, 2008; Wehmeyer et.al., 2003). For example, Hampshire et.al. (2016) have examined the efficiency of the self-management strategies in performing the activities and homework given to the children with autism spectrum disorder. At the end of the study, participants have done the homework and activities given to them in an independent way. Self-management strategies have been found as productive in gaining the target skills at the end of the study. The efficiency findings of the study conducted by Hampshire et.al. (2016) and the efficiency findings of this study show similarities.

As in the efficiency findings, the generalization findings of the conducted study show similarities with the studies conducted in the literature. It has been determined in the study conducted by Haytabay Sosun and Özdemir (2012) that the participants could generalize the behaviors they have gained to the silent reading activities where the technique is not used. In this study, participants could generalize the leisure time using skills and the self-management behaviors they have obtained to a different environment, namely to a house environment. The participants are seen to be able to generalize the skills they have learnt to a house environment, in other words, a natural environment. The fact that the participants could generalize the target skills to a house environment differentiates from the generalization findings of other studies and reveals the authentic side of the study.

The efficient and productive use of leisure time is an important factor for the individual to spend his/her time in a nice way and by doing the activity s/he wants. Thereof, effective leisure time using skills have been taught to the individuals with ID by using the self-management strategies in this study. Participants have learnt the target skills at the end of the study. When the literature is examined; the fact that no studies could be reached in which the skills of the effective use of leisure time by using self-management strategies are gained to the individuals with ID reveals the authentic side of this study. Furthermore, this study is considered to make both theoretically and implementationally great contributions to the related literature.

Social validity data have been collected in the study via subjective assessment. The parents of the participants have shared their opinions on the used self-management strategies and the effective leisure time using skills. Parents have expressed that the learnt skills are beneficial for their children, and they have learnt to use their leisure time in a more efficient and productive way. When the literature is examined, social validity data have been obtained regarding subjective assessment also in the studies conducted

by using self-management strategies (Browder and Minarovic, 2000; Hughes et.al., 2000; Gilberts et.al., 2001). The subjective assessment findings of the conducted studies show similarities with the subjective assessment findings of this study.

Another finding of the conducted study is the collection social validity data via social comparison. Social comparison data have been collected to determine whether the individuals with ID show the target skills they have attained in similar level with their peers showing normal development. At the end of the study, the individuals with ID have been seen to show performances of the target skills in similar levels with their peers showing normal development. It is seen in the literature that social comparison data have been collected in a limited number of studies (Hughes et.al., 2000; Koegel et.al., 1999; O'Reilly et.al., 2002). The social comparison findings of the studies in the literature show similarities with the social comparison findings of this study.

Learning how to use the self-management strategies could be said to be effective for the individuals with disabilities to accept the results of their behaviors and gain responsibility. Teaching self-management strategies to the individuals with ID encourages the individuals to have self-confidence and start their lives in an independent way (Cooper et.al., 2007; Hoff and SawkaMiller 2010). In the conducted study, the skills of using self-management strategies have also been taught to the individuals with ID as well as the skills of using leisure time effectively. Therefore, participants could be said to have learnt the skills of life responsibilities by learning the self-management behaviors and to accept responsibility on their own behaviors.

The conducted study has some limitations as well as the efficient results and the discussed sides. It could be said that the study is limited to the three participants diagnosed with ID and participating in the study voluntarily, to 15 participants showing normal development with whom social comparison data have been collected, to the self-management strategies whose efficiency has been examined in using leisure time efficiently and to the leisure time activities used during the process of gaining the skills of using leisure time effectively.

Results and Recommendations

When the findings of the study are examined, it has been determined that self-management strategies are effective in enabling the individuals with ID to gain effective leisure time using skills and in teaching the behaviors required by the self-management strategies, the participants have shown the target skills one, three and four weeks after the completion of the teaching sessions and they could generalize the skills they have gained to different people, environments and materials. Moreover, the participants have been found to sustain their attention during the leisure time activities they have chosen and parents have been found to render positive views on the self-management strategies and the effective leisure time using skills. Besides, the fact that the individuals with ID participating in the study have shown performances of the target skills at similar levels to those of their peers showing normal development takes place in the findings of the study.

In the light of the attained findings of the study, some suggestions could be made for implementation and future studies.

- Self-management strategies could be taught to the educators working with individuals with special needs.
- The use of self-management strategies could be taught to the families with individuals with special needs.

- The conducted study has been carried out with individuals with ID. Effective leisure time using skills could be taught to other groups with special needs.
- Teaching of the skills of the effective use of leisure time could be carried out in different environments.
- The skills of using self-management strategies could be taught to individuals with different developmental disabilities.

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