The Effectiveness of the Instructional Programs Based on Self-Management Strategies in Acquisition of Social Skills by the Children with Intellectual Disabilities

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Abstract
The purpose of this study is to evaluate the effectiveness of self-management skills training program, based on self-control strategies, on students with intellectual disabilities. A multiple-probe design across subjects single-subject research methodology was used in this study. Nine students with intellectual disabilities, whose ages are between 10-12, participated in this study. The research findings presented that the self-management skills training program was effective on presenting anger without harming others, solving dissimilarities by talking and solving conflicts without fighting on students with intellectual disabilities and they continued using these skills after the program ended.

Key Words

Social skills are essential components of initiating and maintaining positive interactions with others. Social skills, defined as acting appropriately regarding the social environment, have a very important role on establishing interpersonal relationships and achieving social goals. Social skills simplify person’s expressing their positive and negative emotions in an appropriate way, defending their personal rights, asking for help when needed and rejecting the requests that are not suitable for them (Akçamete & Avcioglu, 2005; Bluestein, 2001; Carroll, 2002; Coleman, 1992; Gresham & MacMillan, 1997; Gresham & Reschly, 1988; Merrell & Gimpell, 1997; Sucuoğlu & Çifçi, 2001; Vural, 2006; Watkins, 1995).

Many social skills are acquired unconsciously and in a nonsystematic way in peer groups and family environment (Avcioglu, 2005). Children acquire social skills by modeling and observing their families, siblings, peers and other adults. This technique is called as unconscious and nonsystematic way of learning. However, this nonsystematic way of learning does not apply for children with intellectual disabilities. Children with intellectual disabilities cannot acquire social skills by observing their peers without special needs. They are needed to be taught social skills in a systematic way and to be supported on these social skills. Therefore, early intervention of social skills intervention is essential. In the absence of early intervention, they will fall behind their peers on social and academic performances. This shows us the necessity of the social skills programs to provide peer interaction and social integrations for children with intellectual disabilities (Erwin, 2000; Huang & Cuvo, 1997).
Social skills are generally acquired by observing other individuals, modeling and imitating the observed behaviors and making these acquired skills permanent by providing feedbacks. Nowadays, in many developed countries, the importance of social skills is recognized and social skill training is included in educational programs. It is necessary to include the developmental features of students and their performances in social skills training programs. The first step of teaching social skills is to determine where to start the program based on the individual performances and priorities of students. Suitable education programs should be developed after determining priorities for students (Westwood, 1993).

Many correction methods and educational programs based on these methods are used to increase students’ social interaction with other students and their peer groups (Elksnin & Elksnin, 1998; Rustin ve Kuhr, 1989). One of the techniques which is used is self-management strategies for that matter. Self-management strategies are alternative strategies to improve academic performance, reduce inappropriate behaviors at school, increase appropriate behaviors and provide generalization of these learned behaviors of students (Boyle & Hughes, 1994; Brigham, 1978; Browder & Shapiro, 1985; Colvin & Sugai, 1988; Heward, 1987; Todd, Horner, & Sugai, 1999). It is a necessity to learn self-management strategies since students’ being conscious of their educational process and controlling their learning will improve the generalization of their behaviors (Agran et. al., 2005; Agran, Snow, & Swaner 1999; Brown, Campione, & Day, 1981; Dickerson & Creedon, 1981; Özkan, 2007).

Programs based on self-management strategies will improve social skills of students with intellectual disabilities and prevent them to present inappropriate behaviors. In other words, it will make them acceptable individuals in society, express themselves more appropriately, harmonious with environment and their peers and be aware of their own actions (Agran & Alper, 2000; Agran, King-Sears, Wehmyer, & Copeland, 2003; Alberto & Troutman, 1995; Özkan, 2007; Özmen, 2006; Schloss & Smith, 1994).

There are studies peer tutoring (Özaydın, Tekin-İftar, & Kaner, 2008; Sazak, 2003), cognitive process (Ciğici, 2001; Dağseven-Emecen, 2008), direct teaching (Alptekin, 2010; Çakur, 2006; Özoğcu, 2008), drama (Akfirat, 2004; Eldeniz, 2005; İpek, 1998), cooperative learning (Avçioglu, 2001), self-management strategies (Çelik, 2010), music therapy (Çadır, 2008), script and script fading procedure (Eliçin, 2011) and social history (Balçık, 2010) on teaching social skills with students with special needs in Turkey. These studies are very limited in terms of quantity.

Teaching self-management skills by using self-management strategies to students with intellectual disabilities was planned in this study. The aim of the study is to evaluate the effectiveness of self-management skills training program, based on self-control strategies, on students with intellectual disabilities. For this purpose, questions below were tried to be answered in this study; (a) Is the self-management skills training program effective for students with intellectual disabilities to acquire, maintain and generalize presenting anger without harming others skill? (b) Is the self-management skills training program effective for students with intellectual disabilities to acquire, maintain and generalize solving dissimilarities by talking skill? (c) Is the self-management skills training program effective for students with intellectual disabilities to acquire, maintain and generalize solving conflicts without fighting skill?

Method

Research Method

A multiple-probe design across subjects single-subject research methodology was used in this study. Experimental control of this study was obtained by observing an increase on the target skills of the target students’ interaction with their peers at baseline period after the implementation of self-management skills training program.

Dependent variable of this study is the acquisition level of target students’ self-management skills. Independent variable of the research is the self-management skills training program that aims to improve the self-management skills of the target students.

Participants

The subjects, peers, interventionist, and observers participated in this study.

Subjects: The students who participated in this study were expected to have some prerequisite skills: These skills can be listed as; (1) not having the target skills in their repertoire, (2) having expressive language, following directions, reading and writing skills, matching and counting skills and be willing to study, which are all prerequisite. Nine students with intellectual disabilities, whose ages are between 10-12, participated in this study.
Peers: Peers, 4 girls and 5 boys, participate in the elementary school with the target students; their ages are between 8-10 they all attend from second to fourth grade.

Interventionist: The target skills were implemented by the interventionist who works at the same elementary school where the students are enrolled. The interventionist was a special education graduate who worked at the school where the implementation took place. The interventionist had an experience on self-management skills.

Observer: Reliability data were collected for the dependent and independent variables of the study.

Environment and Materials
The intervention took place at the playroom of the school, which was allowed to be used during this study. Stories for each skill and picture cards for the appropriate and inappropriate forms of the target skills were prepared and a self-management contract and observation and evaluation forms were prepared. Baseline, probe intervention, and follow-up date were collected at the same playroom. The data regarding generalization were collected in the students’ own classrooms.

Intervention Period
Pilot study and the intervention are mentioned in this section.

Pilot Study: A pilot study was conducted to be able to determine whether the intervention program is applicable or not. The lesson plans and the data collection materials were applied to the students who have the same characteristics with the target students.

Baseline Sessions: Baseline sessions were recorded with a video camera and the baseline data were collected by watching the target skills, which are explained under the title of dependent variables, inside a group by the interventionist. Correct responses of the students were verbally reinforced and incorrect responses were ignored during these sessions. Appropriate and inappropriate forms of the skills were not described, self-observation, evaluation and giving feedback phases were not explained and no models were provided to the students during follow-up sessions. The students were read a story and they were asked to answer the questions about this story. The pre-stimuli, activity sheets, control sheets, prompts and reinforcers that were used in follow-up sessions remained the same and no changes were made at the graph and self-evaluation forms. Baseline data were collected at three consecutive sessions for each student. Probe sessions were planned at the same manner with baseline sessions.

Intervention Sessions: Presenting anger without harming others, solving dissimilarities by talking and solving conflicts without fighting skills were taught simultaneously and the intervention took place at one 40 minutes session each day and 4 days in a week. Intervention sessions continued three consecutive sessions until 100% criteria was reached. The same process in the activities of the intervention plan was followed during the intervention. A short description was given about the target social skills to the students by the interventionist, before starting the intervention and they were expected to follow the procedures at the activities.

Follow-up Sessions: Follow-up sessions were planned at the first, third and the fourth weeks in the same manner with baseline sessions.

Generalization Sessions: Generalization sessions took place in order to evaluate whether or not the target students generalized self-management skills to different environments and people.

Data Collection
Effectiveness, reliability and social validity data were collected in this study in this order.

Effectiveness Data Collection: For the effectiveness data, correct and incorrect responses of the students were recorded and percentage of the correct responses were calculated.

Presenting anger without harming others was described as; noticing anger when physical changes occur (frowning, body's tensing up, grinning teeth and clenching fist) at someone’s body, looking at person with an angry face and expressing anger by using the verbal statement “I am angry with this behavior”.

Solving dissimilarities by talking was described as; remaining calm when noticing dissimilarities with others, expressing the difference for herself/himself, allowing other person to express his/her own opinion.

Solving conflicts without fighting was described as; remaining calm when having conflicts with others, expressing the problem from his/her point of view, making explanations on how the problem should be solved, allowing other person to talk about the matter.

The ability to present the target skills was evaluated at each session of the intervention according to the
degrees, described above. Three different types of student behaviors were described as; (1) Student could not present the skill, (2) Student presented the skill but not at an acceptable level and (3) Student presented the skill at an acceptable level. A “+” was recorded when a student presented the skill at an acceptable level, and “-” was recorded for other conditions at the data recording sheet and the percentage of the correct responses was calculated. The results of the data collection sheet were marked on the graph.

Reliability Data Collection: As the reliability data of the study; (a) Interobserver reliability and (b) procedural reliability data were collected. Video were watched by the observers and interobserver reliability data were collected at least 30% of all baseline, probe, intervention, generalization and follow-up sessions.

As the procedural reliability data the behaviors of (1) determining the instructional goals and explaining these goals to students, (2) selecting appropriate students for these goals, (3) presenting the materials to student, (4) explaining appropriate and inappropriate forms of the behaviors with their reasons, (5) examining the picture cards of appropriate and inappropriate forms of the behaviors with students, (6) signing the agreement of learning and using of self-management strategies together with students, (7) teaching the phases of self-observation, self-evaluation and giving feedbacks to students, (8) helping student to demonstrate the story about the target behavior, (9) students’ achieving the phases of self-observation, self-evaluation and giving feedbacks, (10) rewarding the correct responses of students were observed and the correct responses of the interventionist were marked as (+) and incorrect responses of the interventionist were marked as (-) at data collection sheet. Then, the numbers of correct responses were determined; percentages of correct responses were calculated and recorded at data collection form. Procedural reliability data were collected at 30% of all experimental sessions by the observer (Tekin & Kircaali-İftar, 2001).

Social Validity Data Collection: Mother and teacher interviews were conducted to be able to determine the importance of the results of teaching self-management skills; presenting anger without harming others, solving dissimilarities by talking and solving conflicts without fighting skills for students.

Data Analysis

A graphical analysis was made for the data that were obtained as the result of this study. Linear graphing technique was used to analyze the data. Social validity data, obtained from mothers and teachers with semi-constructed interviews were analyzed with descriptive analysis. Social validity data were analyzed by frequency and percentage calculations.

Conclusion

Findings related to acquisition, maintenance and generalization of presenting anger without harming others, solving dissimilarities by talking and solving conflicts without fighting skills to different environment and people were mentioned at this section.

It was observed that the students did not have presenting anger without harming others, solving dissimilarities by talking and solving conflicts without fighting skills at baseline level of the study. Percentage of correct responses changed from 25% to 100% and students reached the acceptable criterion (100%) at six or seven sessions during intervention.

It was observed that students reached the acceptable criterion (100%) at all three of the follow-up sessions that were conducted at the first, third and the fourth weeks after the intervention ended. The correct rate of generalization of the target skills to different environment and people was also 100%. The data from the end of intervention and generalization periods were at the same level.

Discussion

The findings of this study demonstrated that the self-management skills training program was effective on presenting anger without harming others, solving dissimilarities by talking and solving conflicts without fighting on students with intellectual disabilities and they continued using these skills after the program ended. Besides, these skills were maintained after the intervention and generalized to different environments and people by the students. The numbers of sessions to be reached at the acceptable criterion level were not different among students and changed from 5 to 7. The lessened number of sessions can be attributed to having an entertaining story demonstration, using different activities and presenting preferred reinforcers to students during this study. Using these strategies and obtaining effective results should be considered as one of the strengths of this study. These findings demonstrate similarities with the results of the research studies, done to present the effectiveness of self-management skills on reducing problem behaviors (Boyle & Hughes, 1994; Brigham, 1978), ac-
academic skills (Coleman & Blansied, 1977), social skills (Çelik, 2010), self-care skills (Mickler, 1984), functional communication skills (Stahr, Cushing, Lane, & Fox, 2006), completing a task and written language skills (Copeland, Hughes, Agran, Wehmeyer, & Fowler, 2002; Todd & Reid, 2006; Wolfe, Heron, & Goddard, 2000).

All of the students who participated in this study generalized the target skills to different environments and people at a 100% criterion level. From this finding, it is possible to say that the target skills which were acquired by self-management strategies can be easily generalized to different environments and people. This obtained finding is consistent with the results of Brooks, Todd, Tofflemoyer, and Horner (2003), Bambara and Gomez (2001), Chan (1991), Embregts (2000), Gumpel and Golan (2000), Hughes et al. (2002) and Özdoğan (2000), studies which demonstrated that self-management strategies can be generalized to different environments, situations and people. According to Boyle and Hughes (1994), Brigham (1978), Colvin and Sugai (1988), Todd et al. (1999), self-management strategies are one of the alternative strategies that are used for the generalization of acquired skills. These strategies contribute to the generalization of acquired skills since they help students to control awareness of their own learning process. Therefore, it is a necessity for students to learn and for teachers to use these strategies.

Towards these results, suggestions can be made for further studies: Both special education teachers and regular education teachers can use these strategies to teach skills from different disciplines and to reduce inappropriate behaviors of students with special needs. Easy to use self-management strategies can be use by peers, parents and caregivers besides teachers. Self-management strategies such as; self-control, self-stimulation, self-recording, self-directing, self-evaluation, and self-reinforcing can be allowed for teaching in lesson plans by teachers.

References/Kaynakça


