The Effect of Creative Drama on Pre-teaching Skills and Social Communication Behaviors of Children with Autism

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ABSTRACT This research aims to evaluate the effectiveness of creative drama in education on pre-teaching skills and social communication behaviors of children with autism. The research is based on a 6-year-old girl with autism, attending pre-school inclusion classes in Izmir, Turkey. To evaluate the specify effectiveness, this research is, among single subject designs, multiple baselines across behavior models, pre-test and post-test designs. The study is expected to indicate the positive impact of applied training on developing receptive language skills, social interaction, social independence, and a social collaboration: instruction following, attention gathering and awaiting the turn. Based on the findings of this research, it can be said that the drama education in early childhood for children with autism has a positive effect on teaching social skills and pre-teaching skills.

INTRODUCTION

Early childhood is a process which contains the years from birth to the day of basic education. This period contains such features as shaping the personality, progressive change of the child, accomplishment of the physical, mental, psychomotor, social-emotional, cognitive developments as well as acquisition of language skills. All these features have the primary role for the future life. In other words, the mental, physical and language development of the child is substantially accomplished in the period between 0-6 years. What people learn throughout their lives is learnt in this period and this is 75 percent of what they know by the end of their life (Bloom 1979; Özçelik 1999). The early years form a systematic support to the full capacity of the child as it can present a substructure for the upcoming education period (MEB 2005; Batu and Kırcaali-Iftar 2005; Sucuoglu and Kargin 2006). In this regard, Yazici (1999) investigated the difference between the level of academic maturity of 6-year-old children and made a comparison between those who did and did not receive pre-school education. He found that pre-school education has positive effect on academic maturity of children. This indicates that early childhood education is important because the acquisition of the child in pre-school is an assurance for the subsequent acquisitions. Therefore, it can be claimed doubtlessly that, in acquisition of basic skills and social acknowledgement of the children with disabilities, early childhood education has a great importance. The researches indicate that the children with disabilities who join to the inclusive programs in early childhood have the opportunity to acquire the basic communication skills which will easy their process of fitting in to society in their future life (MEB 2005; Yildirim-Dogru and Durmusoglu-Saltali 2011). When the effect of early childhood education for children who has special needs are investigated, it is seen that the cognitive, social and language skills of the children who participate in early childhood education increase while they are, at the same time, physically developing. The research by Spiker (1990) determined the provision of helping parents and re-motivating the children in their early stage of life is the biggest profit of the early education programs. So, it is obvious that early childhood education for the children with special needs is not only important for the child’s development, but it is also important for easing family engagements. In early childhood education, while the child is expected to realize himself/herself with the talents and characteristics they have had since birth, they are also expected to join the society in an efficient and active manner. Just at this point, early childhood education for children with spe-
cial needs becomes more important and urgent. Acquiring self-care and life skills and also learning social skills such as sharing, mutualization, collaboration and social responsibility are the expected skills that are to be provided by the early childhood education for children with special needs.

The development of social skills is important in the life of children with/without disabilities. The children with disabilities are less advantageous in social competence and development of social skills. That’s why, to develop the social skills of the people with disabilities whose social inadequacy is defined, convenient education programs are needed to be designed and applied. In these education programs, the main point which should be implied is to train social skills (Önalan-Akfirat 2004; Ömeroglu 2002). In Meyer and Ostrosky’s (2015) study, they investigated whether a class-wide disability awareness curriculum would result in increased close friendships for 26 kindergarteners with disabilities enrolled in six inclusive classrooms. Findings suggest that participation in a disability awareness curriculum alone does not lead to increased friendships. Evidence suggested having a close friendship may partially mediate the relationship between children’s social competence and acceptance. These findings are aligned with research that emphasizes the importance of individualizing class-wide programs based on children’s support needs and facilitating children’s friendship formation in kindergarten classrooms to promote peer acceptance. Implications for the future, new support program research and practice are discussed. There are many ways to train social skills. Rhythm, drama, and pantomime are used for education of children with mental deficiency by many educators (McCaslin 1990). In addition, to gather attention skills, drama experience may be a powerful factor in development of social and communication skills for children (Kempe 2014). Drama does not only perform imaginary stories, but also deepen the level of thinking with the help of questions the story brings forward and provides mental discharge and self-expressions. Besides, drama helps the child ask questions of “how” and “why.” Using drama in education helps the child understand and think better (Irwin 1986; Gönen 1998). Drama is more useful in learning and self expressing for children with mental deficiency rather than without. Children with mental deficiency have the opportunity of perceiving a problem at their level, solving and explaining it by the help of drama (D’Amico et al. 2015) Usage of drama will help these children learn several things about life through innocent trials, learn to believe in themselves and experience the satisfaction of joining a group. Furthermore, the stories can develop children’s imagination by drama and it will teach children to be ready for new experiences and thus, they set up a substructure for verbal communication. They will be able to gather their attention for a long period of time by developing their listening and observation skills (Gönen and Dalkılıç 2002; Bayhan and Yükselen 2007; Önder 2009).

This research is important in acquisition of pre-teaching skills and social communication skills of the children with autism who attend to pre-school inclusion classes.

**METHODOLOGY**

This case study, involves a 6 year old girl with autism who attends inclusive education.

**Research Model**

In this research, among single subject designs, multiple baselines across behavior level and pre-test and post-test without control group model are used. With this model, the equilibrium on a target behavior is investigated with more than one behavior. First, the commencing level data is collected from the informant. After the commencing level has revealed determination, the application starts with the first behavior. During the behavior pattern, the effectuation counterbalances the criteria, the probe state is allowed for all behaviors and data is collected in three sessions successively. It is expected that probe session to counterbalance the criteria for first behavior and for other behaviors, it is expected to be at the similar level with commencement level. After the probe session, the second behavior is applied. It is expected that probe data can counterbalance the criteria for first behavior and for other behaviors, it is expected to be in the same level as the commencement level. After the probe session, the second behavior is applied. It is expected that probe data can counterbalance the criteria for the second behavior, and for the other situations, it is expected to be at the similar level with commencement level. This application is renewed for all behaviors (Kircaali-Iftar and Tekin 1997).

In this research, the inter-application multiple probe desiging with probe session is tested first, then the commencement level data is col-
lected. After the equilibrium of the commencement level data, the teaching of concepts with informant is started. In the last probe session, the data of the informant are expected to counterbalance the criteria. The data is collected for educating pre-teaching skills by the drama program for which the applicator prepared. Latter 30 percent of each application was recorded and evaluated.

Working Group

The case study was presented and conducted by a female informant who attends a special education and rehabilitation center and, at the same time, participates in Inclusive Education Applications. The participant is a 6 year old female who has autism. The child is selected by the method of sample selection criteria. For this reason, she forms the research group of:

- Making eye contact,
- Looking face to face,
- Autism,
- Desire, to participate in a group activity.

The children who have these criteria are identified by classroom observation and teachers opinions.

Trainers

A researcher has conducted the study. The application part of the research has been realized by the researcher. The researcher that realized the application process has ten years of experience in giving education to the children who need special education.

Data Collection Tools

The data of the research is collected with two different collection tools. In the research, to measure social skills and problem behaviors, PKBS Preschool and Kindergarten Behavior Scales Form B are used: Additionally, by using multiple probe design across behaviors from single subject research design, registration forms are used to collect data.

PKBS Preschool and Kindergarten Behavior Scales Form B

The data collection tool is formed by 2 forms and 76 likert-type questions, which was intended to determine the social skills and problem behaviors of the nursery school and kindergarten children. In this research, Form B, Social Skills Scale is used.

“Social skills” consists of three sub-dimensions; social collaboration, social interaction, and social independence. Teachers exercised their attitude by ticking one of the categories which are “strongly disagree,” “disagree,” “neither agree nor disagree,” “agree,” and “strongly agree,” which was indicated on the form. Teachers gave 1-5 points to the items on the scale. High points were expressed to be developed in social skills.

To provide the construct validity of the scale, factor analysis (Principal Component Analysis) was done. The percentage of the total variance explains which intended to measure 3 factors belonging to social skills dimension in 74.34% and the Cronbach’s Alpha Reliability Coefficient was 98. The factor load of the items change between 55 and 88. In the scale, the Cronbach Alpha coefficient of the social collaboration sub dimension was 97, Cronbach Alpha coefficient of social interaction sub dimension was 95 and Cronbach Alpha coefficient of the social independence sub dimension was 95 (Çeliköz et al 2010).

As for the second data collection tool, which was used in this research, a measurement instrument was developed to collect student’s commencement level, teaching and observation data for teaching pre-teaching skills. The instrument prepared consists of three sections: statements, criteria, measurement tool directive. Besides, information about why the target skill was selected, the place where the measuring instrument was applied, time of the students’ reaction, determination of the evaluation measuring instrument and preparation of the data collection chart were the other constituent of the prepared measuring instrument.

Preparation of the Individualized Education Program

The individualized education program was prepared for teaching the determined pre-teaching skills. Direct teaching method were used in this program.

Data Collection and Application

With the prepared data collection tools, commencement, application and observation data were collected. While collecting data in the commencement level and application sessions, of single opportunity methods were used.
Process of data collection continued for a year. In this period, a development evaluation form was applied to the case and Problems such as: social communication (talking) request, joining games, awaiting her turn, following rules, following directions, and self-confidence. Was detected during the drama lesson activity. Within the pre-teaching skills; social communication, social collaboration, social independence and communal skills, and within social skills were the activities completed with the informant. During the applications, mid-term evaluation is done each month and new subjects are added to the program. An Individualized Education Program (IEP) is prepared for each new subject. Teachings are maintained either individually in a resource room or for group education within classroom. This study was completed with short drama workshops related to pre-teaching skills and social communication skills during 16 weeks. After the 16-week-education period, the situation of the child was assessed with posttest. After four weeks, the applications were reviewed for permanence assessment. While preparing education programs for the creative drama, a literature review was completed. Social behaviors and educational targets such as following directions, awaiting her turn and gathering the attention and social communication skills were determined for the child. Afterwards, a 16-week creative drama education program was prepared in such a way as to contain motion studies, pantomime, role playing, improvisation and composing plays by stories. The program conducted two session per week which was a total of 32 sessions. Each session was completed between 20 and 35 minutes. After the sessions, in assessment phase, open-ended questions about activities and the subject were asked to provide the emotions and considerations to be shared and the acquisitions to be reinforced. The same application was considered with the afternoon class of four-year-old groups with the same school.

Data Analysis

The research was based on true answers the informant submitted to the tests, which were applied to measure the level of pre-teaching and social skills. The true answer percentage was calculated by dividing the number of the total items by the number of the informant’s true answers and multiplied by one hundred.

Reliability Analysis

In this research, to analyze inter-observers reliability and application reliability, all the data was recorded.

Inter-observers Reliability

Inter-observers reliability and application reliability data was collected for least 20 percent of the probe and application sessions. The inter-observers reliability was written for the Data Collection Form by 2 researchers who was not included in the application process. Instead these researched by watched video recordings of each other. Coefficient of inter-observers reliability was calculated by using the formula; “Agreement/(Agreement + Disagreement)x100. Meanwhile, in the single subject desing acceptable inter-observers reliability coefficient is 80 percent, ideal inter-observers reliability coefficient was 90 percent (Kircaali-Iftar and Tekin 1997). In analysis of this research, inter-observers reliability coefficient was obtained at 100 percent.

Application Reliability

In this research, the analysis of application reliability was developed to review if the independent variable was applied as planned or not. All the studies done to collect the data of application reliability were recorded. The 50 percent of the studies which was determined by unbiased assigning were investigated by the researchers who conducted the reliability of the research. Before starting the application reliability studies, pre information, on how teaching would be completed was given to the applicators by the researchers who would do the application reliability. While watching the data which was obtained at the end of the application, the researcher marked the Application Reliability Form as (+) or (-) by deciding if the items on the Application Reliability Form was true or false Each step of the application was written in terms of complete or done or not completed by the applicators. Application reliability was calculated by “Observed Behaviors of the Teachers/ Planned Behaviors and the Teacher x100” for 50 percent of the teaching sessions which are done for each informant that was determined by Unbiased Assignment Table. After the study was completed, application reliability of this research was determined at 90 percent.
RESULTS AND DISCUSSION

Research data is collected before and after the training with a model without a control group pre-test and post-test. Participant’s performance on pre teaching skills is shown in Figure 1. Participant’s Performance on Pre Teaching Skills.

The obtained findings presented the positive effect of the drama education applied in early childhood on child with mental deficiency. As it is seen in Figure 1, while the commencement level data is 10 percent in the first informant, it was zero for the other two. Because the consistency is acquired in three sessions for commencement level data, it has been passed to teaching application with first informant. By achieving 100 percent in teaching the skill to await her turn, the target criterion was compensated. Application phase was finished when the informant acquire the terminal behavior at the end of the application sessions and continued with second probe phase. It was seen that the first informant achieved 100 percent in terminal behavior for each of three probe phases.

As it is seen in the second diagram of Figure 1, commencement level data is achieved as level 10 for second informant. Because the consistency is acquired in three sessions for commencement level data, it has been passed to teaching application with second informant. By achieving 100 percent in teaching the skill to follow directions, the target criterion was compensated. Application phase was finished when the informant acquired the terminal behavior at the end of the application sessions and continued with second probe phase. It is seen that the
first informant achieved 100 percent in terminal behavior for each of three probe phases.

As it is seen in the third diagram of Figure 1, commencement level data is achieved as level zero for second informant. Because the consistency is acquired in three sessions for commencement level data, it has been passed to teaching application with the third informant. By achieving 90 percent in teaching the skill to gather the attention, the target criterion was compensated. Application phase was finished when the informant acquired the terminal behavior at the end of the application sessions and continued with the second probe phase. It is seen that the first informant achieved 90 percent in terminal behavior for each of three probe phases. As it is seen can be seen in Figure 1, following the treatment sessions generalization and maintenance sessions are applied. Maintenance sessions show us that three weeks after the intervention, the social behavior which was learned, continued.

Drama can provide different opportunities in education for children with different properties (Ingersoll and Dvortcsak 2010). Önalan Akfirat (2004) investigated the impact of the creative drama on development of social skills of 10 hearing-impaired children between the age of 10-12. In the research, pre-test post-test control group experimental design was used. It resulted by implying the positive effect of creative drama education on the skills of "representing one self when meet for the first time" and "thanking when helped." Citation Barnes (1998) implied that the hearing-impaired children who receive the creative drama education are more successful in social, emotional, and cognitive development than these, who do not receive education, Wager (1983) implied that the creative drama develops the autistic adolescents' social skill, game skill and increases the awareness of themselves and others, Roach (1990) implied that study of a spectacle of the children with mental deficiency, which is done with drama method, increases the language, motor, social, and cognitive skills (cited in; Önalan 2004). Ramey and Ramey (2004) researched the impact of inclusive education and early intervention on the child’s preparation for school and proved the positive impact of the early intervention. Erbay et al. (2015) implied that the effect of drama in education on language and communication skills of children between 48-60 month-old. In this study, pre-test and post-test of the control groups experimental design has been utilized on collectively 64 children; 32 children from test group and 32 children are from control group. Research findings have manifested that drama education improves language and communication skills of children.

The performance on points of pretest and posttest of the informant’s PKBS Preschool and Kindergarten Behavior Scales Form B. When the pre and post test is investigated, informant’s PKBS Preschool and Kindergarten Behavior Scales Form B, the point of social collaboration sub dimension pretest was 45 percent, posttest point was 57.8 percent (Table 1). The 12.8 percent increase was observed in informant’s PKBS Preschool and Kindergarten Behavior Scales Form B in social communication sub dimension point the informant obtain before and after the inclusive education. Informant’s PKBS Preschool and Kindergarten Behavior Scales Form B, the point of social interaction sub dimension pretest was 22 percent, posttest point was 55.7 percent. The 33.7 percent increase was observed in informant’s PKBS Preschool and Kindergarten Behavior Scales Form B in social interaction sub dimension point the informant obtained before and after the inclusive education. Informant’s PKBS Preschool and Kindergarten Behavior Scales Form B, the point of social independency sub dimension pretest was 31 percent, posttest point was 83.1 percent. The 52.1 percent of increase was observed in informant’s PKBS Preschool and Kindergarten Behavior Scales Form B in social independency sub dimension point the informant obtained before and after the inclusive education. Informant’s PKBS Preschool and Kindergarten Behavior Scales Form B, the point of total social skill sub dimen-

<table>
<thead>
<tr>
<th></th>
<th>Social collaboration</th>
<th>Social interaction</th>
<th>Social independency</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>45</td>
<td>22</td>
<td>31</td>
<td>20.05</td>
</tr>
<tr>
<td>Posttest</td>
<td>57.8</td>
<td>55.7</td>
<td>83.1</td>
<td>65</td>
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Table 1: The performance about the points of pretest and posttest of the informant’s PKBS Preschool and Kindergarten Behavior Scales Form B
sion pretest was 20.05 percent, posttest point was 65 percent. The 44.95 percent of increase was observed in informant’s PKBS Preschool and Kindergarten Behavior Scales Form B in total social skill sub dimension point the informant obtained before and after the inclusive education.

Research findings showed that the drama education applied in early childhood develops the social skill. The obtained finding were also parallel to the results of other researchers which investigated the impact of inclusive education. Lindsay (2007) had the result of the support of inclusion to social skill in his studies that investigated the impacts of inclusive education. In Rafferty, Piscitelliand Boettcher’s research (2003) development of the social competence by inclusion was seen. Lal (2005) proved the positive effect of the inclusive education on autistic children on their language and social developments. After the studies completed by her about creative drama with children with social perception deficiency, Guli (2004) mentioned the effect of education on children’s social skills. Jackson and Bynum (1997) showed the positive contribution of drama education to the social interaction of children with emotional deregulations and behavior disorders. Colston (1985) determined that creative drama education makes positive differences on verbal and social communication skills of children with intrinsic disorder of different ages (cited in Özdemir 2003). Cornoy implies the effect specially on acquiring social behaviors to the children with disability in the preschool phase (cited in Özdemir 2002). De La Cruz (1995) stated that the creative drama education given to 35 children with learning disability during 12 weeks positively affected children’s social skills and verbal language skills.

Gathering the attention skill was one of the skills that had importance in child’s preparation to school and it should be developed until the age of 6. The base of the attention-gathering education was based on the child’s finding of his fault and correcting (Özdogan 2004). In gathering and focusing the attention, the child’s interest, learning environment and physical stimuli stands in environment, have great importance (Karaduman 2004; Özdogan 2004). The education environment in inclusion was arranged by the help of these researched. The result of the research showed parallelism with the researches in literature.

CONCLUSION

As known, the period of early childhood is the fastest period for learning. Therefore, to increase the efficacy of this period, education given in pre-school should be planned and performed in a simple, clear and understandable way for children. One of these ways which enhances this success is drama education. Because drama has a close relationship with imagination and creation, the child learns to know his feelings, to live with them or cope with them by this feelings. Just like a normally developed child, the child with mental deficiency also takes the real life as a model and reflects it in his/her games. This can occur slower for children with mental deficiency.

Drama is a discharging and controlled revealing way of feelings containing violence and aggressive. In recent years, using drama in education was being widespread. The games and toys, with numerous benefits for the child, are also vital, which is needed for children with disabilities. As normal developed children, the child with the disability also reflects the real life as a model to his games. In this research, the effect of the drama education in early childhood on teaching social skills and pre-teaching skills are investigated. At the end of the research, the findings have indicated that an effective drama education develops receptive language skills, gathering the attention skills, social interaction, social independence, and social collaboration. Based on these findings, the general result which can be reached is that the drama education in early childhood has positive effect on teaching social skill.

RECOMMENDATIONS

In accordance with the results of this research, the suggestions below can be developed:

♦ Drama activities should be done by noticing children’s developmental process and it is convenient to pass to the next process when all children are ready in the result of the determination of which child is successful in which the process.

♦ Children should be awarded and supported during the drama activities. Besides, trainers should help and support the child to
understand and comprehend the work that he does.

- The trainer should remember that he/she should be flexible in drama studies just like he/she is in all fields of education program. He/she should manage the time of drama activities, which should take between 20-30 minutes.

- Environment of the drama should be arranged by the trainer: it should be an environment that children could do their activities comfortably and in environment that would not block communication.

- This study is a case presentation with a single informant. To increase the reliability of the study, the number of the informants can be increased and development levels among informants can be seen. In addition, this study is done with only one child with autism (mental deficiency). In similar studies, children from different disability groups can be joined and the differences of the development levels can be followed.

- Future longitudinal studies with the same child are important in a way of following the development. It is imperative, this type of longitudinal study should argue for enlightening the way for new studies on similar subjects, reintegrating the child into society, informing the monde about individuals with disabilities and increasing the awareness.

LIMITATIONS

This research is limited to:

- Working with a 6-six-year-old girl with autism
- Creative drama education,
- On social skills of developing receptive language skills, social interaction, and social independence, social collaboration,
- On pre-education skills of instruction following, attention gathering and awaiting their turn.

REFERENCES


THE EFFECT OF CREATIVE DRAMA ON PRE-TEACHING SKILLS

MEB 2005. Special Education Services and Rehabilitation Study Report about Disabled Children. Turkey: T.C. Administration for Disabled People of Turkish Prime.