

Traditional Game-based Learning Model to Stimulate Early Childhood Social Skills

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Abstract:

Background: Social skills are important assets that every child must possess in order to face their future lives. Good social skills help children easily interact with other people, so they can manage to actualize their potentials. Social skills can be manifested by children building relationships and making interactions with their environments. Peer relationship as an important aspect in the manifestation of social skills has high contribution to children's social and cognitive development. One of the activities that can encourage social interactions is traditional games.

Materials and Methods: This study was generally a research and development, but this article specifically explained the process of efficacy testing on the model that had been developed. Thus, this study used experiment research design by involving four experiment groups with different treatments. Instruments used to collect data were observations, interviews, and scales. Scales were used to measure the children's social skills before and after the treatment. Meanwhile, observations were conducted during the research to record the students' and teachers' responses to the learning model that had been developed

Results: The results of the current study showed that there was a significant difference between the pretest and posttest scores on the stimulation of children's social skills in their early years with the learning model based on traditional games, such as Engklek (P1), Congklak (P2), Egrang (P3), and Bola Bekel (P4) with the significance value (2tailed) of which each value was $p=0.0000 < \alpha=0.05$. The results of the statistical analysis showed that the significance difference before and after the treatment was very high.

Conclusion: It can be concluded that traditional game-based learning model that had been developed is effective in stimulating children's social skills.

Keywords: Traditional Game; Social Skills; Learning Model

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I. Introduction

Early childhood is a golden period in one's life. In this period, children need a proper and adequate care and educational stimulation from the adults for their optimum growth and development in accordance with the development stages. Education process for children in early childhood takes place differently from education process for children at school age (elementary school and high school). Early childhood education (ECED), commonly called as a preschool, is an education process that gives children opportunities to enjoy their world through play. Play is the children's way to learn.

The rapid development of information and communication technology in the globalization era has affected the way children play. Many spend longer hours on using gadgets (smart phone, laptop) than on playing with their peers. Playing with peers can help children learn how to build a relationship with new friends and how to solve problems emerging from that relationship [1]. It must be admitted that modern games can increase children's technological literacy and creativity as their complexity varies. However, if modern games are not balanced with other kinds of games, children can suffer from lack of social and natural interactions [2], [3]. This is because modern games focus only on the interaction between children and machine, and elements of violence are often embedded in modern games. As a result, children find it difficult to communicate and socialize with their peers and people around them. This will definitely hinder children's development, especially social skill development.

Social skills are important assets that every child must possess in order to face their future lives. Good social skills help children easily interact with other people, so they can manage to actualize their potentials [4], [5]. Social skills are how a child interacts both verbally and nonverbally with peers and adults. Many parents think that social skills need not be trained. They believe that humans are social creatures and children will be able to automatically learn how to interact with peers. Enrolling children in school or in an educational

institution is good enough for developing their children's social skills. Schools or educational institutions are not necessarily able to develop children's social skills because most schools and educational institutions prioritize the development of cognitive skills without much concern on students' social skill development. Additionally, the proliferation of high technology games has tempted children to play more at home than with friends.

Children's social skills should be developed since their early childhood due to several aspects that promote the importance of social and emotional development as stated by [6], namely: *first*, problems in children's lives become increasingly complex, including the development of science and technology which puts a lot of pressure on children and affects children's social and emotional development; *second*, the awareness that children are future practitioners and investments that need to be prepared optimally in terms of social and emotional aspects should be raised; *third*, the golden period in childhood is limited so that optimal facilitation should be prepared in order not to miss any important phase; *fourth*, children cannot function and develop only by their IQ alone and children need EI to be more prepared in life; and *fifth*, the awareness that every child needs to be socially and emotionally intelligent from an early age should be encouraged. Thus, children primarily need to develop social skills to prepare them for their future and to make interactions in daily lives with family, at school, and in society [7].

Social skills can be manifested by children building relationships and making interactions with their environments. Peer relationship as an important aspect in the manifestation of social skills has high contribution to children's social and cognitive development [8]. One of the activities that can encourage social interactions is traditional games. Traditional games can stimulate various aspects of development in children, especially the aspect of social skills. Through traditional games, children can learn about socialization, cohesiveness, self-control and emotion, responsibilities, compliance with rules, as well as respect for others [9].

Other studies on efforts to stimulate children's social skills have been conducted. [10] found that children's skills increased after stimulated with the incorporation of traditional games in the play method (*Galasin, Kriim, and Lompat Karung*). [11] found in her research that traditional games can aid to develop and train children's social skills, including socializing, working together with friends, empathizing with others, being responsible for the given tasks, as well as competing healthily, honestly and supportively. Similarly, [12] concluded in her research that the traditional game called *boy-boyan* can train group cooperation, develop motor skills, as well as improve interactions and social skills among elementary school-aged children.

Given the aforementioned explanation, children's social skills have been shrinking and traditional games can be incorporated to improve children's social skills. Behavior can also be improved through learning activities in kindergartens or playgroups, at the ECED institutions or at home with friends or neighbors. This suggests the importance of the identification and development of the forms of play that can develop children's social skills. Therefore, reflecting on these problems, the researcher was interested in conducting a research and development about traditional games to stimulate early childhood social skills as well as to preserve local culture in the globalization era at the ECED institutions. Makassar was chosen as the location to conduct the research because it is one of the ECED development areas/cities in South Sulawesi.

II. Material and Methods

Research Design

This study was generally a research and development, but this article specifically explained the process of efficacy testing on the model that had been developed. Thus, this study used experiment research design by involving four experiment groups with different treatments.

Research Location and Subjects

The research was conducted in ECED institutions in Makassar. For the trial test, the subjects were the teachers and students of the B group at the ECED or kindergartens that had implemented a learning model. This study involved four B groups from four ECED institutions (preschools/kindergartens) as the subjects of the trial test in order to test the effectiveness of the experiment research.

- The experiment group 1 was given a treatment of a traditional game called *Engklek/Makdanda*.
- The experiment group 2 was given a treatment of a traditional game called *Congklak/Maggelaceng*.
- The experiment group 3 was given a treatment of a traditional game called *Egrang/Ma'jeka*.
- The experiment group 4 was given a treatment of a traditional game called *Bola Bekel/Ma'gurencang*.

Data Collection Technique

Instruments used to collect data were observations, interviews, and scales. Scales were used to measure the children's social skills before and after the treatment. Meanwhile, observations were conducted during the research to record the students' and teachers' responses to the learning model that had been developed.

Research Procedures

The effectiveness of the traditional game-based learning model to stimulate children’s social skills was investigated through pre-experimental research design by performing the following steps: (1) conducting pretest, (2) having learning processes in the experiment groups, (3) conducting posttest, and (4) analyzing the results of the experiments. The efficacy test involved one class from each of four kindergartens. Pre-test showed children's social skills before being intervened with the learning model based on traditional games that had been developed. Meanwhile, posttest showed the output of children's social skills after being intervened with the learning model based on traditional games that had been developed. The efficacy test was designed with the combination of the pre-experiment, pretest, and posttest on each group. The independent variable of the research was the traditional game-based learning model, while the dependent variables were the early childhood social skills.

Statistical Analysis

The pre-test and post-test data were analyzed using descriptive and inferential statistics on the *IBM SPSS statistic 23* application. Descriptive statistics was carried out to obtain the information about the mean, mode, median, the maximum value, and the minimum value of the data. Meanwhile, the inferential statistics used in this study was t-test in order to see the influence of the traditional game-based learning model on the stimulation of the children’s social skills. However, before the t-test was administered, the normality test was conducted on the data.

III. Result

Results of the Descriptive Statistic Analysis on the Pretest and Posttest

The results of the descriptive statistical analysis on the pretest with seven indicators of children’s social skills showed that: (1) the minimum score of the pretest was 11, while the maximum score was 21. This indicates that some children could not perform the indicators properly, some could perform the indicators with assistance, and some could perform the indicators properly without assistance, (2) the mode or the score that appeared the most often was 16 between the minimum score of 11 and the maximum score of 21 or the median was 16. This means that in general children could not perform the indicators properly. It can be concluded that children before being stimulated with the learning model that had been developed could not perform the indicators of social skills properly. Refer to the Table 4.19 below.

The results of the descriptive statistical analysis on the posttest with seven indicators of children’s social skills after the implementation of the Persis Mitra Serasi AUD model with the traditional game called *Engklek/Makdanda* showed that: (1) the minimum score of the posttest was 19, while the maximum score was 28. This means that children are able to perform the indicators properly without assistance, (2) the mode or the score that appeared the most often was 23 between the minimum score of 19 and the maximum score of 28, and (3) the median was 25. This means that in general children could perform the indicators properly. It can be concluded that children after being stimulated with the learning model that had been developed could perform the indicators of social skills properly. Refer to the Table 1 below.

Table 1. The Results of the Descriptive Statistic Analysis on the Pretest and Posttest of the Traditional Game *Engklek/Makdanda*

| Description | Indicators of Social Skills | | | | | | | Σ |
|---------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| n-pretest | 186 | 180 | 170 | 163 | 176 | 187 | 175 | 1237 |
| n-posttest | 285 | 265 | 280 | 266 | 248 | 279 | 255 | 1878 |
| N-pretest | 304 | 304 | 304 | 304 | 304 | 304 | 304 | 2128 |
| N-posttest | 304 | 304 | 304 | 304 | 304 | 304 | 304 | 2128 |
| % pretest | 61.18 | 59.21 | 55.92 | 53.62 | 57.89 | 61.51 | 57.57 | 58.13 |
| % posttest | 93.75 | 87.17 | 92.11 | 87.50 | 81.58 | 91.78 | 83.88 | 88.25 |
| Pretest Mean | 2.45 | 2.37 | 2.24 | 2.14 | 2.32 | 2.46 | 2.30 | 16.28 |
| Posttest Mean | 3.75 | 3.49 | 3.68 | 3.50 | 3.26 | 3.67 | 3.36 | 24.71 |
| Max-pretest | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 21.00 |
| Max-posttest | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 28.00 |
| Min-pretest | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 11.00 |
| Min-posttest | 3.00 | 2.00 | 3.00 | 2.00 | 2.00 | 3.00 | 2.00 | 19.00 |
| Mode-pretest | 2.00 | 3.00 | 2.00 | 2.00 | 3.00 | 3.00 | 2.00 | 16.00 |
| Mode-posttest | 4.00 | 4.00 | 4.00 | 4.00 | 3.00 | 4.00 | 3.00 | 23.00 |
| Med-pretest | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 3.00 | 2.00 | 16.00 |
| Med-posttest | 4.00 | 4.00 | 4.00 | 4.00 | 3.00 | 4.00 | 3.00 | 25.00 |
| SD-pretest | 0.64 | 0.69 | 0.73 | 0.83 | 0.77 | 0.68 | 0.65 | 2.19 |
| SD-posttest | 0.44 | 0.58 | 0.47 | 0.58 | 0.66 | 0.47 | 0.65 | 2.08 |

The results of the descriptive statistical analysis on the post-test with seven indicators of children's social skills after the implementation of the Persis Mitra Serasi AUD model with the traditional game called *Congklak/Maggelaceng* showed that: (1) the minimum score of the posttest was 20, while the maximum score was 28. This means that children were able to perform the indicators properly without assistance, (2) the mode or the score that appeared the most often was 24 between the minimum score of 20 and the maximum score of 28, and (3) the median was 24.50. This means that in general children could perform the indicators properly. It can be summarized that children after being stimulated with the learning model that had been developed could perform the indicators of social skills properly. Refer to Table 2 below.

Table 2. The Results of the Descriptive Statistic Analysis on the Pretest and Posttest with the Persis Mitra Serasi AUD model and the Traditional Game *Congklak/Maggelaceng*

| Description | Indicators of Social Skills | | | | | | | Σ |
|---------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| n-pretest | 186 | 180 | 170 | 163 | 176 | 187 | 175 | 1237 |
| n-posttest | 281 | 261 | 285 | 255 | 257 | 277 | 253 | 1869 |
| N-pretest | 304 | 304 | 304 | 304 | 304 | 304 | 304 | 2128 |
| N-posttest | 304 | 304 | 304 | 304 | 304 | 304 | 304 | 2128 |
| % pretest | 61.18 | 59.21 | 55.92 | 53.62 | 57.89 | 61.51 | 57.57 | 58.13 |
| % posttest | 92.43 | 85.86 | 93.75 | 83.88 | 84.54 | 91.12 | 83.22 | 87.83 |
| Pretest Mean | 2.45 | 2.37 | 2.24 | 2.14 | 2.32 | 2.46 | 2.30 | 16.28 |
| Posttest Mean | 3.70 | 3.43 | 3.75 | 3.36 | 3.38 | 3.64 | 3.33 | 24.59 |
| Max-pretest | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 21.00 |
| Max-posttest | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 28.00 |
| Min-pretest | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 11.00 |
| Min-posttest | 3.00 | 2.00 | 3.00 | 2.00 | 2.00 | 3.00 | 2.00 | 20.00 |
| Mode-pretest | 2.00 | 3.00 | 2.00 | 2.00 | 3.00 | 3.00 | 2.00 | 16.00 |
| Mode-posttest | 4.00 | 3.00 | 4.00 | 3.00 | 3.00 | 4.00 | 3.00 | 24.00 |
| Med-pretest | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 3.00 | 2.00 | 16.00 |
| Med-posttest | 4.00 | 3.00 | 4.00 | 3.00 | 3.00 | 4.00 | 3.00 | 24.50 |
| SD-pretest | 0.64 | 0.69 | 0.73 | 0.83 | 0.77 | 0.68 | 0.65 | 2.19 |
| SD-posttest | 0.46 | 0.57 | 0.44 | 0.58 | 0.61 | 0.48 | 0.57 | 2.03 |

The results of the descriptive statistical analysis on the posttest with seven indicators of children's social skills after the implementation of the Persis Mitra Serasi AUD model with the traditional game called *Egrang/Ma'jeka* showed that: (1) the minimum score of the posttest was 19, while the maximum score was 28. This means that children were able to perform the indicators properly without assistance, (2) the mode or the score that appeared the most often was 25 between the minimum score of 19 and the maximum score of 28, and (3) the median was 25. This signifies that in general children could perform the indicators properly. It can be summarized that children after being stimulated with the learning model that had been developed could perform the indicators of social skills properly. Refer to Table 3 below.

Table 3. The Results of the Descriptive Statistic Analysis on the Pretest and Posttest with the Persis Mitra Serasi AUD model and the Traditional Game *Egrang/Ma'jeka*.

| Description | Indicators of Social Skills | | | | | | | Σ |
|---------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| n-pretest | 186 | 180 | 170 | 163 | 176 | 187 | 175 | 1237 |
| n-posttest | 280 | 262 | 280 | 262 | 255 | 279 | 253 | 1871 |
| N-pretest | 304 | 304 | 304 | 304 | 304 | 304 | 304 | 2128 |
| N-posttest | 304 | 304 | 304 | 304 | 304 | 304 | 304 | 2128 |
| % pretest | 61.18 | 59.21 | 55.92 | 53.62 | 57.89 | 61.51 | 57.57 | 58.13 |
| % posttest | 92.11 | 86.18 | 92.11 | 86.18 | 83.88 | 91.78 | 83.22 | 87.92 |
| Pretest Mean | 2.45 | 2.37 | 2.24 | 2.14 | 2.32 | 2.46 | 2.30 | 16.28 |
| Posttest Mean | 3.68 | 3.45 | 3.68 | 3.45 | 3.36 | 3.67 | 3.33 | 24.62 |
| Max-pretest | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 21.00 |
| Max-posttest | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 28.00 |
| Min-pretest | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 11.00 |
| Min-posttest | 3.00 | 2.00 | 3.00 | 2.00 | 2.00 | 3.00 | 2.00 | 19.00 |
| Mode-pretest | 2.00 | 3.00 | 2.00 | 2.00 | 3.00 | 3.00 | 2.00 | 16.00 |
| Mode-posttest | 4.00 | 3.00 | 4.00 | 4.00 | 3.00 | 4.00 | 3.00 | 25.00 |
| Med-pretest | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 3.00 | 2.00 | 16.00 |
| Med-posttest | 4.00 | 3.00 | 4.00 | 3.50 | 3.00 | 4.00 | 3.00 | 25.00 |
| SD-pretest | 0.64 | 0.69 | 0.73 | 0.83 | 0.77 | 0.68 | 0.65 | 2.19 |
| SD-posttest | 0.47 | 0.55 | 0.47 | 0.60 | 0.60 | 0.47 | 0.62 | 1.98 |

The results of the descriptive statistical analysis on the posttest with seven indicators of children's social skills after the implementation of the Persis Mitra Serasi AUD model with the traditional game called *Bola Bekel/Ma'gurenceng* showed that: (1) the minimum score of the posttest was 20, while the maximum score was 28. This indicates that children were able to perform the indicators properly without assistance, (2) the mode or the score that appeared the most often was 25 between the minimum score of 20 and the maximum score of 28, and (3) the median was 25. This signifies that in general children could perform the indicators properly. Thus, the conclusion is that after being stimulated with the learning model that had been developed, children could perform the indicators of social skills properly. Refer to Table 4 below

Table 4. The Results of the Descriptive Statistic Analysis on the Pretest and Posttest with the Persis Mitra Serasi AUD model (Traditional Game *Bola Bekel/Ma'gurenceng*)

| Description | Indicators of Social Skills | | | | | | | Σ |
|---------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| n-pretest | 186 | 180 | 170 | 163 | 176 | 187 | 175 | 1237 |
| n-posttest | 275 | 263 | 277 | 257 | 260 | 278 | 254 | 1864 |
| N-pretest | 304 | 304 | 304 | 304 | 304 | 304 | 304 | 2128 |
| N-posttest | 304 | 304 | 304 | 304 | 304 | 304 | 304 | 2128 |
| % pretest | 61.18 | 59.21 | 55.92 | 53.62 | 57.89 | 61.51 | 57.57 | 58.13 |
| % posttest | 90.46 | 86.51 | 91.12 | 84.54 | 85.53 | 91.45 | 83.55 | 87.59 |
| Pretest Mean | 2.45 | 2.37 | 2.24 | 2.14 | 2.32 | 2.46 | 2.30 | 16.28 |
| Posttest Mean | 3.62 | 3.46 | 3.64 | 3.38 | 3.42 | 3.66 | 3.34 | 24.53 |
| Max-pretest | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 21.00 |
| Max-posttest | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 28.00 |
| Min-pretest | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 11.00 |
| Min-posttest | 3.00 | 2.00 | 3.00 | 2.00 | 2.00 | 2.00 | 2.00 | 20.00 |
| Mode-pretest | 2.00 | 3.00 | 2.00 | 2.00 | 3.00 | 3.00 | 2.00 | 16.00 |
| Mode-posttest | 4.00 | 4.00 | 4.00 | 3.00 | 3.00 | 4.00 | 3.00 | 25.00 |
| Med-pretest | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 3.00 | 2.00 | 16.00 |
| Med-posttest | 4.00 | 4.00 | 4.00 | 3.00 | 3.00 | 4.00 | 3.00 | 25.00 |
| SD-pretest | 0.64 | 0.69 | 0.73 | 0.83 | 0.77 | 0.68 | 0.65 | 2.19 |
| SD-posttest | 0.49 | 0.62 | 0.48 | 0.59 | 0.55 | 0.50 | 0.58 | 2.05 |

The descriptive statistical analysis on the pretest and posttest of children's social skills demonstrated that the score (sum) and the mean of each of the posttest indicators were higher than the score and the mean of each of the pretest indicators. The total score of all the indicators of children's social skills was also higher. These results suggest that the Persis Mitra Serasi AUD model that had been developed and implemented has effects on the social skills of the children aged 5-6 years (Group B) who played the traditional games *Engklek* (P1), *Congklak* (P2), and *Bola Bekel* (P4). The results of the descriptive statistical analysis on the pretest and posttest are presented in the table below.

Table 5. The Descriptive Statistic Analysis on the Pretest and Posttest of Social Skills

| Description | Indicators of Social Skills | | | |
|------------------------|-----------------------------|---------|---------|---------|
| | P1 | P2 | P3 | P4 |
| Pretest Mean | 16.28 | 16.28 | 16.28 | 16.28 |
| Posttest Mean | 24.71 | 24.59 | 24.62 | 24.53 |
| Med Pretest | 16.00 | 16.00 | 16.00 | 16.00 |
| Med Posttest | 25.00 | 24.50 | 25.00 | 25.00 |
| Mode-pretest | 16.00 | 16.00 | 16.00 | 16.00 |
| Mode-posttest | 23.00 | 24.00 | 25.00 | 25.00 |
| Standard Dev. Pretest | 2.19 | 2.19 | 2.19 | 2.19 |
| Standard Dev. Posttest | 2.08 | 2.03 | 1.98 | 2.05 |
| Min Pretest | 11.00 | 11.00 | 11.00 | 11.00 |
| Min Posttest | 19.00 | 20.00 | 19.00 | 20.00 |
| Max Pretest | 21.00 | 21.00 | 21.00 | 21.00 |
| Max Posttest | 28.00 | 28.00 | 28.00 | 28.00 |
| Sum Pretest | 1237.00 | 1237.00 | 1237.00 | 1237.00 |
| Sum Posttest | 1878.00 | 1869.00 | 1871.00 | 1864.00 |
| Count | 2128.00 | 2128.00 | 2128.00 | 2128.00 |

Results of the t-Test of the Pretest and Posttest

The effectiveness of the Persis Mitra Serasi AUD model that had been developed was analyzed using the difference test. The analysis was performed on the four traditional games: *Engklek* (P1), *Congklak* (P2), *Egrang* (P3), and *Bola Bekel* (P4). and on all the aspects of the early childhood social skills. Based on the results of the statistic analysis on the application of traditional game *Engklek* (P1) and the children's social skills, the t-count value was 28.865 with the p value=0.000. These statistic results show that there was a significant

difference between the score of social skills in the pretest and the posttest ($p < 0.05$). The significant difference suggests that the application of the traditional game-based learning model significantly stimulates early childhood social skills. Refer to Table 6 below.

Table 6. The t-Test of the Pretest and Posttest on the Accomplishments of Social Skills using the Persis Mitra Serasi AUD Learning Model (Traditional Game *Engklek*)

| | | Paired Sample Test | | | | | t | Sig. (2-tailed) |
|--------|---------------------|--------------------|----------------|-----------------|---|---------|--------|-----------------|
| | | Paired Differences | | | | | | |
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | |
| | | | | | | Lower | Upper | |
| Pair 1 | Posttest P1-Pretest | 8.43421 | 2.54734 | .29220 | 7.85212 | 9.01630 | 28.865 | .000 |

Based on the results of the statistic analysis on the application of traditional game *Congklak* (P2) and the children’s social skills, the t-count value was 26.858 with the p value=0.000. These statistic results show that there was a significant difference between the scores of social skills in the pretest and the posttest ($p < 0.05$). The significant difference suggests that the application of the traditional game-based learning model significantly stimulates children’s social skills in early years. Refer to Table 7 below.

Table 7. The t-Test of the Pretest and Posttest on the Accomplishments of Social Skills using the Persis Mitra Serasi AUD Learning Model (Traditional Game *Congklak*)

| | | Paired Sample Test | | | | | t | Sig. (2-tailed) |
|--------|---------------------|--------------------|----------------|-----------------|---|---------|--------|-----------------|
| | | Paired Differences | | | | | | |
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | |
| | | | | | | Lower | Upper | |
| Pair 1 | Posttest P1-Pretest | 8.31579 | 2.69919 | .30962 | 7.69900 | 8.93258 | 26.858 | .000 |

The results of the statistical analysis on the application of traditional game *Egrang* (P3) on the children’s social skills, the t-count value was 24.532 with the p value=0.000. These statistic results show that there was a significant difference between the scores of social skills in the pretest and the posttest ($p < 0.05$). The significant difference suggests that the application of the traditional game-based learning model significantly stimulates children’s social skills in early childhood. Refer to Table 8 below.

Table 8. The t-Test of the Pretest and Posttest on the Accomplishments of Social Skills using the Persis Mitra Serasi AUD Learning Model (Traditional Game *Egrang*)

| | | Paired Sample Test | | | | | t | Sig. (2-tailed) |
|--------|---------------------|--------------------|----------------|-----------------|---|---------|--------|-----------------|
| | | Paired Differences | | | | | | |
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | |
| | | | | | | Lower | Upper | |
| Pair 1 | Posttest P1-Pretest | 8.34211 | 2.96447 | .34005 | 7.66470 | 9.01952 | 24.532 | .000 |

Based on results of the statistical analysis on the application of traditional game *Bola Bekel* (P4) on the children’s social skills, the t-count value was 27.738 with the p value=0.000. These statistic results show that there was a significant difference between the scores of social skills in the pretest and the posttest ($p < 0.05$). These results also suggest that the application of the traditional game-based learning model significantly stimulates children’s social skills in early childhood. Refer to Table 9 below.

Table 9. The t-Test of the Pretest and Posttest on the Accomplishments of Social Skills using the Persis Mitra Serasi AUD Learning Model (Traditional Game *Bola Bekel*)

| | | Paired Differences | | | | | t | Sig. (2-tailed) |
|--------|---------------------|--------------------|----------------|-----------------|---|---------|--------|-----------------|
| | | Paired Differences | | | | | | |
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | |
| | | | | | | Lower | Upper | |
| Pair 1 | Posttest P1-Pretest | 8.25000 | 2.59294 | .29743 | 7.65749 | 8.84251 | 27.738 | .000 |

IV. Discussion

The efficacy test on the Persis Mitra Serasi AUD learning model was conducted in four kindergartens (TK) in Makassar, namely: *TK Handayani*, *TK Dua Putra*, *TK Yafqaeda*, and *PAUD Terpadu Teratai*. The analysis on the children's social skills and the application of the Persis Mitra Serasi AUD learning model combined with the traditional games including *Engklek* (P1), *Congklak* (P2), *Egrang* (P3) and *Bola Bekel* (P4) generally indicates that social skills before and after being stimulated by the learning model that had been developed are different. The pretest score was 1237,00 with the mean of 16.26, while the posttest scores for P1, P2, P3, and P4 were 1878.00; 1869.00; 1871.00; and 1864;00 respectively with the mean scores of 24.71; 24.59; 24.64; and 24.53 respectively. There was a difference in the average score between the pretest and posttest: 8.45; 8.33; 8.38; and 8.27. The difference in the average scores between the pretest and posttest indicates that the children at the age of 5-6 years have better accomplishments of social skills after being stimulated with the Persis Mitra Serasi model that had been developed.

The results of the current study showed that there was a significant difference between the pretest and posttest scores on the stimulation of children's social skills in their early years with the learning model based on traditional games, such as *Engklek* (P1), *Congklak* (P2), *Egrang* (P3), and *Bola Bekel* (P4) with the significance value (2tailed) of which each value was $p=0.0000 < \alpha=0.05$. The results of the statistical analysis showed that the significance difference before and after the treatment was very high. It can be concluded that the learning model that had been developed is effective in stimulating children's social skills.

The explanation above suggests that it is necessary for teachers to apply the proper treatment for stimulating children's social skills through traditional games developed in accordance with the 5-6-year-old children's characteristics. Besides, traditional games, if done cooperatively, help children easily make interactions, socialize, and communicate with their friends. This is because cooperative play encourages cooperation, interaction, and communication between children. Cooperative play involves children playing in groups and making social interactions. It allows children to learn about respecting and acknowledging the existence of their playmates. It can also help children grow solidarity and empathy for other people. This is in line with the argument from [13] that cooperative play is characterized by the cooperation between pairs or groups of children in which there is a division of tasks and roles for all the children involved in the play in order to achieve the same goal.

One of the studies on the impacts of traditional games on social skills was conducted by [14] who found that: (1) the social skills of the groups of children who played traditional games cooperatively were better than those of the group of children who played traditional games in parallel; (2) the social skills of the groups of children who had the field-dependent (FD) cognitive style were better than those of the groups of children who had the field-independent (FI) cognitive style; (3) the interaction between types of games and cognitive style influenced social skills; (4) the social skills of the groups of children who had the FD cognitive style and played traditional games cooperatively were better than those of the groups of children who played traditional games in parallel.

This is aligned with the study conducted by [15] found that the FD children were more likely to be involved in activities with other people and concrete objects, while the FI children were more likely to be involved in environmental restructuring. For instance, the FD children move with other people and use tools to play. These are the characteristics of children with the FD style. On the one hand, children with FD style like to get involved with others and to learn concrete and structured information. On the other hand, children with FI style are actively involved in brainstorming ideas and initiating the games. Moreover, when the FI children are involved in social activities, they initiate the roles or define the roles. FI can solve problems, reorganize in different contexts, and be independent of an authority. However, some FI children exhibit several FD characteristics, such as their movement in developing their social roles and communicating with others in a manipulative play.

The research conducted by [16] showed that there was a significant difference between dependent variables, which are "social skills", emphasizing the types of play (parallel, symbolic, social, therapeutic) at the significance level $\alpha=0.05$ and that children preferred therapeutic play, than social, symbolic, and therapeutic play. There was a significant interaction between the independent variables (groups and types of play) and the dependent variables, which are "social skills", at the significance level $\alpha=0.05$ and the children who enjoyed therapeutic play had better social skills than children who enjoyed other types of play.

It can be determined that there was a significant difference between dependent variables: social skills and intelligence with the emphasis on the groups of children in kindergartens, preschools, and schools at the significance level $\alpha=0.05$ and the preschoolers (with the average score 59.82) had better social skills than the kindergarteners and schoolchildren. Also, the kindergarteners (with the average score 118.2) had higher intelligence than the preschoolers and schoolchildren. Thus, the results of the current study can give an overview on the importance of the development of traditional games-based learning models in stimulating early childhood social skills.

V. Conclusion

Playing traditional game was proven being able to increase the social skills of children. By playing the game with friends, it can build relationships and making interactions each other. It is the main different between traditional game and some modern games. Traditional games can develop and train children's social skills, including socializing, working together with friends, empathizing with others, being responsible for the given tasks, as well as competing healthily, honestly and supportively

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