Effectiveness of Action Bible Game Board Media to Introduce Bible Characters to Children

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ABSTRACT

This study aims to determine the Action Bible Game Board media's effectiveness in introducing Old Testament Bible characters to children aged 9 – 12 years old at the Pentecostal Church in Indonesia (GPdI) Ungaran and Indonesian Bethel Church (GBI) Kana Ungaran. The author uses experimental quantitative research to find the effect of specific treatments on others under controlled conditions. The results show a significant difference between the pre-test and post-test for the experimental group. A significant difference was found between the control and the experimental groups. Sunday school children taught using the Action Bible Game Board media had better recognition than those taught using ordinary media.

Keywords: Game Board, Learning Media, Bible Game.

1. INTRODUCTION

Nowadays, education and ministry to children are vital and greatly needed for everyone since children are the next generation relied on in the future to continue the nation's ideals not yet realized presently. Early childhood education becomes an essential part of life since it is the initial stage to nurture good understanding to become suitable successors of the nation [1], [2]. The purpose of Christian religious education for children is to know God as the Creator and King of the Universe. However

Upton stated that if children were given a symbolic game, they could experience improvement in their cognitive development and train their competencies & skills in a relaxing and fun environment [6]. Playing is one of the beneficial activities for children, especially in terms of their cognitive development. Children will obtain new cognitive and psychomotor knowledge by enjoying games, namely in speaking [7]–[9]. Therefore, the researchers chose children aged 9-12 years old interested in games to support these trial activities. Hurlock described that children develop various social skills during playtime to enjoy group membership in children's communities [10]. This signifies that playtime also influences children's development process. Besides, children can also explore their limits and enjoy their things. The researchers chose 9-12-year-olds in the trial since children are interested in games in this period. Children this age are interested in recognizing characters [10], [11]. It supports them that media as tools to help children socialize and learn are needed.

The provision of learning material supports the activities in Sunday school ministry, and learning media integrated to the former, and learning model suited with children's characteristics [12], [13]. Various institutions have sought learning media to answer learning media needs for Sunday schools. One of which is the Anak Terang Indonesia Foundation. In responding to the needs of Sunday school ministries, Anak Terang Indonesia Foundation created Action Bible Game Board for children. The only problem is that this media has never been tested scientifically. Since this media has never undergone such testing, it becomes necessary to assess its effectiveness, determine whether the media is suitable for mass production, and ensure product quality as the product will obtain guidelines as its proof of feasibility.

Based on the background, this research wants to answer the problem of whether action Bible Game Board as a learning media is effective to introduce Old Testament Bible characters on children aged 9 – 12 years old in Pentecostal Church in Indonesia of Ungaran (GPdI Ungaran) and Kana Indonesian Bethel Church of Ungaran (GBI Kana Ungaran).

2. METHOD

This research is a quantitative one and uses the experiment method. The experiment method is used to find the influence of a particular treatment on others in a controlled condition [14]. This research used a non-

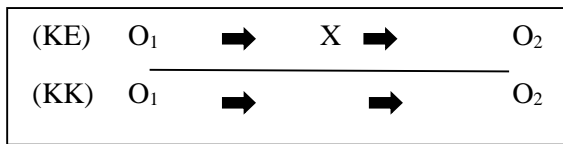randomized control group pre-test-post-test design illustrated as follows.

| (KE) | O_1 | ➡ | X | ➡ | O_2 |
| (KK) | O_1 | ➡ | | ➡ | O_2 |

Figure 1. Non-randomized control group pre-test-post-test design [14].

Description:
KE = Experiment group
KK = Control group
O_1 = Pre-test
O_2 = Post-test
X = VB treatment (Action Bible Game Board)

Data was collected by holding pre and post-tests in two groups: A and B. Group A was taught using the conventional method and ordinary learning media while Group B was taught using Action Bible Game Board.

This research was conducted in the Sunday School of Pentecostal Church in Indonesia (GPdI) Ungaran and Indonesian Bethel Church (GBI) Kana Ungaran on January-March 2021. The subjects in this experiment were children aged 9-12 years old. This research's design had two asymmetrical groups regarding proactive history since no randomization was conducted but still employed groups to control maturation. The implementation of research design using pre and post-test was an implementation of constants control to the proactive history. The pre and post-test consisted of two similar tests to enable result comparison. A pre-test was used to understand the subjects' initial knowledge, while a post-test aimed to observe whether significant differences occurred in the research.

Internal and external validity control was used to observe the effectiveness of treatment administration. Internal validity control covered history, maturation, testing, regression, and instrument. Besides controlling internal validity threat through two-group division (control and experiment groups), the researchers also exercised control over research subjects, and treatment was administered four times, and the subjects' presence was consistent during treatment. Instruments used in the pre-and post-test were different but equal and did not involve subjects with extreme scores. External validity control was exercised by employing research subjects who were students of Sunday School (Pentecostal Church in Indonesia (GPdI) Ungaran and Indonesian Bethel Church (GBI) Kana Ungaran) with relative similarity of age, the similarity of the period of treatment administration, and similarity of teaching ability and background of teachers. The material in this experiment was knowledge of Bible figures. The data were then analyzed by using independent samples and paired-samples T-tests.

3. RESULT AND DISCUSSION

Based on the results of data analysis, it was found that the lowest and highest empirical pre-test scores on recognition of Old Testament characters of subjects taught by using conventional media were 24 and 68, respectively. Other statistical results were obtained, such as the average score of 52.40 and standard deviation of 14.416. There were six students (60%) within this group showing above-average results, while the others (four students; 40%) showed below-average results. This signifies an adequate recognition of Old Testament Bible characters by Sunday School students before being taught by ordinary media since more than 50% of the subjects obtained average and above-average scores.

Meanwhile, it was also found that the lowest and highest empirical post-test scores on recognition of Old Testament characters of subjects taught by using conventional media were 56 and 92, respectively. This generated an average score of 79.00 and a standard deviation of 9.626. Five students (50%) within this group showed above-average results while the others (50%) showed below-average results. This signifies an adequately good recognition of Old Testament Bible characters by Sunday School students after being taught by ordinary media since more than 50% of the subjects obtained average and above-average scores.

Based on the results of data analysis, it was found that the lowest and highest empirical pre-test scores on recognition of Old Testament characters of subjects taught by using the Action Bible Game Board were 34 and 82, respectively. Other statistical results were obtained, such as the average score of 55.00 and a standard deviation of 13.573. Four students (40%) within this group showed average and above-average results, while the others (six students; 60%) showed below-average results. This signifies a less than good recognition of Old Testament Bible characters by Sunday School students before being taught by ordinary media since less than 50% of the subjects obtained average and above-average scores.

Meanwhile, it was also found that the lowest and highest empirical post-test scores on recognition of Old Testament characters of subjects taught by using the Action Bible Game Board were 84 and 98, respectively. This generated an average score of 93.80 and a standard deviation of 4.662. Five students (50%) within this group showed average and above-average results, while the others (five students; 50%) showed below-average results. This signifies an adequately good recognition of Old Testament Bible characters by Sunday School students after being taught by ordinary media since more than 50% of the subjects obtained average and above-average scores.

After conducting prerequisite testing and assuming that the data were normally distributed and homogenous invariance was fulfilled, hypothesis testing was conducted using independent samples and paired-

samples T-tests. To state whether a difference had occurred or not, the testing was conducted by comparing the p-value coefficient with a significance level of α = 0.05. If the p-value was more than 0.05, then H_0 was accepted, meaning no significant difference was found. Otherwise, if the p-value was less than 0.05, then H0 was rejected, meaning a significant difference was found. The testing results are as follows.

3.1. Pre and post-test recognition of Old Testament Bible characters

Based on the results of data analysis by using paired-samples T-test, a coefficient of 12.290 with a p-value of 0.000 was found. Since the p-value was less than 0.05, a significant difference between the two compared groups was found. It is concluded that there was a difference in recognizing Old Testament Bible characters before (pre-test) and after (post-test) being taught. Both groups' average pre-and post-test scores were 53.70 and 86.40, respectively, proving that Sunday School students had better knowledge of Old Testament characters than before after being taught.

3.2. Pre-test results of control and experiment groups

Based on the results of data analysis by using independent-samples T-test, a coefficient of 0.415 with a p-value of 0.683 was found. Since the p-value was more than 0.05, no significant difference between the two compared groups was found. It is concluded that there was no difference in pre-test recognition of Old Testament Bible characters between control and experiment groups, meaning that both groups had a rather similar understanding before learning treatment. The average pre-test scores of control and experiment groups were 52.40 and 55.00, respectively, an insignificant difference. It shows that both groups had similar knowledge of Old Testament characters before being taught.

3.3. Post-test results of control and experiment groups

Based on the results of data analysis by using independent-samples T-test, a coefficient of 4.376 with a p-value of 0.000 was found. Since the p-value was less than 0.05, this means that a significant difference between the two compared groups was found. It is concluded that there was a difference in post-test recognition of Old Testament Bible characters between control and experiment groups. The average post-test scores of control and experiment groups were 79.00 and 93.80, respectively, an extremely significant difference. It proves that Action Bible Game Board brought better knowledge of Old Testament characters for Sunday School students than ordinary media.

3.3. Pre and post-test results of a control group

Based on the results of data analysis by using paired-samples T-test, a coefficient of 8.875 with a p-value of 0.000 was found. Since the p-value was less than 0.05, a significant difference between the two compared groups was found. It is concluded that there was a difference in recognition of Old Testament Bible characters before (pre-test) and after (post-test) being taught using ordinary media. The average pre and post-test scores were 52.40 and 79.00, respectively, proving that after being taught by using ordinary media, Sunday School students in the control group had better knowledge of Old Testament characters than before being taught.

3.5. Pre and post-test results of experiment group

Based on the results of data analysis by using paired-samples T-test, a coefficient of 10.913 with a p-value of 0.000 was found. Since the p-value was less than 0.05, a significant difference between the two compared groups was found. It is concluded that there was a difference in recognizing Old Testament Bible characters before (pre-test) and after (post-test) being taught by using Action Bible Game Board media. The average pre and post-test scores were 55.00 and 93.80, respectively, proving that after being taught by using the game board, Sunday School students in the experiment group had better knowledge of Old Testament characters than before being taught.

4. DISCUSSION

Results show that the Action Bible Game Board was considered effective in introducing Old Testament Bible characters to Sunday School students of Pentecostal Church in Indonesia (GPdI) Ungaran and Indonesian Bethel Church (GBI) Kana Ungaran, proven by the differences in learning results in the experimental higher than that of the control group. This was caused by the preference of children aged 9-12 years old to games as learning media to the conventional learning media. Using game boards as learning media creates a new culture, combining learning, gaming, and media and creating interest in children [15]. Therefore, the rising interest created will help children in recognizing Bible figures. This supports the previous results, which show that children learning Bible characters using the game board had better results than ordinary media.

The results are also supported by Sanaky, stating that media are tools that function and are used to become intermediaries in delivering learning messages [16]. According to Sudjana and Rivai, the learning activity can be held more effectively [17]. This is also stated by Darmawan, who remarked that learning media are helpers in the learning process to convey learning material to improve students' learning results [18]. Abdulhak and Darmawan confirmed this, describing that media need to be employed to clarify message delivery to

become more efficacious [19]. The research shows that Action Bible Game Board could be employed as learning media to help children recognize Old Testament Bible characters since it has attractiveness, ability to become message intermediary, and help clarify message being delivered.

5. CONCLUSION

Based on the data analysis, it is concluded that: 1) a significant difference between pre- and post-teaching recognition of Old Testament Bible characters was found in both control and experiment groups (pre- and post-test), in which after being taught Old Testament Bible characters, Sunday school students had better knowledge than before being taught; 2) no significant difference between control and experiment groups during pre-test, in which before being taught or introduced to Old Testament Bible characters, the two groups had similar understanding or recognition; 3) a significant difference on recognition of Old Testament Bible characters was found between the Sunday school student group taught by using Action Bible Game Board and that taught by using ordinary ones, in which those taught by using Action Bible Game Board had better recognition than those taught by using ordinary ones, which proved that the use of Action Bible Game Board were more effective in providing experience of recognizing Old Testament Bible characters to Sunday school students; 4) a difference between pre- and post-test recognition of Old Testament Bible characters by the group using ordinary learning media was found, in which after being taught by using the media, Sunday school students had better recognition than before being taught; 5) a significant difference between pre- and post-test recognition of Old Testament Bible characters by the group using Action Bible Game Board, in which after being taught by using the media, Sunday school students had better recognition than before being taught.

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