Implementation of Advocacy Learning Model as A Predictor of Student’s Learning Outcomes

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ABSTRACT
This research was aimed to: (1) find the level of student learning outcomes before and after the application of intervention or treatment; (2) find out whether or not the advocacy learning model provides a significant increase in student learning outcomes; (3) find out whether or not the model of advocacy learning gave a significant mean difference in student learning outcomes; and (4) investigate effect size of the advocacy learning model in improving student learning outcomes. A Quasi-experiment by using a pretest-posttest of non-equivalent control group design is used in this research. The research samples are derived from two homogeneous groups of 40 students and are divided into the experimental group (20 students) and the control group (20 students). The research instruments used are tests (multiple choice). The Research findings showed that: (1) the learning outcomes in the experiment group are in a very high category where it is much better than the control group; (2) statistically, the advocacy learning model gave significant improvement, and significant mean difference on learning outcomes after being taught using advocacy learning model; and (3) the model of advocacy learning gave an effective contribution to the improvement of student learning outcomes with an effect size of 76%.

Keywords: advocacy learning model, learning outcomes, Christian religious education

1. INTRODUCTION
The process of learning and teaching is a series of actions between teachers and students based on mutual relations that take place in active educative situations in order to achieve comprehensive learning objectives. Aspects of knowledge, attitudes and skills are the realm of the scope. This ideal goal is in accordance with the intent of the study described by Slameto that learning is an effort made a person to change new behaviour and remain in its entirety [1].

In students, learning can be experienced through a series of complex behaviours, and individualized in the sense of the learning experience obtained from the interaction between individuals and the environment as a learning resource. The success of the learning process does not depend solely on the teacher but also on the self-readiness of each individual in utilizing the full potential, both from within and outside themselves.

The culmination of this learning process can be seen through the results achieved. Learning outcomes can be influenced by manipulation of the learning process to bring active participation of students for fun and effective learning so that the time on task is high [2]. Research conducted by Purwaningsih shows that activity has a positive influence on learning outcomes [3]. Similarly, Fakhrurrazi placed the students’ active involvement factor in his research as the first step in the effort to realize effective learning conditions [4]. This means that individual students’ active participation in learning becomes a benchmark to achieve maximum results in learning while learning without bringing active participation from students will show the opposite state.

Research findings related to Christian Religious Education (PAK) in 2 Senior high school (SMA) of eleventh grade (Public School), Fatuleu showed less satisfactory results. The number of students who achieved minimum criteria of mastery learning (KKM) only reached 35%. The use of conventional methods is found as a significant contributor factor that affects the low achievement of learning outcomes. The descriptions of these learning outcomes can be seen in table.1:

Manipulation of the learning process can be done through the proper selection of learning models. The term
learning model has a broader meaning of strategy, method or procedure. The learning model is defined as a conceptual framework describing systematic procedures in organizing learning experiences to achieve specific learning objectives and has functioned as a guideline for learning designers and teachers in planning teaching and learning activities [5]. The Learning model has four unique features that are not owned by a strategy, method or procedure. These traits are (1) logical theorists compiled by the creators or developers; (2) the foundation of thinking about what and how students learn (the learning objective to be accomplished); (3) the necessary teaching behaviour, in order for the model to be executed successfully; and (4) the learning environment necessary for the purpose of the learning to be achieved. The learning models that will be used include teaching objectives, stages in learning activities, learning environment, and classroom management [6]. The selection of appropriate learning models is intended to implement a learning activity that is genuinely an activity that has a purpose, and is structured systematically and provides direction for teachers to teach.

Table 1 Percentage of KKM Learning Outcomes PAK

<table>
<thead>
<tr>
<th>Criteria of KKM</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage of KKM</th>
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<tbody>
<tr>
<td>0 – 75</td>
<td>≤ KKM</td>
<td>26</td>
<td>65%</td>
</tr>
<tr>
<td>76 – 100</td>
<td>&gt; KKM</td>
<td>14</td>
<td>35%</td>
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</table>

One of the learning models that can be used to optimize student learning participation and activity in the classroom is a model of advocacy learning. According to Hamalik, the application of advocacy model is an alternative to the classroom learning approach that provides students with opportunities to discuss social issues and personal problems through direct involvement and a role in the process of the team’s debate. Each team consists of several students. The disputed topic is according to the student’s interests, needs and in accordance with the material presented at the time. Through this model, students will be encouraged to concentrate on the topics being discussed and strive to maintain their opinions and views on the topic [7]. At the same time, students use the skills of researching, analyzing, and speaking and hearing opinions in the debate [8].

The instructional approach to advocacy learning can develop skills to use logic, solve problems, think critically, and develop verbal and written communication. Besides, application of advocacy learning models will also effectively enrich the source of inter-personal communication, increasing confidence to brainstorm, and conducting a critical analysis of emerging topics and ideas in the debate [7].

Implementation of the advocacy learning model is seen in line with the level of students thinking skill grade XI SMA. In his explanation, Bujuri states that at this age, students have been in a formal operational phase. This phase is the final stage in cognitive development, according to Piaget. At this stage, the child can think flexibly and effectively, and be able to deal with complex issues. Students have been able to critically thinking when faced with problems, and students will understand the cause and effect first, and then arrange the steps to complete it. The child’s memory is increasingly strong and can think strategically and be able to reconstruct the material. This ability is called a systematic strategic thinking ability [9]. In this phase, student-centered learning can be applied. The Advocacy learning model is a learner-centered learning model that is also called student-centered advocacy learning.

Research conducted using a model of advocacy learning can increase the attitude of students’ responsibilities [10]; Students’ social skills [11]; Understanding of students’ social issues [8]; Activities and learning Achievements [12, 13]; Student learning Outcomes [14, 15, 16, 17, 18, 19, 20, 21] The results of the research conducted by Tandiling found that learning with an advocacy approach with the presentation of open-ended problems gave a consistent influence compared to the influence of conventional learning [22].

The application of the advocacy learning model in the study was conducted on the grade XI Christian religious education subject, with the consideration that the material contained in this class, generally contains issues among adolescents who are interesting to criticize through Argumentative learning models, compared to the application of conventional methods of learning. Therefore, the research question in this study can be formulated as follows: (1) what are the learning outcomes level of students before and after intervention applied; (2) does the use of an advocacy learning model provide a significant improvement towards student learning outcomes; (3) is the use of an advocating learner model giving a significant mean difference to student learning outcomes; and (4) does the implementation of the advocacy learning model give effect size in improving student learning outcomes in the experimental group?

Based on the research question, the research objectives are: (1) find the level of student learning outcomes before and after the application of intervention; (2) find out whether or not the model of advocacy learning gave a significant improvement on student learning outcomes; (3) find out whether or not the model of advocacy learning gave a significant mean difference in student learning outcomes; and (4) investigate effect size of the advocacy learning model in improving student learning outcomes in experimental groups.

The novelty of implementation of advocacy learning model is done to improve student learning outcomes in the realm of cognitive, namely in the aspect (C1) remember, (C2) understand, (C3) apply and (C4) analyze
based on Bloom theory [23]. Besides, previous research is more focused on the field of Islamic Education, IPS, and PKn, and has not found research in the field of Christian Religious Education. For this reason, this study was conducted in the field of Christian Religious Education (PAK). This template, modified in MS Word 2007 and saved as a “Word 97-2003 Document” for the PC, provides authors with most of the formatting specifications needed for preparing electronic versions of their papers.

All standard paper components have been specified for three reasons: (1) ease of use when formatting individual papers, (2) automatic compliance to electronic requirements that facilitate the concurrent or later production of electronic products, and (3) conformity of style throughout a conference proceeding. Margins, column widths, line spacing, and type styles are built-in; examples of the type styles are provided throughout this document and are identified in italic type, within parentheses, following the example. Some components, such as multi-leveled equations, graphics, and tables are not prescribed, although the various table text styles are provided. The formatter will need to create these components, incorporating the applicable criteria that follow.

2. METHOD

This research is quasi-experiment research using pretest-posttest nonequivalent control group design or comparison group design. The research participants are divided into two groups which are distinguished into the category of the experimental group and control group. The experimental group were given the implementation of the advocacy learning model, while the control group with conventional learning. The design patterns of this research can be seen in Table 2.

<table>
<thead>
<tr>
<th>Table 2 Factorial Design</th>
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<td>O1</td>
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<td>O3</td>
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This research population is 40 students consisting of two classes of grade XI MIPA 1 and 2 Senior high school (SMA) of eleventh grade (Public School). These samples are sample populations or saturated samples where all population members are used as samples. Grade XI MIPA 1 is determined as the control group (20 students) and grade XI MIPA 2 is determined as the experimental group (20 students). The determination of the experimental group and control group is based on the consideration of students’ academic ability. Students of grade XI MIPA 1 have the better academic ability of Grade XI MIPA 2. Therefore, the treatment is given to Grade XI MIPA 2 to get the impact of actual research.

Research data is obtained using a test instrument. Tests are used to measure student learning data of experimental classes and control classes before and after treatment and are designed in multiple-choice. The preparation of the test instruments of the students’ learning results is sourced from the assessment procedures in the class. Test instruments have passed through the testing phase, which includes expert examination, validation test, reliability test, difficulty level analysis of test instruments and different test analysis of instruments. This process needs to be done in order to avoid bias.

<table>
<thead>
<tr>
<th>Table 3 Distribution Item Test Instruments on Each Indicator</th>
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<tbody>
<tr>
<td>Basic Competencies</td>
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<tr>
<td>Recognizing God’s role in family life</td>
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<tr>
<td>Developing the behaviour of responsibility as a manifestation of confession to God’s role in family life</td>
</tr>
<tr>
<td>Understanding God’s role in family life</td>
</tr>
<tr>
<td>Testify of God’s role in the family</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

The instrument validity testing criterion is performed at a significance of 0.05., with N = 20 (df = 18), the rtable is 0.444. Of the 25 items of the instrument tested 20 items were declared valid with the lowest value 0.506 > 0.444 and the highest value 0.984 > 0.444. The reliability test results of 20 valid instruments obtain a reliability value of 0.770 and are in the high category. Difficulty level analysis of test instruments obtain a reliability value of 0.770 and are in the high category. Difficulty level analysis of test instruments shows 1 question is very easy, 4 questions are categorized easily, 11 questions in the medium category, 5 questions are categorized difficult, and 1 question is very difficult. Meanwhile, different test analysis of instruments shows a good category. Thus, these 20 questions can be used as instrumentation in this study, and have represented each aspect of each indicator can be seen in Table 3.
The steps for applying the advocacy learning model to the experiment class are as follows: first, the researcher explains the outline of the material to be studied, namely: “A strong family gives birth to a strong person”. Through such material, researchers expose family understanding, strong family examples and strong personal outlines; Secondly, researchers divide students into 4 groups with as many as 5 members of students taking into account the academic abilities of each student. Each group will work on assignments and make presentations with different materials related to the material discussed; Third, the results of the discussion were presented by each group, while the other groups functioned as opposition; and fourth, researchers give quizzes or questions to work on individually.

The data analyzed was taken from the test instrument, and then analyzed using descriptive statistics, the statistical tests Wilcoxon and Mann-Whitney, and Cohen’s d. Data were analyzed using Microsoft Excel 2007 software and SPSS 20 for Windows after conducting treatment or intervention.

3. RESULTS AND DISCUSSIONS

Answering the research question 1 (RQ1), a descriptive statistical analysis is used to see the mean score, standard deviation, frequency and percentage of student’ learning outcomes. This means determining students’ learning outcomes before and after the implementation of treatment. In the analysis of the descriptive statistical pre-test and post-test on the experimental group that received treatment with the application of the advocacy learning model showed significant improvement, the mean score was found pre-test and post-test on the experimental group is 66.80 and 85.45 with the standard deviation of 9.20 and 4.76. A category is high enough with 41-60 value interval obtained 7 (35%) students and high category with interval value 61-80 obtained 13 (65%) students from pre-test results. While the post-test results found students’ learning outcomes are in high and very high category with details 4 (20%) students are in the high category, and 16 (80%) students are in the very high category. While the results of a descriptive statistical analysis of the control group who did not receive treatment with the advocacy learning model did not indicate a significant increase. The mean score on pre-test is 69.95, with a standard deviation of 4.86. These results indicate that 1 (5%) student are enough category and 19 (95%) students were in the high category, and the post-test control group showed a not high increase in the post-test results of 72.90 and standard deviation of 5.96. Found 18 (90%) Students are in the high category, and only 2 (10%) students are in the very high category.

The data analysis in this study requires data to be distributed normally and homogeneous. Testing normality using the test of normality based on the Shapiro Wilk test. Distributed data is normal if higher than 0.05, otherwise if lower than 0.05 data is declared not distributed normally. The test result of the normality of Shapiro Wilk with significant value of pre-test and post-test in the experimental group were 0.121 and 0.048. Meanwhile, the test results of the normality of Shapiro Wilk with the significant value of pre-test and post-test in the control group were 0.012 and 0.174. The test results of Shapiro Wilk normality related to learning outcomes in the experimental group and the control group found not normal data distribution. Therefore, the analysis in this study will use non-parametric statistical tests. To view a test variant of the homogeneity of the learning outcomes in the experimental and control group, Levine statistics (F test) is used in this study. Based on the output, The significant value of pre-test and post-test in the experimental group was 0.009 < 0.05; The significance value of pre-test and post-test in the control group was 0.496 > 0.05; The significant value pre-test in the experimental group and control group at 0.015 < 0.05; and the significance value of post-test in the experimental group and control group was 0.321 > 0.05, so it can be concluded that the variant of the experimental group and control group is not equal or not homogeneous.

Two statistical analyses were used in this study, namely progressive analysis and analysis of differences. The Wilcoxon test is used to find out if there is an increase in student learning outcomes after being taught using an advocacy learning model, and the Mann-Whitney test is used to find out whether there is a significant mean difference in student’ learning outcomes after being taught using advocacy learning model.

Answering research question 2 (RQ2), the Wilcoxon test is used in this study where data is taken from pre-test and post-test student’ learning outcomes in each group, both the experimental group and control group. Significant improvements to pre-test and post-test can be found from the score of the mean obtained. Concerning the results of the progressive analysis of pre-test and post-test results of student learning in the experimental group, it was found that the mean score was 66.80 and 85.45 with standard deviation (9.208 and 4.762).

The Mean difference pre-test and post-test in the experimental group were -18.650 with standard deviation (7.659), and the value of the significance of the learning outcome is 0.000, which is lower than 0.05. The results of the progressive analysis of pre-test and post-test student’ learning outcomes in the control group, indicating that the mean score was 69.95 and 72.90 with standard deviation (4.860 and 5.963). The Mean difference pre-test and post-test in the control group were -2.950 with the standard deviation (4.946), and the value of the significance of the learning outcomes is a 0.011, which is lower than 0.05.
Answering the research question 3 (RQ3), the Mann-Whitney test is used in this study where data is taken from post-test student’ learning outcomes between the experimental group and the control group. By the results of the difference analysis post-test student’ learning outcomes between the experimental group and control group, found the sig. 2tailed was 0.000 (P < 0.05). Through consideration of Mann Whitney’s test results (difference analysis), it can be concluded that there is a significant mean difference on student’ learning outcomes after being taught with the use of an advocacy learning model where the z-value was -4.828 and the p-value was lower than 0.05 (0.000 < 0.05) can be seen in Table 4.

Table 3 Result of Wilcoxon Test and Mann-Whitney Test of Learning Outcomes in The Experimental Group and Control Group

<table>
<thead>
<tr>
<th>Strategic</th>
<th>Variable</th>
<th>Pre-Test</th>
<th>Post-Test</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Mean Exp.</td>
<td>Mean Cont.</td>
</tr>
<tr>
<td>ALM</td>
<td>LO</td>
<td>66.80</td>
<td>69.95</td>
</tr>
<tr>
<td>Mean difference pre and post-test Exp. Within</td>
<td>Mean difference pre and post-test Contr. Within</td>
<td>Z value post-test between Exp. and Control</td>
<td>The value of Sig.2-tailed Exp. within</td>
</tr>
<tr>
<td>-18.650</td>
<td>-2.950</td>
<td>-4.828</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Answering the research question 4 (RQ4), Cohen’s d is used to measure the effective contribution (effect size) of the treatment model of advocacy learning to improve scores on the experimental group. This contribution illustrates the implementation of an effective advocacy learning model for the improvement of student learning outcomes.

Implementation of advocacy learning model in improving learning outcomes, need to be followed up by measuring the effective contribution (effect size) of the treatment model of advocacy learning to increase scores on the experimental group. An effective contribution (effect size) indicates how far the effectiveness of the treatment has been applied. Interpret the Cohen’s d score, the range of scores used as follows: A small effect (0.1), A medium effect (0.5), and A large effect (0.8 +). Based on Cohen’s d analysis, the results were found d = 2.325 > 0.8 + (large effect size), and effect-size r = 0758 (76%). Thus, the effective contribution of the model of advocacy learning in increasing the student’ learning outcomes score in the experimental group was 76%. Cohen’s d is calculated according to the formula:

\[ d = \frac{(M_1 - M_2)}{SD_{pooled}} \]  \hspace{1cm} (1)

\[ SD_{pooled} = \sqrt{\left(\frac{SD_1^2 + SD_2^2}{2}\right)} \] \hspace{1cm} (2)

Information:
- \( M_1 \) = Mean of group 1
- \( M_2 \) = Mean of group 2
- \( SD_1 \) = Standard deviation of group 1
- \( SD_2 \) = Standard deviation of group 2
- \( SD_{pooled} \) = Pooled standard deviation

Results Formula:

\[ M_1 = 85.45, M_2 = 72.9, SD_1 = 4.76252, SD_2 = 5.96393 \]

\[ d = (85.45 - 72.9) / 5.397 \]

\[ SD_{pooled} = \sqrt{\left(\frac{(4.76252^2 + 5.96393^2)}{2}\right)} = 5.397 \]

\[ d = 12.550 / 5.397 = 2.325 \]

\[ d = 2.325 \]

After the results of the research are descriptively and statistically discussed, interpretation can be withdrawn concerning the implementation of the model learning advocacy for student’ learning outcomes in classrooms. The first research findings showed that student’ learning outcomes in the experimental group are in the very high category, while student’ learning outcomes level of the control group is in the high category. The findings of the second study showed that there was a significant increase in the student’ learning outcomes of both the experimental group and the control group. However, the result of the mean difference, the increase in the experimental group (85.45) is higher than the control group (72.90).

The results of this study were in line with previous research [14, 15, 16, 17, 18, 19, 20, 21]. Third research findings have shown that there is a significant mean difference in the learning outcomes of the experimental group after being taught using a learning advocacy model and no control group. Fourth research findings have shown that applying advocacy learning model to improve student learning outcomes is effective with an effective contribution (effect size) of 76%, while the application of conventional methods is ineffective in improve student learning outcomes.

There are several reasons why a model of advocacy learning provides a positive and significant improvement towards the learning outcomes of Christian Religious
Education (The experimental group). The first reason, it is quicker to influence student learning activity in absorbing lessons given by the teacher, because the system that has been taught to students is to use group discussions (debate) and students who have arguments and opinions can speak actively and boldly. This activity allows students to interact and exchange ideas and thoughts with their peers in the discussion group. This statement is underlined by Adewuaya, mentioning that discussion can be a first step for students to create an opinion or clarification point of view, contribute, and explanation [24].

In line with that, Stephen & Stephen claimed that the discussion could increase student democratic participation because the discussion included exchanges, movements, inquiry, cooperation and collaboration, formalities and informality [25]. This is in accordance to implement a model of advocacy learning that the model of advocacy learning is a student-centered learning model capable of stimulating students’ active participation in learning by presenting the conditions of pleasant learning, improving academic achievement [13], and at the same time can accommodate the ability of the students so that the timing of completion of the task becomes high. All of these, indicating that advocacy learning models help identify the learning practices that have been demonstrated to produce high academic achievement and or close the gap in academic achievement [26, 27].

The second reason, the model of advocacy learning is an excellent way to increase knowledge and promote change in social issues [28], such as divorce, family and Christ, and aspects of the nation’s character. It is also confirmed by Nurwahidah & Muttaqin, that the teaching model of advocacy can increase the understanding of social issues such as having good moral, being responsible, disciplined, caring, and mutual respect [18].

For the third reason, students give an active response to replies and responses when they answer objections and questions during the ongoing discussion. This situation makes students try to convey their arguments accordingly and listen to questions and think about getting answers immediately. When students see the topic of discussion, they strive to understand and discover the context of issues relating to the opinions that are discussed (debates) and divide the context with their teammates, and they also seek to investigate the truth in Christ to answer the topic to be discussed.

However, concerning perspective, when students want to bring perspectives relating to the given topic, they provide a vague perspective, while their opposing team can provide a better perspective closer with the case brought in the discussion. In this context, teaching by advocacy can enable student involvement in the process of critical thinking, improve social life skills, and also increase tolerance to opposing groups that have different perspectives [29].

4. CONCLUSION

Based on the findings and discussion, the conclusions that can be taken are: (1) the student’ learning outcomes in the experimental group are in the very high category, which is greater than the control group; (2) statistically, the advocacy learning model provides a significant increase in the experimental group compared to the control group; (3) there is a significant difference in the mean of student’ learning outcomes after being taught using advocacy learning model, and (4) implementation of the model of advocacy learning is effective in enhancing the student’ learning outcomes with an effective contribution (effect size) of 76%.

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