Development of Thematic Instructional Models Problem-Solving based Morals Integrated for Early Childhood


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Abstract

This study aims to develop an instructional model problem-solving based that integrated with morals. The method used modification between the Borg and Gall research model and Dick and Carey Instructional Design with four stages of development steps. The first stage is a preliminary study in the form of needs analysis, (2) the second stage is the planning stage of instructional model development, (3). The third stage is trial, expert evaluation and product revision, and (the fourth stage of model implementation. Participants in the study were 90 students. The finding of this study is that using a problem solving-based instructional model thematic can develop morals in early childhood. At the same time, the novelty is that the problem-solving strategy integrated moral development.

Keywords: Problem-solving, Instructional Design, Moral Education.

Introduction

Moral development in education has been carried out in various countries of the world. Japanese children make ethical decisions through cultural filters such as Sunao (cooperation), Hansei (reflection), apology, and feelings and feelings of right or wrong (Stone-Romero & Stone, 2002). American children make moral decisions through cultural filters such as honesty, feelings, and a sense of right and wrong (Bird et al., 2020). Comparing the two cultures, he finds that Japanese children internalise more social and moral norms.

Research on instructional morals on the early childhood curriculum in Kuwait was conducted by Noor (2021). The researchers focused on eight dimensions: honesty, honesty, gratitude, loyalty, reasonability, fairness, generosity, and patience (Noor, 2021). In Taiwan Kindergarten, character formation is carried out through music and integrated with activities in early childhood. The study used the piece to improve character education in early childhood. This research focuses on caring, respect, courage, honesty, responsibility, and working together. His research results show that the integration of music in learning improves character in early childhood (Lee, 2016).

Based on the above research results, Japan, America, Kuwait, and Taiwan provide moral education in their education. Some of the moral values developed by Japan: cooperation, self-reflection, self-defence, taste, knowing right and wrong. The ethical decision of American students is honesty, feelings, and knowing right and wrong—morals in Kuwait's early childhood: caring, respect, courage, honesty, responsibility and cooperation.

Indonesia as a religious country also attaches great importance to moral cultivation from an early age. In the Regulation of the Minister of Education and Culture of the Republic of Indonesia, Number 146 of 2014 on Curriculum 2013 of Early Childhood Education in article 5 explained that the structure of the PAUD Curriculum contains development programs that include: Religious and moral values, motor physical, cognitive, language, social-emotional
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and arts (Kementerian Pendidikan dan Kebudayaan, 2015).

Previous research on morals revealed that children who permit to go to the toilet sometimes do not go to the bathroom but instead play in the playground—Moral Education in Kindergarten (Rukiyati et al., 2020). Bunu (2016) stated: There are five groups of problems experienced by children according to teachers and parents, namely: (1) social problems, for example, aggressively displayed in the form of puniting and hitting friends, (2) emotional problems, for example, shy displayed in the form of shy behaviour does not want to make friends, (3) moral problems, for example damaging displayed in the form of behaviour intentionally damaging to friends' toys, (4) problems of understanding development, for example, slow in understanding the information/explanation displayed in the form of difficulty understanding information or explanations, and (5) language problems, for example, displayed in the form of stuttering behaviour in speech (Bunu, 2016).

Based on the results of the above research, there are a number of problems in early childhood. It considered necessary to conduct helpful research to develop morals in early childhood. In addition to moral issues in children, moral education is also critical to be developed in children because morals are vital in a person's development. Vahid Ahmadi (2012) explains that morals and religion are essential dimensions in a person's life, and the level of moral development will affect one's life. Moral values formed through experience inside and outside the classroom. These values are included differently from one child to another, with individual situations leading to different values that each child has.

Problem-solving is proven to be decisive for children's problems (Albay, 2019), improving social competence and developing language skills (Dennis & Stockall, 2014). Problem-solving can improve the ability to analyse, design, decision and problem-solving capabilities (Akcaoglu, 2014). Problem-based learning is effective in enhancing the process of problem-solving capabilities (Yu et al., 2015). Ability to think critically through challenging questions and meaningful experiences in an environment that challenges their safe zones (Beavers et al., 2017). Techniques that will be used problem-solving strategies that integrate the moral dimension into themes developed for early childhood.

This study aims to develop a thematic learning model with problem-solving that integrates with morals for early childhood. The novelty is that problem-solving strategies are integrated with moral development. The formulation of research problems whether problem-solving learning models combined with morals effectively improve the morale of early childhood. Moral formation strongly influenced by family education and school education. However, in this study, researchers chose problem-solving to develop moral development that I limited only in school. In research on problem-solving, quality aimed at transforming the meaning of learning for students (Hmel-Silver, 2004). They combined teaching methods, such as discovery learning, concrete manipulation and connecting the old with the new so that learning becomes meaningful (Hanafi, 2016).

Research Methods

Sample

The research was conducted at Ketilang Kindergarten State Islamic University (UNI) Jakarta, and Asiyah Kindergarten and Permata Amalina Kindergarten. The study focused on group B, based on the consideration that teachers in group B have introduced simple problem-solving techniques before—including respondents as many as 90 children of kindergarten students Group B. The age of children ranged from 5-6 years or children in kindergarten B—the characteristics of participants as seen in table 1.

Table 1. Characteristics of Respondents

<table>
<thead>
<tr>
<th>No .</th>
<th>Gender</th>
<th>Age</th>
<th>Numbe r</th>
<th>Presentatio n</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wome n</td>
<td>5</td>
<td>23</td>
<td>25.55%</td>
</tr>
<tr>
<td>2</td>
<td>Men</td>
<td>5</td>
<td>19</td>
<td>21.11%</td>
</tr>
<tr>
<td>3</td>
<td>Wome n</td>
<td>6</td>
<td>32</td>
<td>35.55%</td>
</tr>
<tr>
<td>4</td>
<td>Men</td>
<td>6</td>
<td>16</td>
<td>17.79%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>90</td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

Research Design

The method used is a quantitative approach using the Borg and Dick Carey innovation model (Dick et al., 2015; Gall et al., 2016). After the learning model was developed, before testing with prospective users, validation was carried out. Verification carried out by a team of experts consisting of content, design and media experts. After the learning model is declared feasible by a team of experts, the product developed is tested with a large group to produce effectiveness.

This research design provides intervention to students to learn through problem-solving-based thematic learning models integrated with morals. At the initial stage, a questionnaire was given to determine the students' previous learning model knowledge. After analysing student responses, activities using the learning model were carried
out twice a week for 16 weeks. During this period, thematic learning models based on problem-solving were distributed by students to be studied with teacher guidance through google meet. Parents are also expected to accompany their children while exploring.

After the learning process, students are expected to take a survey designed to measure experiences during the learning process. Teachers and parents have given consent for the activities carried out for the research. After completing the learning trial, all participants (accompanied by their parents) were asked to fill out an online survey via a google form regarding their views on the use of a morally integrated problem solving-based thematic learning model.

Research Instruments

After completing a series of lessons, the instrument is designed according to the concept of problem solving-based thematic learning that is integrated with morals for early childhood. The device used is a Likert scale questionnaire to obtain information to assess the level of knowledge based on learning outcomes with a problem solving-based thematic learning model that is integrated with morals. Scoring rubrics for scores, including,

1 = strongly disagree
2 = disagree
3 = agree
4 = strongly agree

Also, this instrument has been validated before use. The questions in the tool consist of 10 items, as presented in Table 2. In addition, the component discussed in this study is the use of a morally integrated problem solving-based thematic instructional model.

Table 2.
Research Instrument

<table>
<thead>
<tr>
<th>No.</th>
<th>Question indicator</th>
<th>Number of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Children can pray.</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Know worship</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Children can love</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>Manners</td>
<td>4</td>
</tr>
<tr>
<td>5.</td>
<td>The child is responsible</td>
<td>5,6</td>
</tr>
<tr>
<td>6.</td>
<td>Children can maintain cleanliness</td>
<td>7</td>
</tr>
<tr>
<td>7.</td>
<td>Children can love the country.</td>
<td>8</td>
</tr>
<tr>
<td>8.</td>
<td>Children can know the deliberation and consensus.</td>
<td>9,10</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>10</td>
</tr>
</tbody>
</table>

Pre and post-test instruments are also carried out online through the use of google forms. Pre and post-test analyses aim to diagnose student experience before and after using the learning model in the learning process.

Data Analysis Technique

The data analysis technique used is based on information from a survey completed by students. Students were observed to fill out forms based on the students’ perspective on the integrated thematic learning model. Statistical testing was carried out through the t-test method (Gall et al., 2016) to determine learning effectiveness in large group trials. After that, the t-count values were compared with one-way t-tables, with confidence and freedom levels = 95% and df = n-1, respectively. When t-count becomes greater than t-table, the null and alternative hypotheses are rejected and accepted, respectively.

Results and Discussion

The pre-test results showed that most of the students had previously studied thematic with an average score of 78%. However, students cannot yet identify problems and provide solutions to problems and behave according to the norms set in the learning environment. It was also diagnosed that students need to learn and practice several topics related to thematic learning based on morally integrated problem-solving. In addition, it was also emphasised that students have limited knowledge about several things, about identifying problems, providing solutions and seeing facts in the field.

After the learning model intervention, the post-test results showed students’ perceptions of the problem-solving-based thematic learning model integrated morally for early childhood, as presented in Table 3.

Table 3.
Result Description Pre-test and Post-test

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test</td>
<td>90</td>
<td>24.67</td>
<td>3.922</td>
</tr>
<tr>
<td>Post-Test</td>
<td>90</td>
<td>34.35</td>
<td>1.964</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>90</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on Table 3, the T-Paired test to determine the difference before and after the intervention was also presented in Table 4.

Table 4.
Paired T results

<table>
<thead>
<tr>
<th>Statistical Test Results Pre and Post-test</th>
<th>T-Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>-9.683</td>
</tr>
<tr>
<td>df</td>
<td>99</td>
</tr>
<tr>
<td>T-statistic</td>
<td>16.434</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>0.500</td>
</tr>
<tr>
<td>Sig.(2-tailed)/ p-Value</td>
<td>0.000</td>
</tr>
</tbody>
</table>

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Based on Table 4, it can be seen that the t-statistic value is 16.434 when compared to the t-table on df 99 of 1.671. Because the t-statistical value (16.434) is greater than the t-table (1.671), the result is interpreted as significant, which means that the pre-test value is different from the post-test. Also, from the Table parameters, it is observed that Sig. (2-tailed)/p-value is 0.000. This means that there is a difference between the two interventions (before and after), because p-value = 0.000 < = 0.05 (95% confidence level). Because the average value is at -9.683, the result is interpreted negatively, which means there is a tendency to increase the post-test score after treatment. With an average increase of 9.683, it was concluded that the thematic learning model was effective for children aged 5-6 years.

The effectiveness of this problem-solving-based thematic learning model helped develop ways of praying in early childhood, with participants' response scores of 88.17% (strongly agreeing), 10.31% (neutral), and 0.76% (disagreeing). As stated by Huang (2020), students achieve better results when studying with problem-solving (Huang, 2020). Therefore, a thematic learning model based on problem-solving integrated morally effectively to develop praying in early childhood. The cleanly integrated problem-solving thematic learning model also helps develop manners, showing that 88.17% of students strongly agree and agree, with neutral and disapproval rates of 10.31% &1.53%, respectively. Therefore, through a problem-solving-based thematic learning model integrated morally, it is beneficial to achieve improved early childhood manners (Lan, Hsiao and Shih, 2018).

Using a morally integrated problem-solving thematic learning model helps develop knowledge about maintaining environmental cleanliness. Based on the results of a poll analysis that 88.55% of students strongly agree and agree, with neutral and disapproval levels of 9.16% & 2.29%, respectively. These results support that thematic learning models based on problem-solving integrated morally effectively achieve increased knowledge in maintaining environmental cleanliness (Teichmann et al., 2020). Respondents also revealed that perceptions about using thematic learning models based on problem-solving that are integrated morally extensively increase knowledge about loving the homeland. Most of them strongly agree and agree (87.97%), with others neutral and disagree each at 11.2% &0.75%. These results align with research conducted by (Jaiswal 2020; Kyewski & Krämer, 2018)which emphasises that thematic learning model based on problem-solving that are morally integrated increase students' knowledge in learning.

A child's morals develop by forming a strong emotional attachment to his group, which the child makes a rule and values as his own. Similarly, Turiel says that children learn to accommodate the traditions and customs in their culture(Turiel, 2012). The morality of early childhood and its development can be seen from attitudes and ways of relating to others (socialisation), dress and look, and eating attitudes and habits. Similarly, a child's attitudes and behaviours can smooth their relationship with others. Moral development to early childhood can be done using individual, persuasive, democratic, exemplary, informal, religious approaches and learning.

According to (Wahidah & Maemonah, 2020), the moral development of preschool-age children is at its most basic level, pre-conventional moral reasoning. At this level, the child has not shown the development of moral values. Ethical considerations are based on physical and hedonistic consequences. A child's moral development can be influenced by intellectual development and reasoning; therefore, children need practice on how to identify problems and provide solutions through problem-solving-based learning. (Santrock, 2016) states that "moral development is change, reasoning, feeling, and behaviour about standards regarding right and wrong".

Conclusion

The results of this study have implications for developing moral values in early childhood education programs. Thematic learning model based on problem-solving integrated morally can form good behaviour following the importance of norms. The formation of this behaviour serves to achieve several things: Instilling habituation of attitudes and behaviours based on religious and moral values so that children can live following the values held by society. Help children grow into mature and independent individuals. Instill good ethics and train children to distinguish between good and bad attitudes and behaviours to avoid reprehensible acts consciously. As a vehicle for creating a child's learning situation that takes place orderly, active, and attentive. Train students to love a clean and healthy environment Instil disciplined habits in everyday life.

Limitations of this research in data retrieval techniques and online learning interventions to explore more minor student characteristics and obstacles in learning. More research is needed to explore the features of students and the learning barriers experienced by early childhood.
References


