Formative Evaluation Instruments of Integrated Character Education in Thematic Learning

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ABSTRACT

The social, emotional, and ethical domains receive less emphasis on all subjects, except for subjects aimed at moral development, causing many problems. However, due to various limitations, it is not uncommon for education in schools to emphasize the academic realm, which is a provision for students to find provisions for life in the future. This research aims to develop an Integrated Character Education Formative Evaluation Instrument in Thematic Learning. This type of research is development. The integrated character education assessment instrument was developed following the Gregory test development procedure. The methods used in collecting data are questionnaires and observations. The data collection instrument used a questionnaire. The technique used in analyzing the data is descriptive qualitative and quantitative analysis. The study's results, namely the expert assessment, found that the instrument's content validity was qualitatively feasible and quantitatively. It was also feasible because the Content Validity Ratio (CVR) ranges from 0.80-0.82. The rater's reliability coefficient is 0.78 and has exceeded the eligibility threshold. It was concluded that the instrument could be used for simultaneous character and academic evaluation, both for evaluating learning activities in and outside the classroom with a performance approach.

1. INTRODUCTION

Education empowers people with the knowledge, skills and values to live with dignity, build their lives and contribute to their society (M. Astuti et al., 2021; Hashim, 2018; Heryanto et al., 2019). Education equips graduates with the knowledge, skills, and characters that are able to ensure a decent life for themselves and their families, and are able to coexist peacefully in society. Learning outcomes include cognitive, affective, and psychomotor domains. Learning is more effective and meaningful if integrated learning outcomes cover all domains (Anderson et al., 2001; Bower et al., 2015; Juhji & Nuangchalerm, 2020). Education aims to develop the potential of students to become human beings who believe and fear God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens (Amran et al., 2019; Rusilowati & Wahyudi, 2020; Suryawati et al., 2018). Various skills must be possessed and applied properly in order to live in society. However, due to various limitations, it is not uncommon for education in schools so far to place more emphasis on the academic domain which is a provision for students to find provisions for life in the future (Weiwei et al., 2021). The social, emotional, and ethical domains receive less emphasis on all subjects, except for subjects that are intended for moral development, causing many problems. There are no special subjects for character education. Character education is carried out continuously and through all mutually
reinforcing subjects. Planning and implementation of learning in all subjects is carried out in such a way that character education is contained in it. Teacher expertise is required to organize strategies for integrating character education in subjects, either through routine activities, specially designed activities, or spontaneous activities (Heriyanto et al., 2019; Rianafik & Raharjo, 2017; Santika, 2020). Social, emotional, academic, and ethical education can help children to achieve the educational goals set by their parents and teachers, understand themselves and others, and learn to solve social, emotional, and ethical problems (Rusilowati & Wahyudi, 2020; Sekarwati, 2020; Sokip et al., 2019). Empirical experience in the field shows that the difficulties experienced by teachers in implementing integrated character education in all subjects in schools, among others, occur in the implementation of evaluations, especially formative evaluations (B. Astuti & Mufriah, 2019; Pike et al., 2020; Ramdan & Fauziah, 2019). Formative evaluation is applied by the teacher during the learning process to get feedback from students as material for planning the next lesson in an effort to improve student learning outcomes (Riyanto et al., 2019; Schneider & Bodensohn, 2017). The problem that is quite difficult in implementing formative evaluation is getting information on the progress of learning outcomes in an integrated manner in academics and character.

One form of integrated formative evaluation between the cognitive domains and character education which is considered quite effective is observation. Observation does require quite a lot of time and energy to do it. However, the provision of effective procedures and appropriate rubrics can facilitate the observation process so that it can take place efficiently (Lickona, 1997; Perbowosari, 2018; Widodo, 2019). Character education will not succeed without family involvement, this condition demands the provision of easy-to-use character education instruments because the understanding of evaluation is very diverse (Amran et al., 2019; Dharma & Siregar, 2015; Perbowosari, 2018). Instrument developed is an observation guide that contains components for evaluating cognitive and character learning outcomes. The instrument is difficult to apply as an observation guide for formative evaluation of integrated character education in elementary schools. The implementation of learning in Elementary Schools/Madrasahs is carried out with an integrated-thematic learning approach (Aziz et al., 2018; Hendrizal & Chandra, 2018; Wulandari et al., 2020). Elementary school students who in learning have concrete, holistic, and hierarchical characteristics are very suitable for integrated or thematic learning (Singh, 2019; Suminto & Mbato, 2020). Themes that are conditioned to be close to children’s daily lives make learning more meaningful. Therefore, the thematic learning model as one of the learning components has a very significant role in achieving learning outcomes, both in terms of knowledge, skills, as well as values and attitudes/characters (Chumdari et al., 2018). Through thematic learning students will be able to see the relevance of the material being studied. As a result, thematic learning is effective in terms of training/special skills development for school-age children. This study in line with previous study that analyzed secondary school students perceptions of Formative evaluation in learning mathematics and the relationship to their motivation to learn the subject (Githua, 2013). This study involving of 649 students from 32 secondary schools (320 boys and 329 girls). The result of study indicated that relationship between that Formative Evaluation Questionnaire and students’ motivation to learn mathematics was strong and significant (r=0.750) at α=0.01 significant level. Some aspects of students perception of mathematics formative evaluation had gender differences significant at α=0.05 level. The implications of the findings of the study have been indicated and recommendations made for mathematics educators and for further research. And it is also supported by other previous study that aimed to know the role that the formative evaluation fulfills in the teaching-learning process (Menéndez et al., 2019). The results of the research showed that the formative assessment improves the school performance of the students and this can be used as a strategy to promote collaboration between them. Therefore this study tries to develop an observation guideline as an instrument of formative evaluation of character education in thematic learning in elementary schools. This evaluation model was adopted from the informal education process in Balinese culture. Various cultural events in Bali, both religious and social events, are carried out in mutual cooperation. Gotong royong for religious activities is called ngayah, while gotong royong for social activities is called ngoopin. Community members involved in gotong royong vary widely, both in terms of skills, experience, and age. More experienced or more skilled community members teach their inexperienced or unskilled colleagues. During learning there is also an evaluation process to measure learning success. Evaluation takes place informally covering knowledge, skills, and character.

2. METHODS

The integrated character education assessment instrument was developed following Gregory's test development procedure, namely instrument definition, scale selection, scale labeling, test preparation,
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instrument testing, instrument revision, instrument issuance. The assessment instrument formed integrates academic and character assessments adopted from cultural-based education assessments. Therefore, the dominant work is on defining instruments for conducting theoretical studies and extracting information from the field. The next step follows the results obtained from the definition. The definition of the test consists of identifying the use of the instrument, limiting the coverage area, and setting goals. The definition stage is carried out through theoretical studies, observations, and interviews with related experts. Observations were made on cultural activities carried out in mutual cooperation. Furthermore, in-depth interviews with natural settings were carried out with community leaders who were used to being involved in mutual cooperation events and had even been leaders at the said events. The sample of respondents was determined by a typical case sampling technique. The data collected was analyzed using a qualitative data analysis procedure consisting of three steps, namely organizing the data, transcribing the data, and analyzing the data (Creswell, 2008). The stages of selecting a scaling method, representative scaling method, and constructing the test were carried out conceptually following the existing theory. Testing the instrument is done by testing the content validity and rubric reliability. Content validity was assessed qualitatively and quantitatively by eight experts. After going through the revision process and being declared valid, the instrument was then tried to be applied to 88 students who were divided into three classes. The assessment was carried out by three experts. The results of the assessment were then used to measure the reliability of the instrument using the Ebel formula.

3. RESULT AND DISCUSSION

Results

Balinese culture-based education has succeeded in passing down various knowledge and skills from one generation to the next. Observations of various cultural events in Bali found that learning took place informally in a mutual cooperation process to make the event a success. During learning there is also an assessment process. Senior participants evaluate junior participants during the learning process. Evaluation includes performance and character. Performance evaluation starts from the beginning of the work to the completion of the product, so that it includes knowledge of facts, concepts and work procedures. The performance evaluation component is in accordance with the taxonomy of learning outcomes formulated (Anderson et al., 2001), which includes factual knowledge, conceptual knowledge, and procedural knowledge. At the same time, a character evaluation was carried out which included the components of honesty, responsibility, and cooperation. The character components above are in accordance with the character components, namely caring, cooperation, commitment, courage, change, relationships, coherence, consensus, communication, culture, and criticality (Amran et al., 2019). This component is not much different from the moral component which includes sympathy, namely a caring response that comes from attachment and emotional contagion; social norms, namely the hope of order and social expectations; reciprocity, namely the concept of giving, receiving, and repaying favors; socializing, namely maintaining peace and avoiding conflict. The results of the analysis conclude that the formative evaluation of integrated character education with the field of study includes indicators of factual knowledge, conceptual knowledge, and procedural knowledge for the dimensions of the field of study; and honesty, responsibility, and cooperation for the character dimension. The description of each of these indicators is as listed in Table 1.

Table 1. Instrument Dimensions, Indicators and Description

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Indicators</th>
<th>Description</th>
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<tbody>
<tr>
<td>Academic</td>
<td>Factual knowledge</td>
<td>Knowledge of terms used in problem solving</td>
</tr>
<tr>
<td></td>
<td>Conceptual knowledge</td>
<td>Knowledge of the concepts used in problem solving</td>
</tr>
<tr>
<td></td>
<td>Procedural knowledge</td>
<td>Knowledge of the procedures used in problem solving</td>
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<tr>
<td></td>
<td>Honesty</td>
<td>Openness to self-ability, readiness to receive input, sincerity to help colleagues</td>
</tr>
<tr>
<td>Character</td>
<td>Responsibility</td>
<td>Commitment to learning in groups, caring for group members, and respect for peers</td>
</tr>
<tr>
<td></td>
<td>Cooperation</td>
<td>Communication skills, communication ethics, and speech</td>
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Integrated character education instrument for thematic learning was developed in the form of an observation guide with a rating scale technique, as shown in Table 2. The choice was taken by considering the large student population, while the time available was limited. Indicators with descriptions that are
not too detailed are expected to assist teachers in conducting systematic observations. Systematic observation allows teachers to gather information about children across developmental domains as well as determine the child’s overall learning progress (Coleman et al., 2010).

**Table 2. Integrated Character Education Instruments**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Indicators</th>
<th>Score</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Academic</td>
<td>Factual knowledge</td>
<td></td>
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<tr>
<td></td>
<td>Conceptual knowledge</td>
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<tr>
<td></td>
<td>Procedural knowledge</td>
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<td></td>
<td>Cooperation</td>
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</tbody>
</table>

Description: 1 = no progress; 2 = minor progress; 3 = moderate progress; 4 = good progress; 5 = very good progress.

The developed observation guidelines support the evaluation of core competencies and basic competencies required in the 2013 Curriculum. The core competencies and basic competencies in the 2013 Curriculum for Elementary Schools/Madrasahs cover spiritual attitudes, social attitudes, knowledge, and skills. These competencies are monitored in learning so that the learning progress achieved by students is known. The process of monitoring students’ learning progress is carried out through formative assessments. The results of the monitor are used as a guide to improve the learning process. The learning process is followed by formative evaluation and followed by improvement of the learning process occurring in a continuous cycle. Thus, improving student learning outcomes can be done continuously. The review by eight experts to test the content validity showed that quantitatively the instrument was feasible to be applied. The Content Validity Ratio (CVR) of all items is in the range of 0.80-0.82, which has exceeded the set limit, namely 0.78. The results of the qualitative review also stated that the instrument was feasible to be applied. Some things that still need to be studied further is the amount of time required to observe all the components. The recommendation given is that the evaluation is carried out gradually and continuously, especially if the problems that students have to work on are very complex. Which components should take precedence and which components may be carried out then are fully considered by the teacher as an observer. Teachers can also consider the characteristics of students, so that they can sort out students who need to be seriously observed. The limited empirical test was carried out by applying observation guidelines to 88 students who were divided into three classes, in which the observations were carried out by three raters. Analysis of observation results by applying the Ebel formula gives a reliability coefficient of 0.78. Then the reliability coefficient of 0.70 is considered adequate. This means that the observation guidelines developed include academic and character components that are consistent, so they are feasible to be applied. There still seems to be a variation in the assessment among the three raters involved, but the variation that occurs is still within tolerable limits.

**Discussion**

The integrated character education instrument is very relevant, especially for observing student activities to carry out performance assessments in cooperative learning. Performance assessment is an approach to measure student status based on a specific task given (Johnson, 2002). Students are required to demonstrate their ability to organize material in their own way. Content knowledge and procedural knowledge are applied in an integrated manner in completing the performance assessment. As a result, teachers have the opportunity to obtain authentic information about student competencies, both process and product. Therefore, the tasks in the performance assessment contain tasks that are complex, complete, and related to everyday life, so that the abilities that can be measured are more integrated (Asrizal et al., 2018; Khoiriyah & Husamah, 2018). In addition, because the activity takes place in a cooperative setting, character components such as communication skills, cooperation, honesty, sincerity, and tolerance can also be observed. Thematic learning focuses on real student competencies. Competency-based education that focuses on competencies that provide opportunities for students to work actively, responsibly, and creatively in the formation of personal, social, and professional life skills must be carried out in a holistic and integrated manner (Cotta & Costa, 2016). Performance assessment provides an opportunity to evaluate knowledge, skills, creativity, commitment, responsibility, and several other components of character. It is difficult for students to pretend to be capable or pretend to be responsible because everything can be observed by the teacher. It is also very difficult for students to guess the answer if they
do not master the material. In other words, performance assessment is able to measure the results of integrated competency learning (Sopacua et al., 2020).

The implementation of performance assessment for assessment of mastery of subject matter and character in an integrated manner is relatively different from the performance assessment that has been implemented so far. Integrated competency-based formative assessment requires a radical change in the assessment paradigm (Maier et al., 2016; Wongwatkit et al., 2016). The given task is able to measure the mastery of the material which varies according to the level of difficulty. Thus the level of student ability can be seen from the performance shown. In addition, the task also requires students to involve a variety of sources, so that their efforts to complete the task appear. Assignments are mostly made in a cooperative format, so that some of the student's competence in collaborating is shown. Thus, the character of students as a result of the learning process can also be evaluated properly as a guide for providing feedback. In line with previous study, that aimed at investigating the mathematics learning interest of grade three elementary school students through the integration of thematic learning with character education, referred to as the character-integrated thematic learning model (Syamsuddin et al., 2021). This indicates that there has been a significant increase in students' learning interest scores with the implementation of character-integrated thematic learning model. Thus, this learning model can be applied to pay attention to the development of student's character which has an impact on increasing student's learning interest. Then supported with other study that investigate why the mathematics teachers who participated in a successful professional development program in formative assessment developed their formative classroom practice to such an extent that it had a significant impact on student achievement (Andersson & Palm, 2018). Analysis of the data from the questionnaires and teacher interviews showed that the teacher's actions could be explained by the value theory of achievement motivation expectations. The characteristics of the professional development program that teachers experience are as important as the development of their formative classroom practice. Formative assessment has been shown to have the potential to significantly improve student achievement. The abilities measured through performance assessments can be hierarchical in nature, both in terms of complexity and level of difficulty. Teachers can decide the level of mastery of children more authentically because they have the opportunity to monitor student development continuously. The continuity of observation provides an opportunity to measure students' abilities more fully. Even the teacher can also measure the intrinsic value of a given task. Honesty, commitment, responsibility, discipline, curiosity, creativity, and independence are examples of intrinsic value that can be measured through performance assessments. If the performance assessment is applied in a cooperative setting, more values can be measured, such as tolerance, appreciation, and concern. In further research, what can be learned is that observations do not have to be forced to complete in one meeting, but can be more than one meeting, depending on the number of students observed. In addition, it is also hoped that parents at home can also use this instrument to assess their child's learning progress, although with a very simple approach due to the diverse conditions of parents.

4. CONCLUSION

An integrated character education evaluation instrument for thematic learning has been successfully developed. These instruments are needed very urgently, especially for formative assessments in order to provide accurate information on student learning progress for the academic and character components. This information is very useful for planning further learning to be more holistic and more integrated, so that the quality is better. The instrument developed was adopted from the evaluation process of informal education in Balinese culture. The instrument was developed in the form of an observation guide equipped with a rating scale to evaluate student performance. Students are given assignments to be completed in groups. Their academic competence and character during the task were evaluated using the observation guide. The observed academic components are factual knowledge, conceptual knowledge, and procedural knowledge for the dimensions of the field of study, while the observed character components are honesty, responsibility, and cooperation.

5. ACKNOWLEDGEMENT

The developed instrument still has limitations because it has only arrived at a limited trial. The Covid-19 pandemic, which has forced the government to carry out online learning from the beginning of 2020 to the end of 2021, has caused wider trials to not be carried out. Nevertheless, we would like to thank the UNDIKSHA research institute which has funded this research and the UNDIKSHA laboratory elementary school manager who has been willing to serve as a pilot site.
6. REFERENCES


