

Development of Student Worksheets Based on Integrated Models in Students Class I Elementary School

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Abstract: *Learning is meaningful if the teacher uses learning resources that are content, language and appearance according to the needs of students. Integrated model is a learning process that connects material with students' real life experiences so as to improve students' abilities. Based on preliminary observations, the teacher only focuses on student books so that learning is less meaningful. This type of research is development research that produces a product in the form of an integrated model student worksheet that is valid, practical, and effective to improve student competence. This development study uses a 4-D model with four stages, namely: define, design, development, disseminate. The research instruments were observation sheets, teacher and student questionnaires, student test results. Data were analyzed by statistical descriptions to produce the validity, practicality, and effectiveness of student worksheets developed. The results of the development research show that the integrated model student worksheets are categorized as valid, practical, and effective.*

Keywords: Student Worksheets, Integrated Models, Development Research

1. Introduction

Elementary school education is a container in the process of developing the most basic abilities of each student, where each student learns actively because of the encouragement in themselves and the atmosphere that provides convenience and is conducive to optimal self-development. Improvement of education in schools, many of the efforts that have been, are currently being carried out, and will continue to be carried out. One of the efforts that we have felt is that the change in KTSP curriculum has changed to the 2013 Curriculum. The 2013 curriculum integrates basic competencies from various subjects, namely intradisciplinary, interdisciplinary, multidisciplinary, and transdisciplinary, which are integrated attitudes, knowledge and skills as outlined in basic competencies which has been combined in various disciplines and linked to the problems found around students so that learning becomes contextual. The effort to improve the quality of learning is considered the most strategic considering its role directly affects the learning process and results of students. appendix in the Permendikbud Nomor 103 of 2014 concerning Learning in Basic Education and Secondary Education

The importance of effective learning, education must be able to prepare learning resources according to the principles of development. Learning resources developed can be organized in the form of student worksheets. Student worksheets given to students must be well designed by taking into account the needs and characteristics of students. Effective student worksheets in learning are to provide the widest opportunity for students to understand learning material by activating nerves and organs / muscles by engaging learning through the psychomotor domain of students, this will support students' understanding in the cognitive domain and its application, namely attitude. Such student worksheets contain problems that are often encountered by students in the real world so that students plan to think in finding learning concepts based on their own

ideas, think thoroughly, think systematically, analytically and logically. The ability of teachers to develop learning tools and interaction between educators and students that are conducive to learning, is related to teacher competency standards that an educator must have as listed in the appendix of the Permendikbud No 16 of 2007.

Based on the results of observations carried out on May 8, 2018 at the Padang Utara Elementary School, the problem researchers found in school was first, the teacher was unable to plan and make student worksheets integrated with the lives of students so that learning was less meaningful. Secondly, teachers are also more fixated on students' books as the only source of learning. Third, on the Worksheet the students do not contain competency indicators, so that the behavior or output does not appear as expected. Fourth, the exercises presented in the LKPD are exercises in the form of multiple choice tests and entries in the form of short answers that do not sharpen the skills of students. Fifth, viewed from content The worksheets of students provided by the school are less visible in problem solving activities that combine multiple disciplines so that students are less active in exploring and obtaining facts and concepts holistically and meaningfully. Even though what is expected in the 2013 curriculum is learning must be integrated (integrated instruction). Sixth, in terms of the presentation aspect of the image that is not given a touch of color so it is less attractive, making students less motivated in learning it. "Primary school students have the characteristics of high curiosity to something that interests them" (Susanto, 2013: 77).

The author also found several problems in the teaching materials of the Student Worksheets cited from Lee (2014: 96), namely mass-produced worksheets did not help achieve educational goals. Aspects of the worksheet problem include the text format (for example, that the print and space provided for students to write is too small), the language of instruction on the worksheet is too complex and requires an

explanation from the teacher, the questions presented only offer one correct way to answer and does not provide opportunities for students to channel their natural curiosity and task challenges (for example, tasks are boring or designed to practice skills repeatedly). In addition to quality problems, when students complete cognitive questions on a worksheet, the questions on the worksheet are invalid.

The source of learning that is less effective affects the learning outcomes of students. Daily Deuteronomy Value (UH) of class I students in one of the Public Elementary Schools in Padang Utara sub-district 2018/2019 Academic Year, out of 26 students only 10 students who achieved a score above the Minimum Completion Criteria (KKM) set at 80. It can be concluded that the percentage of completeness of students is only 39% of the 26 students. This shows the quality of learning has not yet reached the level of learning success.

Based on the problems that occur in the field as described above, it needs to be addressed, given the importance of developing meaningful learning for students who activate abilities in the affective, cognitive and psychomotor domains of students in learning. Overcoming these problems requires an integrated model LKPD that can help active students in the learning environment and increase students' interest in learning and influence learning success in a positive way. Supported by the results of a review of the PGSD (1997) and Prabowo (2000) Development Team, there are three learning models proposed by Fogarty (1991) which are considered suitable to be developed and easily implemented in Elementary School formal education, one of which is an integrated model. Whereas According to Fogarty (1991: 77) that in elementary schools, integrated models can be illustrated on important elements, such as reading, writing, listening, and speaking skills that will link holistically to various disciplines.

Integrated learning integrated models can actually be implemented freely considering that elementary schools adhere to the classroom teacher system so that teachers or educators plan integrated learning models. Indeed the development of elementary school-age children is holistic, integrated, and closely interrelated with one another, making it easier and more meaningful for elementary school students to learn everything in full.

Some research results (Alghamdi, 2017; Bradbury, 2013) state that integrated can produce greater intellectual curiosity, increased attitudes towards schools, improved problem solving, and higher learning outcomes. The most interesting reason in the integrated model is in the learning process connecting the material with the real life experiences of students so that it increases the knowledge and achievement of the diversity of students' skills (Amini, 2017: 1587). The real life experiences of students differ in each area.

Choo et al. (2011: 520) worksheets are instructional tools that consist of a series of questions and information designed

to guide students to understand complex ideas when working systematically or individually.

There are several reasons if the student worksheet is integrated model (Kurt, 2013; Alghamadi, 2017), namely: combining two disciplines or more in a relevant sense, having flexibility in more than one field of study, application of learning related to real life or everyday , and help students develop diverse skills.

Some research results (Celikler, 2010; Yildirim, 2011; Arief, 2015; Farida, 2017) show that student worksheets can increase academic success, can help students develop appropriate meanings related to subjects that students carefully, make active participants in the learning environment and increase students' interest in the lesson, increase learning motivation and influence student success in a positive way.

Student worksheets are integrated model-based containing material and training that has relevance and connectivity between various subjects, exercises on integrated-based student worksheets present various types of questions which include the ability to find skills, concepts, and attitudes, both independently and cooperatively . Materials and exercises on integrated student-based worksheets are linked to the real-life experiences of students. Student worksheets will contain information relating to the material as well as instructions aimed at directing students to behave as expected by the teacher.

Based on the description above, the author is interested in overcoming the problem above by developing an integrated model student worksheet in a research development.

2. Research methods

This type of research is research and development. Sugiono (2012: 297) research and development is a research method used to produce certain products and test the effectiveness of products. The development model used in this study is the 4-D development model proposed by S. Thiagarajan et al in Trianto (2011: 189). The 4-D development model was chosen because it is more appropriate to be used as a basis for the development of learning tools and is easier to understand. The procedural 4-D development model is descriptive in that it outlines the steps that must be followed to produce the product and its development involves the assessment of experts, so that before the field trials are carried out revisions based on assessments, suggestions, and input from experts. This model consists of four stages, namely: define, design, develop, and spread (dessiminate). The steps are illustrated in the picture below:

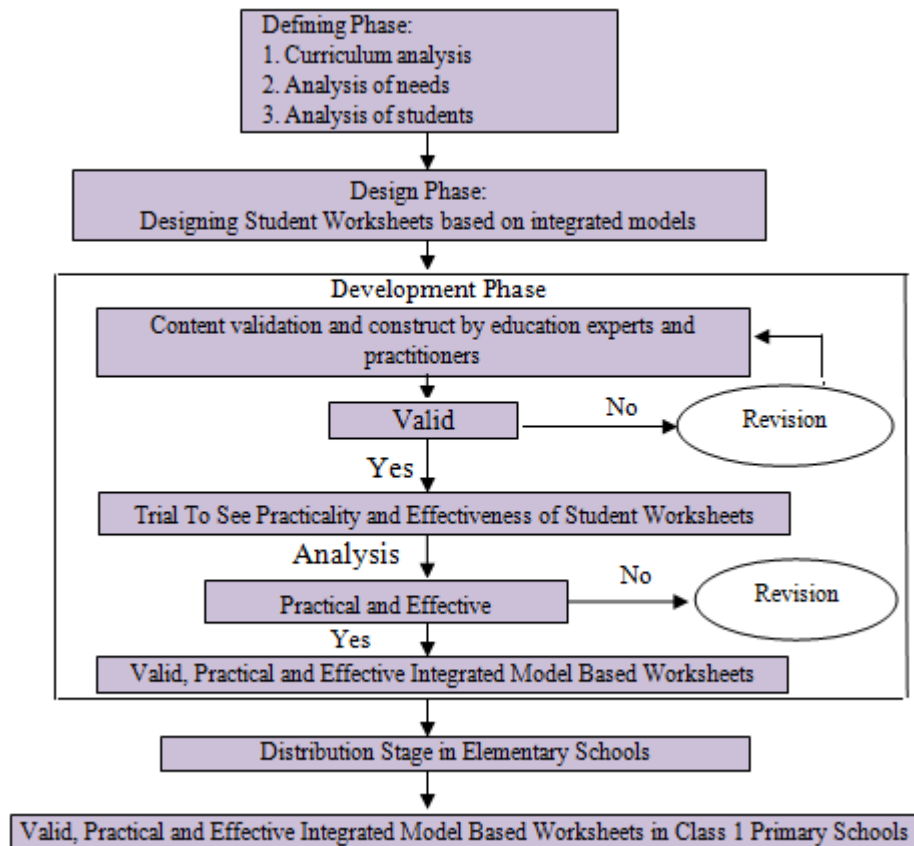


Figure 1: Development Model of Integrated Model Based student worksheets

(Adapted from Trianto, 2011: 190)

The definition stage is carried out to analyze the curriculum, analyze student needs, and study literature. The design phase is carried out to design student worksheets based on integrated models according to the results of the analysis. The develop phase aims to produce student worksheets that are validity, practicality, and effectiveness. The dissemination stage is the limited scale distribution stage. Data were analyzed by statistical descriptions to reveal the validity, practicality, and effectiveness of student worksheets developed.

3. Results and Discussion

a) Validity of Student Worksheets

Validation for student worksheets was carried out by five validators, one content expert, and one design expert and three practitioner experts from elementary school teachers. Based on the results of validation of Student Worksheets from expert validators and practitioner validators can be seen in the following recapitulation:

Table 1: Validation Results Student worksheets

No	Rated aspect	Average	Category
1.	Didactic aspects	4,20	Valid
2.	Content aspect	4,03	Valid
3.	Language aspects and readability	4,08	Valid
4.	display aspect	4,15	Valid
	Average	4,11	Valid

Based on table 1, it can be concluded that validation for integrated model student worksheets is in the valid category with an average score of 4.11.

b) Practicality of Student Worksheets

Practicality of integrated model student worksheets was conducted by testing SDN 05 Padang Utara. The trial was conducted in five meetings. observers in testing the practicality of student worksheets namely researchers and teachers. Observers observe the implementation of the learning process. Practicality of student worksheets in terms of student and teacher responses. The results of the analysis of teacher responses to the use of integrated model student worksheets in learning reached an average of 81.25 in the practical category. While students' responses to integrated model-based student worksheets reached 88.7 with a very practical category. Thus, it can be stated that the student worksheet developed by the researcher has helped in the learning process and is categorized as practical.

c) Effectiveness of student worksheets

The effectiveness of student worksheets is viewed from improving student competence in terms of knowledge, skills, and behavior at each meeting. The average student competencies are presented in Table 2.

Table 2: Student Average Competence

No	Rated aspect	Average	Category
1.	Knowledge	83,6	Very good
2.	Attitude	84,6	Very good
4.	Skills	82,7	Very good

Obtaining observations of psychomotor aspects obtained an average of 82.7 was categorized as very good. Attitude competencies obtained on average were 84.6 categorized as very good. Knowledge aspect shows that students who reach

the maximum completeness criteria are 23 out of 26 students. means that the value of students who complete is 88.5% and not completed as much as 11.5%. Thus, it can be stated that student worksheets are declared effective to improve student competence.

The results of this study indicate that the level of validity, practicality, and effectiveness after testing an integrated model-based student worksheet was declared valid, practical, and effective.

4. Conclusion

Integrated Model student worksheets produced in development research are valid both from the content and construct aspects, the Integrated Worksheet model based on the developed model has met practical criteria both from the aspects of ease of use and implementation by students, along with student worksheets based on Integrated Model has been effective in terms of positive activity of students and student learning outcomes of more than 75% reached the Maximum Completion Criteria. It is recommended that the Integrated Model student worksheet be an example for teachers in developing other learning student worksheets.

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