

IDENTIFYING THE PROBLEMS OF INDONESIAN PRIMARY SCHOOL TEACHERS IN DEVELOPING LEARNING DEVICES

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ABSTRACT: *This study aims to picture the ability of Indonesian elementary school teachers in developing learning devices as well as the problems they encountered and their needs. The research subjects are learning devices (curriculum, syllabus, lesson plan, teaching materials, learning media, evaluation instrument, and student work books). The data were taken from schools and teachers, document of learning devices, the organizers and managers of education units. The data was collected through interview technique, documentation, and observation; while the technique of data analysis is done descriptively-qualitative. The results showed that (1) the ability of Indonesian elementary school teachers in preparing instructional devices still need to be maximized. Although the quantity of its existence has been in accordance with the provisions of the national education standards agency, however, the quality can only reached an average of 9.78%; (2) the problems faced by elementary school teachers in preparing learning devices, namely: (a) unclear technical guidelines for the preparation of the curriculum and syllabus; (b) lesson plan is developed limited to administrative needs; (c) learning materials did not analyzed optimally; (d) instructional media did not designed properly; (e) the determination of evaluation tool and follow-up of learning was still very limited; (3) in designing learning devices, teachers need to understand some aspects, such as (a) the design of lesson plans, (b) the development of learning models and methods, (c) the development of media and teaching aids, (d) the development of learning implementation scenarios, and (e) the development of learning evaluation devices.*

KEYWORDS: Learning Device, Curriculum, Syllabus, Teachers' Competence, Elementary School

INTRODUCTION

One of the serious problems often faced by teachers in the teaching and learning activities is how to prepare the learning devices. Learning device is an equipment owned by the teacher and used to carry out the learning process either in class, laboratory, or outside of the classroom. According Zuhdan (2011) that learning devices are equipments that enable educators and learners to do teaching and learning activities. In this case learning device can be used as a reference for teacher so that the learning process can run as expected.

Due to the frequent change of curriculum in Indonesia, the need for the development of learning devices (e. g syllabus, curriculum, lesson plan, mastery criteria, teaching materials, teaching and learning media, student activity sheet, and evaluation instruments) is utmost important to be done every time. The problem faced by teachers today, however, is how to prepare the right learning devices in order to help students achieve expected competence.

The results of the study conducted by Nuraini *et. al* (2016) found that teachers' understanding toward the development of learning devices is still relatively low. Teachers almost never

develop learning devices themselves; teachers do not have references in the development of learning devices, and teachers still need guidance and training in the development of learning devices. Furthermore, it is argued that the use of learning devices (such as syllabus, lesson plan, teaching materials, teaching and learning media, student's work sheet and evaluation) is still very low in utilization. In terms of learning materials it needs to be supported by adequate devices. The study also revealed that the results of the questionnaire distributed to 257 teachers showed that 100% of teachers have never developed learning devices and still use the existing ones.

The results on problem identification related to learning phenomena occurring in elementary schools revealed that (1) teachers are not maximum in implementing conceptualized learning due to the low ability of teachers to plan; (2) low mastery of information and communication technology for the benefit of learning so as to negatively affect the mobility, productivity, and effectiveness of learning; (3) teachers are lack of awareness to own teaching and learning utensils such as computers/laptops/ notebooks and the procurement of the internet as a basic need to improve mobility, effectiveness and productivity; (4) teachers are relatively have low creativity in conducting research for improving the quality of teaching and learning; (5) teachers are relatively have low ability to develop learning models, to utilize learning environments and to develop environmental and technology-based media; (6) the teachers are not maximally yet to develop learning devices such as curriculum, syllabus, lesson plan, learning modules, students' worksheet, and authentic assessment.

Based on the problems identified, this study is focused on the preparation of learning devices conducted by elementary school teachers. Research results show that not all teachers are able to prepare adequate learning devices, especially concerning to the preparation of evaluation devices, instructional methods, teaching and learning media, students' workbook, and authentic assessment affecting student learning outcomes. Therefore, how are the ability of teachers and the problems they experience in preparing learning devices need to be proven empirically through scientific research. This study aims to obtain a picture of the ability of primary school teachers in preparing and developing learning devices; the problems experienced by teachers in developing and developing learning devices; and their need to develop learning devices.

METHOD

a. Approach and type of research

This research is a descriptive using qualitative approach. The data collected were in the form of description of opinions, responses, information, concepts and explanations. So this research produced descriptive data in the form of written or oral words.

b. Subject and Source of Data

The subject of the research were learning devices in the form of curriculum, syllabus, lesson plan, teaching materials, instructional media, and evaluation instruments/students' activity sheet. The sources of data were obtained from schools and elementary school teachers in Kendari City, Indonesia in 2016.

c. Technique of Data Collection

The data were collected through in-depth interviews, observation, and documentation. In-depth interviews and participatory observation are the characteristics of qualitative research (Bogdan & Biklen, 1982). Observations can be done actively and passively (Spradley, 1980). In an active observation, the researcher tried to participate in doing what the participants did. The researchers were not only accepting but actually studying the cultural rules of the behaviors that occur. While, through passive observation the researchers did not interact with the participant of the research. The documentation in this research was the documents of learning devices.

d. Data Analysis Technique

The data were analyzed qualitatively referring to steps proposed by Miles and Huberman (1994: 10-11). The steps of analysis consist of (1) data reduction: process of selecting, focusing, abstracting, and transforming the data that appear in written-up field notes or transcription; (2) data display: organizing data to categories; and (3) conclusion drawing and verification. The steps of data analysis can be displayed in Figure 1.

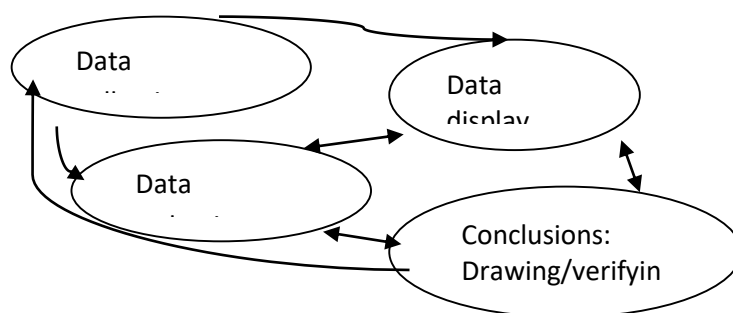


Figure 1. Steps of Data Analysis

RESULTS

Teacher's Ability in Preparing Learning Devices

The ability of teachers in preparing learning devices can be seen in Table 1.

Table 1. Teacher's Ability in Developing Learning Devices

No	Type of Ability to Compile Learning Devices	Frequency	Percentage%
1	Ability to Develop a Curriculum	50	50%
2	Ability to Prepare Academic Calendar	80	80%
3	Ability to Formulate Annual Program/Semester Program	80	80%
4	Capacity Building Syllabus	90	90%
5	Ability to Develop Learning Implementation Plan	20	20%
6.	Ability to Develop Minimum Criterion	8	8%
7.	Ability to Analyze the Daily Test Results	10	10%
8.	Ability to Analyze Lesson Materials	10	10%
9.	Ability to Complete Remedial and Enrichment / Remedial Record Books	8	8%
Average			39,78%

Source: Results of data analysis

Table 1 shows that the average level of ability of teachers in preparing learning devices is 39.78%. While the teachers' ability to prepare curriculum is 50%, and their ability to make academic calendar is 80%. Furthermore, ability to make annual program and semester program is 80%. Teachers' ability to make syllabus is 90%. While their ability to arrange lesson plan is only about 20%. Teachers' ability to compose curriculum is 8%, and their ability to analyze daily test is 10%. The teachers' ability to analyze the subject matter is 10%, and their ability to complete remedial and enrichment record books is 8% (under average).

The ability of teachers in preparing lesson plan of learning is presented in Table 2. It shows that the average level of teachers' ability to develop lesson plan is 37.2%. Their ability to describe competency standard, basic competencies and indicators reaches 90.4%, and the ability to set learning goals is 80% (above average). This is due to the elaboration of competency standards, basic competencies and indicators and learning objectives already listed in the curriculum and syllabus.

Table 2. Ability of Primary School Teachers in Preparing a Lesson Plan

No	Type of Ability	Frequency	Percentage%
1.	Ability to describe Competency Standards, Basic Competencies and Indicators	94	94%
2.	Ability to set goals of learning	80	80%
3.	Ability to Analyze Lesson Materials	10	10%
4.	Ability Establish model & learning methods	20	20%
5.	Ability Establish instructional media	22	22%
6.	Ability Determining the scenario or steps in the lesson	8	8%
7.	Ability Determine the devices of evaluation and follow-up in learning	30	30%
Average			37,2

Meanwhile, the teachers' ability to analyze the subject matter is 10%, and their ability to set the model & learning method is 20%. Teachers' ability to set of learning media is 22%. The teachers' ability to determine the scenario or learning steps is 8%, and their ability to determine the evaluation tool and to follow-up it the learning process is 30% (below average) because teachers still have relatively limited knowledge on the skill.

Problems in Developing Learning Devices

The absence of technical guidelines for curriculum preparation.

Teachers have not developed curriculum and syllabus as it should be because there are no technical guidelines for curriculum and syllabus formulation prepared by education affair. So, that teachers can only adapt/adopt curriculum and syllabus developed by curriculum center of research institute and development of education ministry.

Lesson plan preparation was limited to administrative needs only

Lesson plans need to be made to coordinate the expected competencies, standard materials, learning outcomes, teaching scenarios and assessment devices. There are three main

components that must be considered in preparing a lesson plan; they are what will be taught, how to teach it, and how to evaluate student learning outcomes.

Learning materials were not analyzed optimally

Teaching material is a description of the subject matter contained in the curriculum or syllabus. Learning materials can be in forms of information, devices, and text used to assist teachers in carrying out learning activities. The subject matter is everything that must be learned and mastered by students, either in the form of knowledge and attitude. Therefore teaching materials should be designed and organized in such a way from various components to fit the objectives. Designing learning materials is selecting and linking knowledge, facts, imaginations, and assumptions to formulate desired outcomes according to the objectives, sequence of activities required, and acceptable behavior that are useful in problem solving.

Learning media were not properly designed

Media is a component of a learning resource or physical vehicle contains instructional materials that can stimulate students to learn. Learning design is a process of beautifying learning media by adding animations, colors, effect, and so on. It is intended that the learning process becomes more interesting so that learners do not feel bored.

Very poor evaluation devices and limited follow-up evaluation results

Teachers have great role in the success of learners so teachers should evaluate their students in an objective way. The evaluation several functions; they are (a) to measure the level of mastery of an expected competence; (b) as a diagnostic to assist teachers in determining whether learners need to follow remedial or enrichment; (c) to know the weakness of ongoing learning process; and (d) to find out the efficiency, effectiveness, and productivity of learning activities; (e) as a control for teachers and schools on the progress of the development of learners which can also be considered and administrative decisions; (f) for improving, refining, and developing learning program; and (g) to place learners in appropriate learning situations according to their ability. Hence, in designing evaluation device it must be based on basic competence by making a grid problem and problem analysis based on the level of difficulty.

The teachers' need in the preparation of learning devices

The needs of elementary school teachers in the preparation of learning devices are described as the following.

a. Lesson plan

The design of learning program comprises some aspects; they are (1) learning device development including curriculum development, determination of minimum mastery criteria, preparation of annual program and semester program, syllabus preparation, lesson plan preparation, the preparation of student attendance list; (2) learning material development; (3) model and learning method; (4) media development and teaching aids; (5) evaluation device; and (6) development of learning implementation activities.

b. Learning materials

The first thing to do in designing learning material is to collect information related to the material. The information collected can be in the form of hard copy or soft copy. The information can be collected through libraries, internet, and or consultation from various sources. Then the information should be communicated with the vision, mission and subject or department profile, regarding to the importance of the subject (semester credit system per week, the education level, students' background, etc.)

c. Learning method

There are several considerations in determining the learning model, namely: (1) considerations related to the objectives to be achieved; (2) considerations related to learning materials; (3) considerations and aspects of learners; (4) other considerations, namely: (a) whether to achieve the goal is sufficient with only one model and method; (b) whether the specified model or method is considered the only usable model and method; (c) whether the model and method are effective and efficient. Strategy and teaching method is one of the components in the learning system. It cannot be separated from other components influenced by some factors such as learning objectives, teaching materials, and students as participants, facilities, time and teachers. Teacher factor is the most important factors among the existing the factors. Consideration of all factors mentioned above will depend on the creativity of teachers in finding appropriate learning strategies to apply. The dedication and ability of teachers can influence the implementation of learning activities.

d. Media and learning aids

Media is a component of learning resources or physical facilities that contain teaching materials. Learning media is any devices in learning either in form of graphic, photographic, electronic machines and others that can be used to capture, process, and rearrange visual or verbal information. Learning media will be very useful to facilitate the interaction between teachers and learners, to stimulate the mind, feelings, attention and skills of learners

e. The scenarios of teaching and learning

Fundamental issues related to teaching and learning includes the introduction, core and closing activities. Introduction activities cover apperception, motivation and introducing learning objectives. The core activities are related to the implementation of lesson plan, delivering teaching material, using relevant methods, using appropriate visual aids and media, students' participation, and teacher's motivation.

e. Evaluation instruments

Data on student learning outcomes are collected through a process using assessment devices in accordance with the competencies and indicators to be assessed. Evaluation process, which is done at the time of learning activities, measures students' involvement and students' activity. The assessment that can be used is performance test, affective assessment, or assessment with attitude scale. While, the result evaluation is based on students' work, for example, task. Evaluation can be done during the learning process (formative evaluation) and after learning process (summative evaluation).

Evaluation serves to obtain a picture of: (a) students' competency; (b) assisting the teacher in determining the next step; (c) helping learners to understand themselves whether for placement, personality development, program selection; (d) as a diagnostic tool in determining whether learners need to follow remedial or enrichment; (e) to find the weaknesses of ongoing learning process for further improvement; (f) as a tool of consideration and administrative decision-making.

DISCUSSION

a. Curriculum and Syllabus

This study found that the lack of clarity of technical guidelines for curriculum and syllabus formulation has made teachers lack of ability to arrange their own curriculum and syllabus. This is in accordance with what Widyastono (2007) proposed that the educational unit has not been able to prepare its own curriculum and still adopt the curriculum model developed by Indonesian ministry of education.

The use of curriculum (education unit level) is mandated by Law of Republic of Indonesia Number 20 Year 2003, Indonesian Government Regulation Number 19 Year 2005 regarding to national education standard, and the Regulation of Ministry of Education and Culture Number 64 Year 2013 on the basic content of secondary education. The Regulation of Minister of Education Number 54 Year 2013 on competency standards of primary and secondary education graduates, and the Regulation of the Minister of National Education Number 24 Year 2006 on the implementation of standards of content and graduate competency standards for primary and secondary education units. The previous curriculum was centralized, while the current curriculum (Curriculum 2006) implemented around 2009 was decentralized. The educational unit is authorized to develop its own curriculum, embodies and policies of educational autonomy in the context of school-based management where schools are given responsibilities in curriculum development (in the form of syllabi, lesson plan, assessment, and the implementation and management of learning). Curriculum is an outline of subject matter subjects selected to be the object of learning, as well as guidelines for the preparation of textbooks to support the learning process. The ability to design the curriculum only 50%, whereas, teachers should responsible in designing and developing the curriculum. The teacher is responsible for preparing the young generation for future decisions and opening up a new world order. This is in line with the view expressed by Bulie *et al.* (2014), who stated that the responsibility of educators is no longer merely to prepare good mathematicians, good biologists or good historians, however, the school mission is to prepare the younger generation who live in the community in multicultural complex for future decision makers.

The results of this study also found that elementary school teachers still adapt or adopt the syllabus developed by Curriculum Center of Ministry of Education. Syllabus which should be developed by the teachers through the subject teachers consultative forum or teacher working group, or by other means teachers are still very limited. Similarly, the results of Nunan's (1993: 3) and Bell (1983) state that few teachers are able to design their own syllabus. Nunan (1987) reports that some teachers believe that syllabus development should be done by people with special skills. Teachers should regard the syllabus as open and negotiable. Indeed the syllabus should be negotiated by teachers and their students based on the needs analysis of learners. Whereas according to Nunan (1993) refers to Bell (1983) suggests that the teacher is a

consumer syllabus either designed by themselves or by others because teachers are relatively free to design syllabus based on their teaching program (Brindley, 1984).

b. Lesson plan was made to fulfill administrative needs only

The results showed that the ability of teachers in designing lesson plan was still very low that is 37.2 %. Other ability which is still below the average are ability to analyze the subject matter (10 %); ability to set learning method (20 %); ability to set learning media (22 %); ability to define scenarios or learning steps (8 %); and ability to determine evaluation device and to follow-up evaluation results (30%). In fact, designing lesson plan is the main task of the teacher. Teachers as planner should be able to diagnose the needs of, to formulate learning objectives and activities, to define strategies, and to determine appropriate learning devices and evaluations. The results of this study are supported by Mirascieva (2010) who states that the weaknesses of planning on in primary schools learning today are in the form of (1) interest and needs of students are neglected; (2) formalism in students' knowledge; (3) students are passive (in listening positions); (4) teachers are dominant in the teaching process; (5) ignoring the individual's abilities (the absence of differentiation of the educational process); (6) there is no direct involvement of parents and others directly in teaching.

Furthermore, according to Mirascieva (2010) that for the sake of proper planning in elementary school it is important to integrate planning and teaching. This shows the existence of the integration between teaching and other fields. Choice of topics, methods, creativity in the form of tasks, requirements of all activities that should make students, suggestive procedures for task execution and coordination in order to achieve the target.

The analysis of learning materials aims to provide structured and sufficient content according to the learning scenarios developed. There are various types of instructional media devices, however, not all media devices are effective in all situations, so there is a need to redesign the appropriate learning content (Paulins, *at.al.* 2015). In addition, aspects of class composition are also taken into consideration in the preparation of the lesson plan, including class size and distribution of class member.

CONCLUSION

Based on the results of the research the conclusions can be drawn as the following:

1. The ability of elementary school teachers in preparing learning devices such as curriculum, syllabus, lesson plan, teaching materials, instructional media, and evaluation devices have not been maximized. Although the existence of learning devices in quantity has been in accordance with the provisions of national standards.
2. The problems faced by elementary school teachers in preparing learning devices can be in form of (a) unavailability of clear technical guidance prepared by education system regarding to curriculum and syllabus formulation; (b) lesson plan is limited to administrative needs; (3) learning materials have not been optimally analyzed; (4) instructional media has not been designed properly; (5) the determination of evaluation devices and follow-up learning is still very limited.

3. In the preparation of learning devices that teachers should understand covers: (a) the design of lesson planning; (b) the design of learning materials; (c) the development of learning methods; (d) developing media and teaching aids; (e) the development of learning scenarios; and (f) the development of learning evaluation devices.

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