Journal of English Language Teaching and Literature (JELTL) P-ISSN 2623-0062
Volume 4 No. 1, February 2021 E-ISSN 2622-9056
Universitas Banten Jaya

THE ANALYSIS OF TEACHER'S LESSON PLAN IN IMPLEMENTING SCIENTIFIC BASED LEARNING FOR YOUNG LEARNER IN PRIMARY SCHOOL

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ABSTRACT

Lesson plan is an important for teacher as part of guidance and instructional design which consist of necessary aspect such as (goal, objectives, media, and activities until assessment). This paper examines or investigation of the aspect taken in the lesson plan in implementing scientific approach. Lesson plan written by English teacher in primary school, were analyzed using qualitative method and descriptive case study as its framework. The data were obtained from document analysis. Theories from Brown (2001) and Richard (2001) were adapted in analyzing the documents. The result showed that the lesson plan contained the necessary aspect; the activities indicated scientific based learning, teacher were aware of the importance of designing English lesson in which all five aspect (goals, objectives, activities, media and assessment), teacher were able to make goals which measurable, objectives were corresponding with receptive goal, media were practical, effective, efficient, and appropriative for children However, improvements are needed pointed out from this study in accordance to the teacher's implementation of scientific based learning to sixth students of primary school level, there it seems that scientific based learning could not be effectively applied by the teacher but it somehow gave the some positive contribution to the student participation and critical thinking as in questioning stage and communicating stage.

Keywords: lesson plan, scientific based learning, young learners

INTRODUCTION

Current curriculum used after 2006 existing is 2013 revised. This curriculum is based on the government long term plan RPJMN 2010-2014 in education sector and based on the presidential instruction No.1 2010 stating that it aims to fostering the implementation of national development priority. The curriculum stresses on the active learning based on the cultural values to promote competitiveness and national character.

The curriculum competency is based on SKL with content standard, assessment

and process. This curriculum encourages the use of Scientific approach with 5M in Bahasa: mengamati, menanya, mengumpulkan informasi, menalar, dan mengkomunikasikan . To accommodate the demand of curriculum 2013, scientific approach is assumed to be an appropriate approach to teach English for primary student level. Scientific approach is a model of approach that accompany student be a creative and innovative in their learning activities.

Those are details steps of Scientific based learning firstly Observing : students observe the exposed phenomena with their sense, with and without tools to find the knowledge gap Questioning : students formulate the unknown phenomena related to their observation Collecting information/data: students gather data to answer the questions, by doing some experiments, reading some source, interview and other related activities, Associating: students use the data they have previously collected to answer the questions and making some inferences which leads to conclusion making Communicating: students present the answer in spoken/written language. Creating: students apply their knowledge to create a product, model, or idea for solution in tangible or intangible products.

There are conducted to get factual, conceptual, procedural and metacognitive knowledge and the last achievement students can produce something new creativity related the material. Concurrently, some attempts have been made in defining and structuring scientific approach to language teaching. Scientific approach or learning science based learning that highlights personal experience through observing, associating, questioning, concluding and communicating. Priyana (2013) argued that scientific approach is actually a scientific method step based classroom since it is a procedure of teaching and learning steps design to help students attain their knowledge about the language, communicative competence, and attitude in classroom.

Literature Review

1. Concept of Lesson Plan

Lesson planning is at the heart of being an effective teacher. It is a creative process that allows us to synthesize our understanding of second language acquisition and language teaching pedagogy with our knowledge of our learners, the curriculum, and the teaching context. It is a time when we envision the learning experience should fit together to make that vision a classroom reality.

A set of written steps about what they are going to do in classroom called lesson plan. Harmer (2007) stated two important points why to plan a lesson. First point is, lesson plan is guide for teacher to refer to. Creative changes may be done to adapt with what actually happens in the classroom but in the end lesson plan is still a guide for teacher to fall back on. Second, it relates to teacher relationship with their students.

Teacher who has done planning beforehand suggest their commitment toward teaching and will get positive respond from students. Additionally, Brown (2001) explained, lesson plan as "asset of activities which "represent" step a long a curriculum before which and after which you have a hiatus (a day or more) in which to evaluate and prepare to the next lesson. The lesson planning process allows teachers to evaluate their knowledge regarding the content teach (Reed & Michaud, 2010).

A teacher with a plan, then, is a more confident teacher (Jesen, 2001). The teacher is clear on what needs to do, how, and when. The lesson will flow more smoothly because of the information gathered and details decided beforehand. The teacher will not waste class time flipping through the textbook, thinking of what to do next, or running to make photocopies. Some teacher feels that lesson planning takes too much time. However, lesson plans can be used again, in whole or in part, in other lesson months or years in the future (Jensen, 2001). Many teachers keep files of the previous lesson they have taught, which they then draw on to facilitate planning for their current classes. In other words, lesson planning now can save time later.

Lesson plans can be useful for other people as well (Jensen,2001). Substitute teachers face the challenge of teaching another teacher's class and appreciate receiving detailed lesson planning to follow. Besides, the lesson plan can also document for administrators the instruction that is occurring. If a supervisor wants to know what was done in class two weeks ago, the teacher only refers to that day's lesson plan. Finally, lesson plans can serve as evidence of a teacher's professional performance. Teachers asked to include lesson plans and other material as part of portfolios to support their annual performance evaluation.

A teacher is applying for new jobs to submit a lesson plan as part of their job application so that employers can get a sense of their organizational skills and teaching styles. The lesson planning process and the role of highlight the plan before, during, and after one's lesson.

2. Aspect of Lesson Plan

There are several important elements that should be included in lesson plan (Brown, 2001)

1. Goals

Goal is a general changes that is hoped to be achieved by learners with in completing a course or program and are derived from need analysis done to gather information needed related to the learners (Richard, 2001). Goal for primary school level should indicate children's characteristic, and more necessary they should be achievable for young learners.

2. Objectives

Objectives contain what teacher wants the students to accomplish at the end of the lesson (Brown, 201). Objectives are often overlapping with goal, in some lesson

plan. Richer (2001) has made clear determined of objectives and goals. The way expressing objectives is known as behavioral objectives which".. Take the idea of describing learning outcomes, by further optimal the learning objectives can be done by including the aspect of "ABCD" as proposed by Mager, Findlay and Nathan (Richard,2001). (ABCD) stands for Audience, Behavior, Condition, and Degree.

3. Activities

Learning activities made for young learner need to flow these principles: concrete to abstract, receptive to productive skill, personal to impersonal and controlled to less control. Moon (2000) also emphasizes some other essential principles that should be considered before designing learning activities.

4. Media

The use media of learning should fulfill three principles: practicality, appropriateness, and effectiveness. Media should be easily prepared, be easily used and operated in classroom situation, attract children attention, be meaningful and authentic, and improve children's language skill.

5. Assessment

For analyzing, the aspects of assessment used in the lesson plan, principle of assessment proposed by Cameron (2001) were explained. First step the assessment should be able to measure what is formulated in the objectives regarding what and how well students should demonstrate certain action verb. Secondly, the assessment should be congruent with activities and using familiar activities from their classroom experience. Finally, assessment for young learners should be seen from learning centered perspectives which focus on social interaction. So that the assessment should be focuses to be done in group work or through oral assessment.

Scientific based learning at 2013 curriculum in Indonesia views the scientific approach as teaching adapted from principles of discovery established by Dyer, Gregersen & Christensen (2011). According to Dayer et al. (2011), most successful innovators, entrepreneurs, and executives show similar behavior involving five primary skills: observing, questioning, experimenting, associating, networking, or communicating.

Curriculum activities will provide a framework that helps teachers accomplish whatever combination of teaching activities is most suitable in their professional judgment for a given situation that is a framework that helps the students learn as efficiently and effectively as possible in the given situation. Several integration of curriculum 2013 through a scientific approach to EFL classroom practices. Scientific based learning activity in language teaching

Table 1: Scientific-Based Learning Activity in Language Teaching

STAGE	LEARNING ACTIVITY
Observing	Students see, observe, read, and listen to the teacher with or without media (listening-reading)
Questioning	Students deliver some factual questions related to the observation and define some questions, hypothesis (speaking-writing). The teacher will guide this activity until it becomes a habitual (independent) activity for students
Experimenting	Student collect data through available resources such as document, object, book, internet media, experiment (reading-listening)
Associating	Students analyzed the data by forming categories and relationship within them (reading) Students conclude the result of data analysis started from the data (reading-writing)
Communicating	Student present their conceptual understanding regarding the conclusion they have made in the form of oral and or written text, chart, diagram, or picture (speaking writing) The student begins to write a text they have learned through guided or free writing task (writing)

Syamhadi (2013)

4. **How young learners learn**

The learners will engage in enjoyable activities for young learners. The first is, how do children learn the language? It will focus on the characteristic of young learners and their learning style that affect second language acquisition. The theories applied in TEYL classroom situations.

A. How Children Learn

Children are active learners and thinkers (Piaget, 1970)	Children construct knowledge from actively interacting with the physical environment in developmental stages. They learn through their action and exploration
Children learn through social interaction	Children construct knowledge through other people,

(Vygotsky, 1962)	through interaction with an adult. Adult/teacher work actively with children in the zone of Proximal development (ZPD)
Children learn effectively through scaffolding by an adult (Bruner, 1983)	The adult's role is significant in a child's learning process. Like Vygotsky, Bruner focused on the importance of language in a child's cognitive development. He shows how the adult uses "scaffolding" to guide a child's language learning through finely-tuned talk (Cameron, 2001)

Based on young learners' characteristics, teaching English in Elementary school is not easy because the young learners do not know the reason to learn English. The teacher has to understand the characteristics of young learners and have to manage the classroom. Then, the teacher is required to teach well and design the material of teaching-learning appropriately. The material design for language teaching is the essential thing for learners' success in mastery of English. Most students have difficulties in pronunciation because of a lack of vocabulary; they should be taught vocabulary word by word until they pronounce correctly. Additionally, give fun activities such as games and practice or watching the video.

According to Piaget, as children grow and mature, they pass through four stages of cognitive development: sensor motor, preoperational, concrete operational, formal operational. Younger children deal with their world in more concrete. Children used their mind to think as concrete as possible, so that in lesson plan should use action verb related to concrete media. There are real activities English for young learners, as below Activities for young learners

Research Methodology

This study used qualitative research and applied descriptive study as its framework. Qualitative research was used to its nature which provide actual setting as the direct source of data (Bogdan and Biklen,2006). They also stated that descriptive study views that everything is potential to provide a clue that reveals more comprehensive understanding. There was teacher from national elementary school in Jakarta chosen as respondent of this study. The teacher taught in sixth grade.

Lesson plan consist of each meeting. The content of scientific approach lesson plan used the theories of Brown and Richard to analyze the lesson plan. The rubric used to analyze the data presented in the table below:

Table 1

The Rubric to analyze the lesson plan:

Aspect of lesson plan

Aspects	Characteristics
1. Goals	Achievable
2. Objectives	Congruent with goals
	Containing "ABCD" aspect
	Containing 3 learning domain
3. Activities	In lines of objectives
	Scientific approach Characteristic
	Observing
	Questioning
	Collecting
	Associating
	Communicating
	Creating
Media	Practicality
	Appropriateness
	effectiveness
Assessment	Congruent with objective and activities
	Using familiar activities
	Retaining the perspectives of social-interaction

Result and Discussion

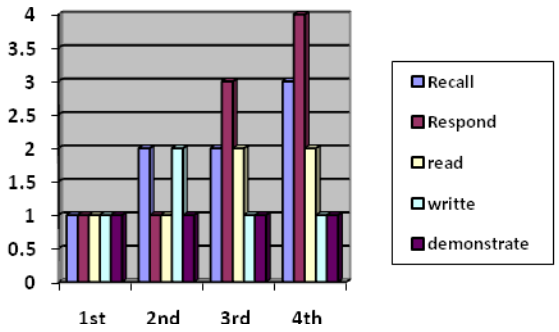
Lesson plan were analyzed based on theories proposed by Brown (2001), there are five aspect that were analyzed namely: goals, objectives, learning activities, media and assessment. Furthermore, those aspects were analyzed to find out to what extent the aspects have reflected the implementation of theme based teaching and have been able to students learning achievement.

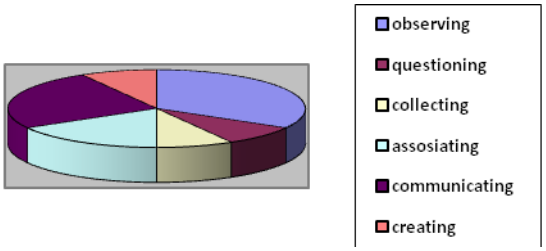
1. Goals

The finding of the study showed that the instructional goals were achievable for young learners. It is reflected by the measurable verb used in the instructional goals which were taken from Bloom Taxonomy and Karthwol's revised.

Chart 1

The operational verb used in instructional goal





The chart shows the operational verb used in lesson plan and the frequency of their occurrence. There are five action verb measurable, one verb to demonstrate lagu ondel-ondel as local wisdom difficult to assess how student sing ondel-ondel . it could be change base on material involved.

2. Objectives

In this study, three aspect of learning objectives were analyzed: ABCD (Audience, Behaviour, Condition and Degree) and existence of three learning domains (cognitive, affective and psychomotor).

Goals	Objectives
Recall	Recall future tense
Respond	Respond instructional heard
Read	Read aloud as well as
Write	Write future tense
demonstrate	Sing ondel-ondel song

It could be noticed that both goal and objectives used similar action verbs. Teachers could be concern on how to design objectives which are congruent with goal by using equivalent action verb in create goal and objectives in their lesson plan. The next aspect is “ABCD” features

The summary of “ABCD” aspect on Objectives

Objectives with complete “ABCD” aspects	In the end of lesson students are able to recall future tense(B) after being shown pictures (c) using correct pronunciation 2.in the end of the lesson, students (A) are able to write future tense sentences (B) based on flash card and video (C) correctly
Objectives without complete “ABCD” aspect	In the end of the lesson, students (A) are able to read text (B) correctly (D)

	In the end of the lesson students are able to demonstrate sing ondel-ondel song as local wisdom

From the above table it can be seen that the objectives emphasize only on cognitive domain. Psychomotor domain was sustained at some point through demonstrate sing ondel-ondel song. However, cognitive domain still active than psychomotor domain less portion.

The summary of activities that reflected scientific based learning

STAGE	LEARNING ACTIVITY
Observing	Students see, observe, read, and listen to the teacher with or without media (listening-reading)
Questioning	Students deliver some factual questions related to the observation and define some questions, hypothesis (speaking-writing). The teacher will guide this activity until it becomes a habitual (independent) activity for students
Experimenting	Student collect data through available resources such as document, object, book, internet media, experiment (reading-listening)
Associating	Students analyzed the data by forming categories and relationship within them (reading)
	Students conclude the result of data analysis started from the data (reading-writing)
Communicating	Student present their conceptual understanding regarding the conclusion they have made in the form of oral and or written text, chart, diagram, or picture (speaking writing)
	The student begins to write a text they have learned through guided or free writing task (writing)

3. Activities

How the activities designed which exemplified scientific based learning characteristic is presented. The activities designed by teacher reflected most of characteristic of scientific based learning.

Those activities emphasized on observing, questioning, experimenting, assessing, and questioning. are students Teachers demonstrating their role to monitoring students progress by giving feedback support and motivation.

The characteristic which were present less frequently responsibility in completing the task and production of learning outcomes in form of something to be displayed, learning activities should also fulfill the principles of sequencing activities. the table below present how the activities designed by teacher met the principles.

Principles of sequencing activities	activities
Concrete to abstract	Teacher showed flashcard first before asking students to do the task
Receptive to productive	Built student knowledge first by drilling the expression
Personal to impersonal	teacher designed personalized activities for the students since they were asked their hobby
Controlled to less controlled	Teacher give clear guide of how the students should complete the task

Regarding the activities, well sequencing activities were successfully created in accommodating young learners characteristics.

4. Media

Learning media used by English teacher is flashcard and picture, through the video. To support the learners characteristics use practical to use in classroom. The media were also need way to support the improvement of students' language skill. Instructional activity, to accommodate not only students visual intelligence. Teacher shown visual support Teacher Applied to help students with repetition and oral practices, teacher used flashcard and picture; changes concrete through realia, express their concrete operational function of their learning English.

5. Assessment

It is found that the assessment derived from its respective activity and objectives. It found assist were designed to measure what stated in objectives. The assessment designed also utilized interaction and helps other. Most of assessment made use to accommodate social interaction. On other hand, there were still several assessment in which students did the task individually so that they did not reflect the learner centered.

Arrange the jumbled word, look at the pictures and write a short paragraph about the places that Andi will visit on his next holiday. (Concept, Knowledge, Practical, Behavior).

Conclusion

In conclusion, there are several points pointed out from this study in accordance to the teacher's implementation of scientific based learning to sixth students of primary school level, first, it seems that scientific based learning could not be effectively applied by the teacher but it somehow gave the some positive contribution to the student participation and critical thinking as in questioning stage and communicating stage. Scientific based learning activities also seem to positively affect student confidence in using their target language.

Though the accuracy and fluency were still average. It is recommended that the teacher should improve teacher improve in applying scientific based learning in their lesson plan to classroom practices by effectively using the time creatively developing structure task that make the students encounter the process of scientific based learning.

It can be conclude that teacher were aware of the importance of designing English lesson in which all five aspect (goals, objectives, activities, media and assessment), teacher were able to make goals which measurable, objectives were corresponding with receptive goal, media were practical, effective, efficient, and appropriative for children. The teacher found has been able to implement scientific based learning in some aspect, especially in observing, experiencing, and questioning. Using scientific based learning could be improved student critical thinking and creativity.

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