IDENTIFYING COMPETENCE NEEDED BY SECONDARY SCHOOL TEACHER IN DESIGNING INSTRUTIONAL

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Abstract

This paper aims to identify teachers' competence on instructional design. The study was conducted in south sulawesi province using mix methodology approach. Eight respondent consists of school supervisor and teacher trainer to be interviewed. The result showed that there three major competencies needed by teacher to design their instructional, such as pedagogical, extensive knowledge, and technological competence.

A. Introduction

Teacher is the main decision factor on teaching and learning succeed. Because, he brings the direction that will be achieved on a teaching and learning process. Regarding to the study of professor Jhon hattie cited by World Bank found that teacher influences the students' achivement around 30 percent (Chang, 2010). Further, effective teacher affects the student achivement significantly (Hill, Rowan, & Ball, 2005; Rockoff, 2004; Stronge, Ward, & Grant, 2011). It signs that teacher is the core of the teaching and learning through instructional design.

All this time, instructional design was made only for adminstrative requirement for teacher that needed when supervised. It was not not for instructional guidance in the classroom. Consequently, instructional design was made ineffectively. In fact, mostly teacher just copy and paste their instructional design from their friends. The condition above is justified by Jhon, (2007) on his article about instrutional design of pre-service teacher by stating a question "why instructional design is difficult for teacher"?. The similiar opinion by Zais, (1976) that teachers do not have orientation to develop curriculum or instructional design on their classroom.

The effectiveness of teaching and learning is supported by teacher knowledge and skill in designing instruction. Instructional design is the description of the teaching and learning which will be held in classroom. Effective teaching is determined by a good planning (Stein, Carnine, & Dixon, 1998). Instructional design could bridge the students' need and student achivement (R.Nacino-Brown, Oke, & Brown, 1982; Wette, 2010), social and cultural aspects around the school (Kurt D. Squire, James G. Makinster, Michael Barnett, April Lynn Luehmann, & Barab, 2003). On the other means that, a teacher may plan and design instruction.to be better, moren interesting and effectively by considering the learner charateristics and their environment.

Instructional design not only for student, but also provides a chance for adult people who teach them (Ball & Cohen, 1996; Davis & Krajick, 2005). Previously, teacher accustomed to teach the provided material, involved textbook. Teacher has long time depend on the textbook as their guidance in teaching (Freeman & Porter, 1989; Sosniak & Perlman, 1990; Stodolsky, 1989). So that, instructional goes based on textbook author, without planning and designing the instruction.

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B. **Competences in Designing Instructional**

Performing the effective instruction needs a well curriculum planning and development. It will be more valuable if adapted with local context to fulfil students' needs and their charateristics (Parkay, Anctil, & hass, 2006; Zais, 1976). Likewise, in context of planning and development of the classroom curriculum belongs to the teachers' responsible (Ho, 2010). Because, he is an implementer of curriculum that has been developed into instructional design.

Instructional design is the description of the teaching process including several aspects. As stated by Rio Sumarni Shariffuddin (2007) that instructional design is the systematic to interpret the teaching and learning theories in planning teaching material and activities. The sequence of instructional material, the effective use of instructional material regarding to the students' need and characteristics Witzel dan Riccomini (2007). Thus, instructional design refers to theori of

instructional design, models and theories in instruction, material selection which fix to the learners' need and characteristics.

To performing the good intsructional design as described above, teacher must have competencies that related to the instructional design. Regarding to the several studies which were conducted, found competencies related to the instructional design, as follows:

1. Pedagogical Competence

Pop & Mazilescu (2012) conducted a studied on the ability of English teacher in designing instruction, found that the importance of pedagogical competence for teacher. Because its regarding to the instructional material and content, such as topic selection, stucture, content, activities and source of teaching.

In line with, (Ho, 2010) conducted his study on teachers' decision-making in developing curriculum and instruction, found that decision-making is important on capturing and understanding the whole aspects related student development on instructional design.

2. Extensive Knowledge Competence

According to Wette (2009) that there are several competencies needed in designing instructional, such as social competence, skill and extensive knowledge to translate curriculum into instructional planning, to find out the obstacles and sources on instruction and relating to the students'need and interest.

In addition, Holiday-Goodman, Black, & Powers (2010), Echeverri et al. (2010), cultural competence also needed to design the instruction in order to develop multicultural issues. Integrating local phnenomenom to fit the needs of student, teacher, local context, and teachers' pedagogical values (Kurt D. Squire, et al., 2003; Rhodes & Roux, 2004). Through cuktural competences will enrich the instructional design with local context.

Further , Crisan & Enache (2011), found that instructional design should consider the market oppotunities though implementation of the modern instructional material, method and media. The implementation of the modern instructional material, method and media on their instruction is the way to familiarise the student to the future real life. It signed that instructional designer must have a future vision oriented.

3. Technological Competence

According to (Fullan, 2007) stated integrating ICT into school activities support and motivate teacher on their work to overcome the lack of resources, isolation, wasting time, and other encountering obstacles. In addition, teachers used ICT in a wide range for teaching, administration, professional development and personal use (Mwalongo, 2011). These are the benefits for teacher toward the integration of the ICT in classroom activities

On the student side, Law (2010) conducted a study on integrating Information Communication and Technology (ICT) and pedagogical in 22 countries, found that teachers' perception on integrating ICT in teaching and its planning plays significant influence toward the students' motiovation and achievement. attracting students' attention, facilitating students' learning process, helping to improve students' vocabulary knowledge and promoting meaningful learning (Yunus, Nordin, Salehi, Sun, & Embi, 2013). Improvements the clarity of information provided to students and more chance to the students involvent at the in front of the class activities(Beauchamp & Kennewell, 2008). Therefore, the implementation of the ICT into the instruction and its planning gives much advatages for the students' motivation and achievement.

C. Problem Statement

Lack of knowledge and skills of teachers in making instructional design resulted in most learning design made just to fulfill the administrative requirements for a teacher when supervised by the school supervisor. It is not designed to be a guide to the instructional process in the classroom. As a result, learning design made

ineffectively, even some teachers take simple way by "copy and paste" of the instructional design made by his friends from other schools. Therefore, the study aims to identify the competencies that required in designing instruction.

D. Methodology

This study will use mixed methodology with explaratory sequential design, where data collection and analysis is carried out in two stages, starting from the first phase of qualitative data collection and analysis which will be used to design a questionnaire, and then a second phase of quantitative data collection and analysis (Creswell, 2010). As for sampling, will use competency models that are reserved by Spencer and Spencer (1993) and Marelli et al (2005). They added that the qualitative data was conducted interviews for the schools supervisor and teacher trainer. While the quantitative data obtained from a questionnaire distributed to teachers in schools.

The study involved 8 respondent to be interviewed. This study used snowball sampling. To ensure the confidentiality of the identity of the respondents, the researcher used coding like P/L/01 to the respondents and P/L/01 to interview respondents. "P" is a school supervisor code, "GI is the teacher trainer code", "L" is Laki-laki or sex. While 01 refers to the respondent. To analyze of data, the researcher used thematic analysis. This study will perform the qualitative data only as a meta data that will be used to formulating questionnaire.

E. Finding and Discussion

Data analysis resulted in three categories of competence, such as: pedagogical competence, subject expert competence, and technological competence. The categories develoved from the analysis were taken from two sources of data, schoool supervisor and teacher trainer.

Competence In Pedagogic

P/L/01 said that there are many aspects should be mastered in designing the instruction. He added that the whole of the cycle of the learning process. P/L/01 opinion was supported to by GI/W/03. G/I/W/03 claimed that instructional design

consist of the implementation of the teaching and learning theories. GI/W/03 mentioned that:

.....planning a good intrsutional design will give an interesting teaching environment and positive impact to students..through a weel instructional planning, teacher will be easier to arrange the teaching method and material... .in selecting the teaching method and material, teacher should consider the learner characterics..

P/L/02 complete the GI/W/03 opinion in more detail explanation. He expressed that instructional design is the pocess of thinking toward how the efective teaching will be taking place. P/L/02 said that:

..........planning is a process or the way we are thinking to reach the result the we expected before. In addition, it becomes an anticipation and approximation toward the process that will be apllied during the teaching, to acquire the the learning objectives. Therefore we should implement the teaching principles throuh teaching activities, planning it self, implementation, and evaluation in order to achieved the learning objectives that we had been decided before

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Extensive Knowledge Competence

P/W/05 stated that teacher should posed the a lot of knowledge in order to enrich their instructional design. P/L/04 added that the more knowledge or information of the teacher owned the better planning will be produced. P/L/04 stated that:

......as a teacher profession...we have to know more than our students...we have to know a lot things which can be derived from many sources, such newspaper, television and internet. to increase our knowledge...and ithink it will support in my teaching and its planning..

GI/L/07 stated that instrudtional planning should be contextually. It means that teacher plans the instruction based on their local context. P/W/08 exlored more elements that related to the local context. P/W/08 expressed that:

......on the latest curriculum recommends teacher to integrate the local content into the instructional planning. Because, our country has a lot of culture, every tribe have their own culture, language, and local wisdom. These are uniques things, that could not be found in other countries. Therefore, this curriculum provides a space for local content integration. For example, i'm english teacher...i can use the folklore related to my tribe which is familiar for the my students, then i presented in english as reading material...

Technological Competence

Acccording to GI/W/03 that the ability to use the ICT devices is a must for teacher. Through the use of ICT would make teacher easier in designing their instruction. P/L/01 expressed that the integration of ICT in teaching would increase the students' motivation. P/L/01 stated that:

......now, there are some ICT devices that can be used to help us in planning our instruction and it help us to perform the interesting presentation of teaching material through LCD..beside it, we can download any interisting material that related to our subject...

GI/L/05 stated that it was useful to use of ICT devices in teaching. It makes the teaching more effective and efficient. GI/L/05 shared his experience that:

.........when i started to use laptop on instructional process and its plannig, i fell interesting and very helpul, when i formulate my instruction. It helps me to avoid wasting time, because the material presented on LCD and it is interesting for student.

The tables below is the result of the interview analysis using thematic analysis.

No	consept	Theme	Sub Theme	Code
1	Pedagogy	Knowledge and skill	• Mastering • Decision Making • Providing	• Ability to design learning • Determine the interesting topics • Determine the students' preferred material • The method suitable to characteristics of students • Ability to use teaching methods • Determine the instructional media • Assessment based on the students' ability • Assessment based on material that has been taught • Provide teaching source • Select the teaching materials • Creative and innovative • Understanding the psychology of children
2	Local Context	Local content	• Local culture • Local Wisdom	• Utilize the environment • Very close to the student • Easily understood students • Often some students • Folklore • Local wisdom • Local language • Proverb local area • Values legacy • Habits educational area • Something Unique
3	Curriculum Competence	Planning and design	• Analysing • Interpretation	• Look at Syllabus • Objective of the national education • Elaboration of national education goals

				• Understand the national education goals • Special purpose • Basic Competency (KD) • Competency Standards (SK) • Indicators
4	Learner characteristics	Individual differences	• Students' Background	• Students' characteristics • Level of Knowledge • Family Background • Level of material comprehension • Level of emotions • Culture Background • Religion Background • Interests
5	Technological competence	Using ICT	• Effective • efficient	• Using ICT devices • Accessing Internet • Designing material by ICT • Performing material by LCD

F. Conclusion

Based on the findings of the study, it is found that the pedagogical, extensive knowledge, and technological competence as the most needed and supporting competence on designing the instruction. Majority of the respondents believes that those competence will guide teacher in formulating a well designed intruction. Therefore, a well instructional designed will guide teacher toward the sucsessful teaching by reaching their teaching aims effectively and efficiently.

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