

DEVELOPING ENGLISH INSTRUCTIONAL DESIGN BASED ON HIGHER ORDER THINKING SKILLS (HOTS) AT SMK IT AL-QIMMAH

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Abstract

This research aimed at designing an English Instructional design based on higher-order thinking skills. The type of this research was research and development (R&D) which refers to Borg and Gall development model. The subject of this study was English teacher at the Al- Qimmah Integrated Islamic Vocational School in the school year 2021/2022. In terms of data collection techniques, the researcher used interview and questionnaires, while the data analysis techniques in this study are qualitative and quantitative. From the data analysis, the following results were obtained: Al-Qimmah Integrated Islamic Vocational School uses the 2013 curriculum, but the learning implementation plan used is still not based on higher-order thinking skills. To obtain valid data, a validation process is carried out by the validator on the developed learning implementation plan. Based on the results of the study, it can be concluded that the learning implementation plan meets the valid criteria with an average value of 4.5.

Keywords: Development, English Instructional Design, HOTS

INTRODUCTION

The success of the learning process on the expected learning objectives will determine the success of the learning process in the classroom. Without a good learning model and the desired learning objectives, the teacher, as the executor of the learning process, will experience difficulties in carrying out their main tasks and functions in carrying out learning activities to print quality and competitive educational output. Learning design has a significant impact on students' understanding of knowledge.

Therefore, to improve student performance, teachers need to understand the evidence base that helps develop student practice through concepts related to learning design, especially those related to cognition. The 2013 Curriculum Designs Learning gives students roles as subjects who can actively seek, process, and use knowledge. Students must be able to apply knowledge and be encouraged to work on solving problems, finding things for themselves, and trying hard to realize their ideas.

HOTS became more urgent when the partnership for 21st-century skills (2011) developed a set of skills known as 21-century skills. Creativity, critical thinking abilities, and problem-solving are just a few of the 21st-century skills. These abilities are sometimes referred to as the range of HOTS. The requirement for these abilities has consequences for the need to increase educational quality. When referring to these skills, HOTS is the answer to responding to challenges in 21st-century learning (Surawati & Sudyana, 2019, p.46).

Learning to attain HOTS requires strong collaboration across all education players. Beginning with the curriculum as the fundamental base of educational activities, HOTS must apply comprehensively and contextually. For students to achieve the HOTS level, it is necessary for the curriculum and all of its components, including the central characters, especially teachers, to keep improving their learning strategies. But in practice, many teachers continue to pay little attention to creating learning plans based on HOTS. It is evident in the creation of learning designs, indicators, objectives, and learning activities and the execution of the learning activities. Teachers should create and assemble lesson plans to help students develop and transform their learning from Lower Order Thinking Skills (LOTS) to HOTS.

AL QIMMAH INTEGRATED ISLAMIC VOCATIONAL SCHOOL is a vocational secondary education unit. SMK IT AL QIMMAH is located at Jln. Lendang Belo, Lando Village, Terara District, East Lombok Regency, West Nusa Tenggara Province. Based on the results of interviews and observations that researcher have done with English teacher at IT Al Qimmah Vocational School, the researcher found that teacher have not fully developed a lesson plan that will be used when teaching even though the project is the implementation of learning must be prepared and developed by the teacher because the lesson plan is the primary weapon for an educator in carrying out

the learning process, where the lesson plan will regulate and assist all activities in the teaching and learning process.

Another thing that the researcher also found from the analysis of learning tools that the researcher had carried out was that there was only a learning implementation plan in the previous semester. The teacher still had not made and developed a new learning implementation plan, especially one based on higher order thinking skills and active verbs contained in the program. The implementation of learning is also still at the C2-C3 level. In addition, from the results of teaching assistance carried out by the researcher for two months, it was found that the thinking skills of some students were still at the level of lower order thinking skills. This was evidenced when the teaching and learning process in the classroom had some students who were still not used to critical thinking, were active in class, and were creative both in decision-making and problem solving.

Developing students' HOTS, especially in English, is certainly not instant. HOTS is born from a continuous process and is not only result-oriented. It takes a constant and consistent method to train and familiarize students. Therefore, as one of the critical role holders in teaching and learning activities, a teacher must be able to facilitate students to become good thinkers and problem solvers. Students will not be able to explore and express their ideas if their HOTS is assessed at the end of learning in daily or semester exams without involving them in the learning process. As the holder of an essential role in the teaching and learning process, the teacher must be able to design it.

Based on the importance of developing English learning tools in the Design of a HOTS, along with its constraints and research gaps, this study will focus on discussing the development of English Instructional Design in the Design of a Higher Order Thinking Skills (HOTS) based learning implementation plan with Research and Development (R&D) methods with Borg and Gall research designs. Based on the background presented, developing and encouraging students to have higher-order, creative, and independent thinking skills in problem-solving is necessary. The unavailability of English language learning tools based on HOTS at SMK IT Al Qimmah, so the idea emerged to conduct development research with the title "Developing English Instructional Design based on Higher Order Thinking Skills at SMK IT AL Qimmah."

LITERATURE REVIEW

1. Understanding Instructional Design

Smith and Ragan (1999) defined instructional Design as the structured and deliberate process of learning and teaching concepts into designs for teaching materials, practices, references, and evaluation (Ramasari et al., 2019, p.14). Systematic planning is critical regardless of the approach or learning material utilized in its execution. Before implementation and reflection, systematic preparation is essential, and it should be adequately informed, directed, and structured by the instructional design process.

2. Understanding Lesson Plan

A learning action plan is a meeting-by-meeting classroom activity plan. The syllabus creates the learning implementation plan, which directs students' classroom activities to attain essential competencies. Every instructor must develop a comprehensive or even methodical strategy for implementing learning. So that learning is engaging, motivating, entertaining, demanding, and efficient. It stimulates students to engage actively and gives enough room for initiative, creative thinking, and integrity based on students' talent, passions, and physical and mental development. According to Daryanto (2014), a learning implementation plan is a form of procedure and management whose learning aims to reach a primary competency line in the standard content. The development of learning implementation plans can be carried out by teachers individually or in groups in subject teachers' meetings under the coordination and supervision of supervisors or the education office (Cahyono et al., 2020, p.20)

3. Understanding Higher Order Thinking Skills (HOTS)

According to Ahmad et al. (2017), HOTS is a crucial element in education with its advantages in improving students' learning performance, reducing weaknesses, interpreting, integrating, problem solving, and managing information, thoughts, including daily activities (Kwangmuang et al., 2021, p. 3).

Resnick (1987) states that HOTS is a complicated cognitive process that involves the most basic mental functions in summarizing the content, drawing conclusions, generating representations, analyzing, and building links (Subagio, 2020, p. 32).

Based on some of these perspectives, it is possible to conclude that HOTS are thinking skills beyond just remembering, restating, and referencing. As a result, HOTS can think critically while assessing information, being innovative, and solving issues.

RESEARCH METHODS

The type of research used in this research is research and development (Research and Development). This research has been conducted at SMK IT Al Qimmah. This research was conducted from April through August 2022. The subject of this study was an English teacher at Al Qimmah Islamic Vocational School.

A Research instrument is a tool to collect data. Furthermore, Fraenkel & Wallen (2008) states that instruments are various measuring tools used systematically for data collection, such as tests, questionnaires and interview guidelines (Sugiyono, 2022, p. 156).

The instruments that have been used in this research are interview Guidelines and learning Implementation Plan Validation Sheet. Procedurally these development research steps refer to development research procedures according to Borg and Gall in Sugiono (2022) as in the following picture:

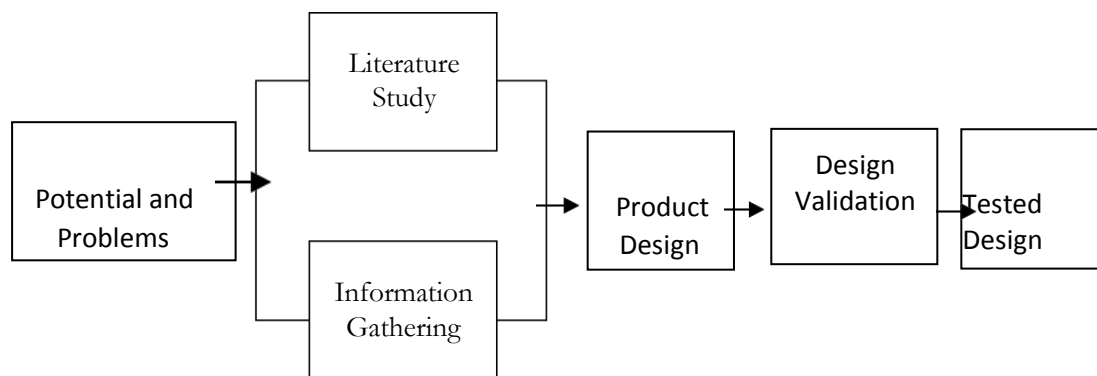


Figure 1 Research and Development Steps according to Borg and Gall in Sugiono (2022)

The techniques used to collect data on the development of English learning tools based on HOTS are Interview and Questionnaire. The data analysis techniques in this study were qualitative and quantitative.

1. Qualitative Data Analysis

Qualitative data analysis was carried out before going to the field and after finishing. A qualitative descriptive study has been processed from the results of experts' and practitioners' interviews, criticisms, and suggestions. The data has been analyzed by grouping information from qualitative data in the Design of responses, complaints, and improvement tips in the validation sheet. Data analysis is used to improve learning device development products in designing a learning implementation plan based on HOTS.

2. Quantitative Data Analysis

Quantitative data analysis has been used to analyze the data collected from the validation sheet. The validation sheet data will be analyzed to get an overview of the learning tools developed.

Data analysis of the validity of the learning design consists of analyzing the reality of the lesson plan implementation. The truth of the English learning design can be seen from several aspects. Each aspect has several criteria, which are then rated with a Likert scale as follows: 1 (Not Good), 2 (Poor Good), 3 (Enough), 4 (good), and 5 (very good). The English learning design is said to be valid if the average value given by the experts (validators) is in the "Very Valid" or "Valid" category.

Analysis of the validity of the lesson plan

According to Hobri in Isnaini (2019), the activity of determining the average value of the total aspects of the assessment of the validity of the learning implementation plan activities carried out are as follows:

a. Finding the average of each indicator from all validators

$$R_{li} = \frac{\sum_{j=1}^n V_{ji}}{n}$$

Information :

R_{li} = Average indicator to – i

V_{ji} = The score of the j-th validator assessment of the I -th indicator

n = number of validators

b. Finding the average value for each aspect of all validators

$$RA_i = \frac{\sum_{j=1}^n RI_{ji}}{n}$$

Information:

RI_i = Average value for the – I aspect

RI_{ji} = The score of the j-th indicator of the I -th indicator

n = number of Indicator of the i aspect

c. Looking for the average total validity of the learning implementation plan

$$RTV = \frac{\sum_{i=1}^n 1RA_i}{n}$$

Information :

RTV = Average total validity RA_i = Average value for aspect i

N = Number of aspects

- d.** As Aisyah (2018) Then, the average value of the total validity of the learning implementation plan is referred to at the research interval of the validity level of the learning implementation plan as follows (Isnaini, 2019, p.48) :

Table 1 Criteria for categorizing the validity of the lesson plan

Category	Information
$RTV = 5$	Very Valid
$4 < RTV < 5$	Valid
$3 < RTV < 4$	Quite Valid
$2 < RTV < 3$	Less Valid
$0 < RTV < 2$	Invalid

- e. If the results of the validation analysis are not in the valid or very valid category, it is necessary to revise the developed learning implementation plan.

Qualitative data analysis was carried out before going to the field and after finishing. A qualitative descriptive study has been processed from the results of experts' and practitioners' interviews, criticisms, and suggestions. The data has been analyzed by grouping information from qualitative data in the Design of responses, complaints, and improvement tips in the validation sheet. Data analysis is used to improve learning device development products in designing a learning implementation plan based on HOTS.

Quantitative data analysis has been used to analyze the data collected from the validation sheet. The validation sheet data has been analyzed to get an overview of the learning tools developed. Data analysis of the validity of the learning design consists of analyzing the reality of the lesson plan implementation. The truth of the English learning design can be seen from several aspects. Each aspect has several criteria, which are then rated with a Likert scale as follows: 1 (Not Good), 2 (Poor Good), 3 (Enough), 4 (good), and 5 (very good). The English learning design is said to be valid if the average value given by the experts (validators) is in the "Very Valid" or "Valid" category.

FINDINGS AND DISCUSSION

1. Forms of Developing English Instructional Design Based on Higher Order Thinking Skills

This study aims to produce a product in the form of an English instructional design based on higher-order thinking skills in the form of a learning implementation plan. The results of this study have been described coherently according to the stages passed during the research process. The scenes in question refer to the Borg and Gall model research procedure with the research stages: potential and problems, information gathering, product design and design validation. Further explanation of these stages is as follows:

a. Potential and Problems

The first step of this development research begins with the potential and problems. The potential and problems that the researcher found that need for Developing English Instructional Design Based on Higher order thinking Skills (HOTS) at SMK IT AL-QIMMAH

b. Information Gathering

The researcher collected data or information by conducting interviews with English subject teachers at Al Qimmah Integrated Islamic Vocational School. The data obtained is used to make product designs. At this stage, an analysis is also carried out to collect information related to the product developed by the researcher related to learning tools. This analysis was carried out, especially in English subjects. The needs analysis conducted by the researcher is the analysis of learning devices.

1) Learning Curriculum Analysis Analysis of the learning curriculum aims to find out what curriculum is applied by the school and how it is implemented in a class by subject teacher, especially English teacher. Researcher conduct the learning curriculum analysis by conducting direct interviews with the schools where the research products has been developed. From the results of interviews that researcher have conducted with teacher of English subjects at Al-Qimmah Integrated Islamic Vocational School using the 2013 curriculum

2) Analysis of Learning Tools

In essence, learning tools are the primary weapon for an educator in carrying out the learning process. Learning tools regulate and assist all activities in the teaching and learning process. This analysis aims to discover educators' problems in developing lesson plans. This is used as reference material in product development that the researcher will carry out.

3) Student Character Analysis

Student character analysis aims to find information about students' background knowledge and cognitive development. The information obtained from this activity becomes a reference in adjusting the product to be developed.

c. Product Design

This stage consists of a product development and assessment stage. Product development was prepared using Microsoft word 2010. Product development was carried out according to the Design that had been made and then revised based on the results of consultation and input from the supervisor.

1) Identity of the lesson plan

The Design of the first page of the learning implementation plan is to make the identity of the learning implementation plan in the name of the school, subject, material, class/semester and time allocation.

2) Writing learning objectives

Learning objectives describe the process and learning outcomes expected to be achieved by students following essential competencies.

3) Selection of teaching material

At this stage enter the material to be studied.

4) Model, Approach and Methods

This stage is determined by the model, approach, and method used in the learning process.

5) Media and learning resources

This stage includes the media that will be used along with learning resources

6) Learning steps

At this stage, make learning steps from the introduction to the closing stage.

7) Assessment of learning outcomes

Assessment of learning outcomes includes assessment of attitudes, knowledge and skills.

d. Product Validation

At this stage, the products that have been developed are then validated by lecturers and practitioners to determine the validity of the products that have been designed. The assessment of the validation of the learning implementation plan is carried out by filling out the validation sheet of the learning implementation plan. The validation sheet was developed with a Likert scale rating and contains suggestions and input for product improvement.

The results of the validation of the learning implementation plan

The aspects assessed or validated by the validator in this learning implementation plan are. The results of expert validation can be seen in the table below:

Table 2 Results of the validation of the learning implementation plan

No	Assessment Aspect	Average of each aspect	category
1	Identity of the lesson plan	4.75	Valid
2	Formulation of learning objectives	4.08	Valid
3	Selection of teaching materials	4.6	Valid
4	Selection of media and learning resources	4.5	Valid
5	Learning methods and models	4.65	Valid
6	Steps of learning activities	4.5	Valid
7	Assessment of learning outcomes	4.5	Valid
Average		4.5	Valid

Based on the table, the average value of the expert validation results is 4.5 with a correct category, according to the criteria specified in the previous chapter III ($4 \leq \text{RTV} < 5$) is a valid category criterion. This means that it follows the principles of developing a lesson plan. All components of the lesson plan have been listed so that this learning implementation plan is feasible with a slight revision.

From the validator's assessment, suggestions were obtained for the perfection of the learning implementation plan, namely making material attachments related to the official invitation material. The revision results based on the validator's suggestion resulted in an English learning design based on higher-order thinking skills in the form of a valid learning implementation plan.

CONCLUSIONS

This development research resulted in an English Instructional design based on higher-order thinking skills in the form of a lesson plan. This research was conducted concerning the Borg and Gall development model consisting of the potential and problem stages, information gathering, product design, design validation and tested Design and The development of an English learning design based on higher-order thinking skills in the form of a learning implementation plan has reached the Valid criteria with a score of 4.5

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