

# Content Analysis of Higher Order Thinking Skills (HOTS) in the E-Module of Lecturers at Muhammadiyah University of North Sumatra

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## Abstract

*The purpose of this study is to analyze the content of HOTS in E-modules that have been developed by lecturers, especially those related to accounting special skills courses. This analysis is based on the criteria for teaching materials containing higher-order thinking skills for students, especially the questions that have been developed in the module. This research uses content analysis method with stages of data reduction, data presentation and conclusion drawing. Data was collected using an assessment rubric according to the cognitive level with HOTS characteristics starting from the level of analysis (C4), Evaluation (C5) and Creation (C6), then presented in graphic form. The source of data in this study is the E-module which has been developed by the lecturer.*

## Keywords

high order thinking skill/ (HOTS); E-module; assessment instrument



## I. Introduction

Education in Indonesia is a unique character education in accordance with Indonesian culture, and is very much in line with the demands of 21st Century skills. The 21st century is a century based on science and technology, so it requires human resources to master various forms of skills, including critical thinking skills (critical thinking), creativity (creativity), collaboration (collaboration) and communication (communication) in learning. In other words, various skills in the frame of science and technology that need to be mastered by human resources.

Education is the foundation of a successful career, financial freedom, the ability to think and reason critically and to make informed decisions. Without education we will be limited to perform tasks and we will be ignorant to the things that are happening in and around our surrounding, and according to Martin Luther King, a people without knowledge is like a tree without roots. For education to be of great value, curriculums should be implemented. (Philips, S. 2020)

In the development of the world of education, especially after the rolling reforms, new phenomena have arisen in educational institutions, which are schools that use the term Integrated Islamic Schools (Titik, 2010: 42). The school is essentially aimed at helping parents teach good habits and add good character, also given education for life in society that is difficult given at home. Thus, education in schools is actually part of education in the family, which is also a continuation of education in the family (Daulay in Ayuningsih, W. et al. 2020).

The use of media and learning resources is part of the components that affect learning. Teaching materials need to be adapted to the conditions of students and the learning strategies used by lecturers. Utilization and empowerment of modules to support learning is a necessity, not only to improve the effectiveness and quality of learning, but more importantly to

improve the mastery of the material for both lecturers and students. The success of an educational goal depends on how the teaching and learning process is experienced by students. A lecturer in addition is required to be careful in choosing and applying teaching methods that are in accordance with the goals he wants achieved, also able to choose teaching materials as one of the appropriate learning media and in accordance with the material to make it easier to deliver the material. For this reason, teaching materials or media are needed that can attract students to absorb the material. One of the teaching materials or media that can be developed is an interactive learning module in the form of an electronic module (e-module). Current learning activities emphasize process skills and active learning, so learning media is becoming increasingly important, (Ministry of National Education, 2008)

Modules can facilitate students in independent and conventional learning. The module is equipped with self-study instructions so that students learn according to their abilities and can fulfill all the competencies that must be mastered. The module is a learning tool or facility that contains materials, methods, limitations, and ways of evaluating that are designed systematically and attractively to achieve the expected competencies according to the level of complexity (Depdiknas, 2008:3). In accordance with the characteristics of accounting material, in conveying material or explanations to students, various media are needed, because for students to understand this material requires a fairly high abstraction. It is not enough just to describe how to prepare financial statements, but simulations are needed to make them interesting and students can remember them well.

During this covid-19 pandemic situation, learning activities are carried out around the world Education from primary and secondary levels to higher education almost entirely implements learning through (online) networks. To date, 188 countries affected by Covid-19 have been forced to close their education units. While in Indonesia itself, based on data from the Ministry of Education and Culture (updated June 2020), there are 646,192 education units, 68,801,708 students and 4,183,591 teachers and lecturers who are affected by Covid-19 and must carry out distance learning, both online and offline.

Source: <https://mediaindonesia.com/humaniora/336013/pandemi-covid-19-dan-disrupsi-pembelajaran/>. This condition requires the readiness of all parties, both in terms of operating learning media and preparing learning content through interesting materials. In terms of lecturer competence, it is a very important component in developing e-modules in which it has characteristics that can make students as people who use learning media can hone higher-order thinking skills.

Higher order thinking skills are skills in digesting information and data and how to solve problems critically, creatively and analytically (Fanani, A., & Kusmaharti, 2018). Higher order thinking skills are not just simple thinking activities such as memorizing and conveying the information they get, but also the ability to connect, manipulate, and transform their knowledge to solve problems and make decisions in new situations. Higher-order thinking is a stage of thinking to train students' cognitive abilities at a higher level, namely students can analyze, evaluate and provide an assessment of a learned fact and can combine facts and ideas so that they can create something new based on what has been learned creatively. (A. Widodo & Indraswati, 2019)

Thinking skills that need to be developed by students are divided into two types, namely higher order thinking skills (HOTS) and lower order thinking skills (LOTS). Higher-order thinking skills in the cognitive domain include the ability of students to analyze (C4), evaluate (C5), and create or create (C6), all of which are advanced stages of lower-order thinking skills which consists of students' skills in remembering (C1), understanding (C2), and applying (C3) (Erfan & Ratu, 2018). Based on this statement, it can be concluded that Students can master higher-order thinking skills if they have mastered lower-level

thinking skills. Starting from here, it can be understood that learning requires a gradual process and consistent practice and paying attention to the stages of thinking according to Bloom's taxonomy.

Problems in learning accounting generally revolve around the effort to achieve learning objectives. Aspects that are prone to indications of problems in the accounting learning process can be categorized into two major aspects, namely cognitive and psychomotor aspects related to knowledge and skill competencies, and second, affective aspects related to attitude and character competencies. These two aspects are closely related to the realm of higher-order thinking that students should have well.

The main problem in this study is to analyze the content of HOTS in e-modules that have been developed by lecturers and their relevance to 21st century learning. The formulation of the problem in this study are: (1). How much content contains HOTS in the e-module? (2). What kinds of cognitive levels are contained in the HOTS content in the e-module? (3). Has the content presented in the lecturer's e-module facilitated learning oriented to students' higher order thinking skills? (4). Are these teaching materials relevant to 21st century learning? . In this study, a comparison of learning content with LOTS and HOTS content will be presented on each question developed by the lecturer in each learning activity in the e-module.

## II. Review of Literature

### 2.1 High Order Thinking Skill/HOTS

Thinking skills are a combination of two words that have different meanings, namely thinking and skills. Thinking is a cognitive process, namely knowing, remembering, and perceiving, while the meaning of skills is the act of collecting and selecting information, analyzing, drawing conclusions, ideas, problem solving, evaluating choices, making decisions and reflecting (Wilson, 2007). 2000). Higher Order Thinking Skill (HOTS) or higher order thinking skills described by Gunawan (2003:171) is a thinking process that requires students to manipulate existing information and ideas in a certain way that gives them new understanding and implications. For example, when students combine facts and ideas in the process of synthesizing, generalizing, explaining, perform hypotheses and analyzes, until students arrive at a conclusion. Rosnawati (2013: 3) explains that higher order thinking skills can occur when a person associates newly received information with information already stored in his memory, then connects it and/or rearranges and develops the information so that a goal or a solution is achieved. a difficult situation to solve.

King et al. (2013:1) categorizes HOTS as follows: (1) critical thinking and logical thinking, (2) reflective thinking, (3) metacognitive thinking, and (4) creative thinking. How to evaluate students' HOTS can be done by measuring in several ways, namely (1) choosing (multiple-choice, matching, and rank-order items), (2) generalizing (short answers, essays), and (3) giving reasons. .

Bagarukayo et al. (2012: 120) defines HOTS as covering: (1) making decisions, (2) solving problems, (3) critical thinking, (4) analyzing, (5) synthesizing, and (6) interpreting. Zohar & Dori (2003:145-181) categorize HOTS into: (1) argue constructively, (2) ask scientific questions, (3) make comparisons, (4) solve complex non-algorithmic problems, (5) classify differences of opinion, and ( 6) identify implied assumptions. Meanwhile, the Ministry of Education and Culture (2017: 3) explains that HOTS questions are measurement instruments used to measure higher-order thinking skills, namely thinking skills that are not just recalling, restating, or referring without processing (recite). . HOTS questions in the context of assessment measure ability: 1) transfer from one concept to another, 2) process and

apply information, 3) find connections from different kinds of information, 4) use information to solve problems, and 5) examine ideas and information critically. However, HOTS-based questions do not mean more difficult questions than recall questions. Viewed from the knowledge dimension, generally HOTS questions measure the metacognitive dimension, not just measuring the factual, conceptual, or procedural dimensions. The metacognitive dimension describes the ability to connect several different concepts, interpret, solve problems (problem solving), choose problem solving strategies, find (discovery) new methods, argue (reasoning), and make the right decisions. 3) looking for connections from different kinds of information, 4) using information to solve problems, and 5) examining ideas and information critically. However, HOTS-based questions do not mean more difficult questions than recall questions. Viewed from the knowledge dimension, generally HOTS questions measure the metacognitive dimension, not just measuring the factual, conceptual, or procedural dimensions. The metacognitive dimension describes the ability to connect several different concepts, interpret, solve problems (problem solving), choose problem solving strategies, find (discovery) new methods, argue (reasoning), and make the right decisions. However, HOTS-based questions do not mean more difficult questions than recall questions. Viewed from the knowledge dimension, generally HOTS questions measure the metacognitive dimension, not just measuring the factual, conceptual, or procedural dimensions. The metacognitive dimension describes the ability to connect several different concepts, interpret, solve problems (problem solving), choose problem solving strategies, find (discovery) new methods, argue (reasoning), and make the right decisions. However, HOTS-based questions do not mean more difficult questions than recall questions. Viewed from the knowledge dimension, generally HOTS questions measure the metacognitive dimension, not just measuring the factual, conceptual, or procedural dimensions. The metacognitive dimension describes the ability to connect several different concepts, interpret, solve problems (problem solving), choose problem solving strategies, find (discovery) new methods, argue (reasoning), and make the right decisions. However, HOTS-based questions do not mean more difficult questions than recall questions. Viewed from the knowledge dimension, generally HOTS questions measure the metacognitive dimension, not just measuring the factual, conceptual, or procedural dimensions. The metacognitive dimension describes the ability to relate several different concepts, interpret, solve problems (problem solving), choose problem solving strategies, find (discovery) new methods, argue (reasoning), and make the right decisions.

Gilligan (2007:7) states that the revised Bloom's taxonomy is very useful for lecturers to develop higher-order thinking skills in the implementation of learning. The teacher uses operational verbs related to higher order thinking skills. In selecting operational verbs (KKO) to formulate indicators for HOTS questions, one should not get caught up in the KKO grouping. For example, the verb 'determine' in Bloom's Taxonomy is in the C2 and C3 domains. In the context of writing HOTS questions, the verb 'determine' may be in the realm of C5 (evaluate) if to make a decision it is preceded by a thought process of analyzing the information presented on the stimulus and then students are asked to make the best decision. Even the verb 'determine' can be classified as C6 (creating) if the question requires the ability to develop new problem solving strategies. So, the realm of operational verbs (KKO) is strongly influenced by what thought processes are needed to answer the questions given. In the preparation of HOTS questions generally use a stimulus. Stimulus is the basis for making questions. In the context of HOTS, the stimulus presented should be contextual and interesting. Stimulus can come from global issues such as issues of information technology, science, economy, health, education, and infrastructure. Stimulus can also be raised from

problems that exist in the environment around the education unit such as culture, customs, cases in the region, or various advantages found in certain areas.

## **2.2 Electronic Module (e-module)**

Modules are learning materials that are specially prepared and systematically designed based on a certain curriculum that is packaged into a smallest learning unit (modular) that can be used independently by learners to achieve certain learning objectives that have been set. (Rusmiati et al., 2013). The e-module is a form of presenting self-study materials that are systematically arranged into certain learning units, which are presented in an electronic format, where each learning activity in it is connected by a link as a navigation that makes students more interactive with the program. equipped with the presentation of video tutorials, animations and audio to enrich the learning experience.(Suarsana & Mahayukti, 2013)

## **2.3 Assessment Instruments**

Assessment of learning outcomes is intended to determine the level of mastery of students after studying all the material in the module. The implementation of the assessment follows the provisions that have been formulated in the module. Assessment of learning outcomes is carried out using instruments that have been designed or prepared at the time of writing the module. The assessment instruments that must be contained in the module generally contain the realm of Bloom's taxonomy which includes the cognitive, affective and psychomotor domains.(Skills et al., 2012)

The assessment technique or method must be adjusted to the domain being assessed, as well as the indicators of success being referred to. Based on the realm of Bloom's taxonomy, the assessment instrument in the form of cognitive tests/questions is designed to measure and determine the level of achievement of cognitive abilities (according to basic competency standards). Questions are developed according to the characteristics of the aspects to be assessed and can use types of written tests that are assessed according to the development of students. In the cognitive domain, there are six levels of assessment aspects that can hone students' thinking skills starting from a low level (low order thinking skills) called LOTS which consists of aspects of knowledge (C1), understanding (C2) and application (C3). then the level of higher order thinking skills called HOTS which consists of aspects of analysis (C4), evaluation (C5) and creation (C6). For Psychomotor Tests, the assessment instrument is designed to measure and determine the level of achievement of psychomotor abilities and behavioral changes (according to competency standards/basic competencies). The questions are developed according to the characteristics of the aspects to be assessed. While the attitude assessment, the assessment instrument is designed to measure work attitudes (according to basic competence/standard competencies). The questions are developed according to the characteristics of the aspects to be assessed. While the attitude assessment, the assessment instrument is designed to measure work attitudes (according to basic competence/standard competencies). The questions are developed according to the characteristics of the aspects to be assessed. While the attitude assessment, the assessment instrument is designed to measure work attitudes (according to basic competence/standard competencies).

### III. Research Method

This study uses a qualitative descriptive approach with content analysis methods with stages of data reduction, data presentation and conclusion drawing (Sugiyono, 2013). This type of descriptive research is used because it can explain in detail both quantitative and qualitative data. The data analyzed in this study is a module). electronic (e-module) lecturers, especially those related to accounting specialty courses. This analysis is based on the criteria for teaching materials containing high-level thinking skills for students, especially the questions that have been developed in the module. Data collection is done using an assessment rubric according to the cognitive level with HOTS characters starting from the level of analysis (C4), Evaluation (C5) and Creation (C6), then presented in graphic form. The data obtained is in the form of quantitative data, namely the comparison of the percentage of content containing LOTS with HOTS and the percentage of cognitive levels used in HOTS content in each sub-theme and qualitative data in the form of descriptive sentences resulting from the interpretation of researchers based on the characteristics of good questions. (Fajrin et al., 2015). The data that has been collected is analyzed using content analysis to identify which content contains LOTS and HOTS. In the next stage, an analysis of the various cognitive levels used in HOTS content is carried out starting from C4 to C6. Checking the validity of the findings was carried out through peer discussions and several lecturer modules related to the field of accounting expertise spread across several faculties and study programs at UMSU.

The research was conducted in four (4) stages including, preliminary stage, data collection stage, data presentation stage and data analysis stage. Preliminary stage, the researcher conducted a literature study to collect various information needed in conducting a theoretical study related to the module. Data Collection Stage, The researcher collected all modules produced by UMSU lecturers through LPKP, especially modules that had the field of accounting studies.

The number of modules that are the object of research for the field of accounting studies that have been developed by UMSU lecturers as learning modules for students in the odd semester of the 2020-2021 academic year are 29 modules spread across four (4) faculties. Based on the module data, the researcher only took data as much as 25% of the total existing modules, and the module retrieval technique was done randomly with a total of 7 modules, including;

1. Asset Module
2. Banks and Financial Institutions Module
3. Risk Management Module
4. Management Control System Module
5. Banking Accounting Module
6. Banks and Financial Institutions Module
7. Introductory Accounting Module

At this stage, the researcher developed an assessment rubric related to the LOTS and HOTS-oriented question categories according to the research objectives. Data collection is done with a rubric and then presented in the form of a graph. The data obtained in the form of quantitative data, namely a comparison of the percentage of content containing LOTS and HOTS as well as the percentage of cognitive levels used in HOTS content in each sub-theme

and qualitative data in the form of descriptive sentences resulting from the interpretation of researchers based on the characteristics of a good learning module.

Stages of Data Presentation At this stage, the researcher analyzes each accounting module that has been developed by the lecturer. The analysis is carried out specifically on the formulation of learning objectives that are directly related to the learning evaluation presented at the end of each learning activity in the module. Each evaluation item is read and adjusted to the learning objectives to determine whether the question belongs to the LOTS or HOTS category.

Data Analysis Stages, this stage is done by analyzing the quality of test items and items according to the formulation of learning objectives in four ways, namely:

- a. Qualitatively; carried out by means of content and construct validation based on the rules of writing HOTS-oriented questions. This analysis was carried out by taking into account aspects of learning objectives, material development, construction, language, scoring guidelines and answer keys.
- b. Quantitatively; This is done by examining the items based on empirical data.
- c. Item Difficulty Level; A good evaluation tool consists of items that are neither too easy nor too difficult. The emphasis on HOTS-oriented questions does not emphasize the difficulty of the questions developed, but rather on the ability of the questions in using the mind of the person who answered the question (testee) to solve the problem at hand, so that the testee can understand, interpret, analyze, and interpret information from the questions that must be solved. HOTS also teaches a person to be critical in evaluating information, making conclusions, and making generalizations.
- d. The data that has been collected is analyzed using content analysis to identify which content contains LOTS and HOTS, then an analysis is carried out on the various cognitive levels used in content containing HOTS starting from level C4 to C6.

#### IV. Result and Discussion

The results obtained from this study are the percentage comparison of LOTS content with HOTS in each learning activity and the percentage of various cognitive levels used in HOTS content in each learning activity contained in the module.

Based on the results of the analysis conducted on The learning modules that have been developed by the lecturers for 8 modules that are used as research objects get the following results:

**Table 1.** The results of the assessment of the module questions based on the HOTS characters in accordance with the Assessment Rubric

No	Research Indicators	Module Suitability Level Based on the assessment aspect						
		Module*						
Construction Aspect		1	2	3	4	5	6	7
1	Formulation of learning objectives using operational verbs (KKO) level C4, C5 and C6	30%	20%	20%	50%	30%	40%	30%
2	Material development in accordance with the	50%	90%	70%	70%	70%	70%	70%

No	Research Indicators	Module Suitability Level Based on the assessment aspect						
			formulation of learning objectives					
3	Use of language that is easy to understand	100%	100%	100%	100%	100%	100%	100%
4	Include scoring guidelines for each learning activity	0%	0%	0%	0%	0%	0%	0%
5	Include the answer key for each assessment instrument contained in each learning activity	100%	0%	0%	0%	0%	0%	0%
<b>Aspects of the characteristics of the question</b>								
1	Measuring higher order thinking skills	30%	50%	50%	30%	70%	70%	70%
2	Based on contextual problems	30%	30%	50%	50%	70%	70%	70%
3	Using various forms of questions	70%	50%	50%	50%	70%	70%	70%
4	Divergent	50%	30%	70%	70%	70%	70%	70%
5	Using multiple presentations	30%	30%	50%	50%	70%	70%	70%
<b>Aspects of the cognitive domain of the question</b>								
1	Analyze (C4); requires students' ability to specify aspects/elements, describe, organize, compare, and find implied meanings	30%	30%	30%	30%	30%	30%	30%
2	Evaluate (C5); requires the ability of students to formulate hypotheses, criticize, predict, assess, test, justify or blame.	20%	20%	20%	20%	20%	20%	20%
3	While on the dimension of creative thinking process (C6); requires the ability of students to design, build, plan, produce, discover, update, perfect, strengthen, beautify, compose	10%	10%	10%	10%	20%	20%	20%

**\*Module Description:**

- |  |  |
|--|--|
| 1. Asset Module                            | 5. Introductory Accounting Module          |
| 2. Banks and Financial Institutions Module | 6. Banking Accounting Module               |
| 3. Risk Management Module                  | 7. Banks and Financial Institutions Module |
| 4. Management Control System Module        |  |



The results of the analysis of the content of HOTS (higher-level thinking skills) and LOTS (low-level thinking skills) content in the module that has been developed by the lecturer are based on three aspects of assessment, namely the construction aspect, the characteristic aspect of the question and the cognitive aspect of the question. For the results of each aspect other than those presented in the table above, it can also be presented in graphical form as below to facilitate observations.

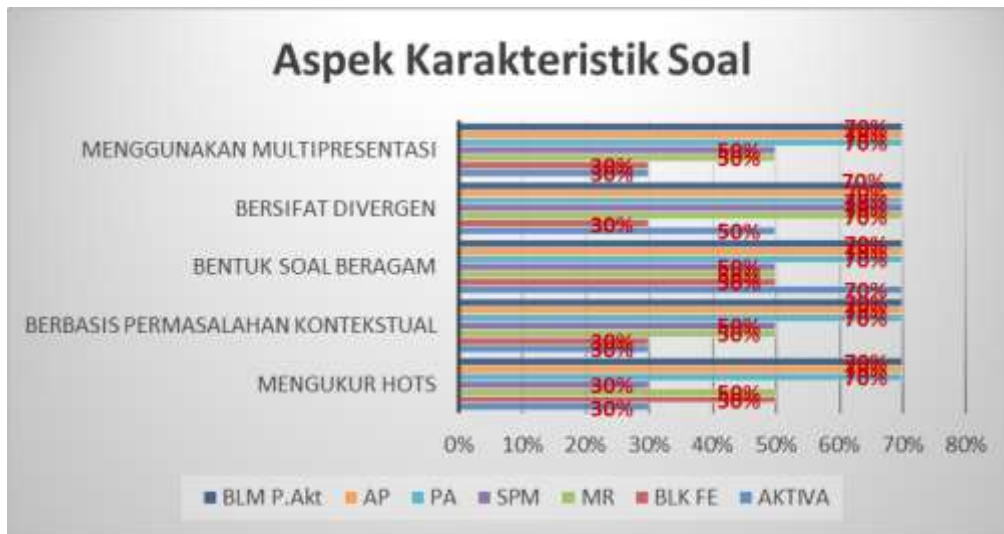
#### 4.1. Aspects of Problem Construction



Based on the results of the construction aspects above, for the content of HOTS (high-Level thinking skills) with LOTS (low-level thinking skills) in the modules that have been Developed by lecturers can be seen from the placement of operational verbs (KKO) which are written to measure changes in behavior (behavior) that will be achieved by students in each learning activity in each module. On average, seven (7) modules developed still use LOTS level operational verbs. The use of high-level verbs (HOTS) is still low, the results of the analysis carried out on each module of the use of high-level verbs (HOTS) for the asset module is 30%, the bank and financial institution module is 20%, the risk management module is 20% , management control system module by 50%, introductory accounting module by 30%,

Overall, if you add up the LOTS load on the construction aspect, the question gets a percentage of 68.57%, while the HOTS charge gets a percentage of 31.43%. The data shows that the content containing LOTS in each of these modules is greater than the content containing HOTS. This shows that the seven modules are not in accordance with the criteria for good teaching materials because they have presented content containing LOTS with a greater percentage than HOTS, so that learning activities oriented to higher order thinking skills cannot be facilitated properly.

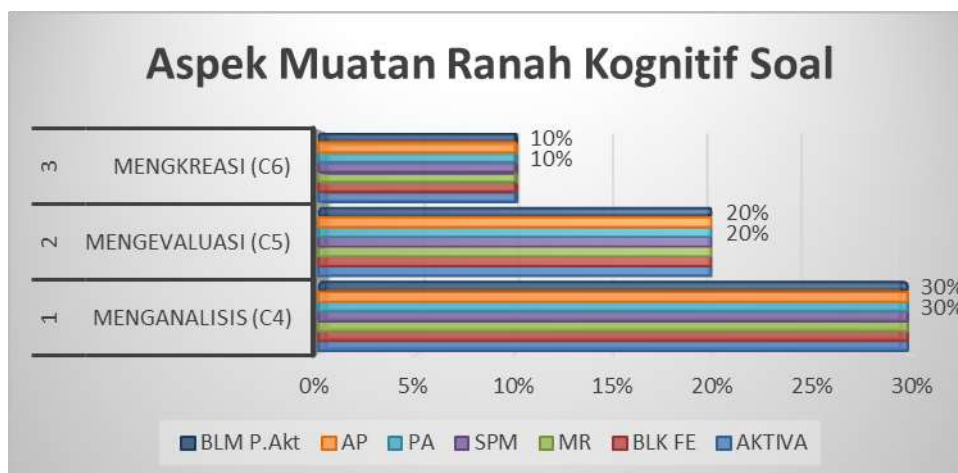
## 4.2 Aspects of Problem Characteristics



Based on the results of the characteristic aspects of the questions above, for The content of HOTS (high-level thinking skills) and LOTS (low-level thinking skills) in the modules that have been developed by lecturers can be seen from the ability of the questions to increase students' high-level intelligence by applying questions with HOTS-level operational verbs. An average of seven (7) modules were developed. The use of high-level verbs (HOTS) is still low, the results of the analysis carried out on each module of the use of high-level verbs (HOTS) for the asset module is 30%, the bank and financial institution module is 50%, the risk management module is 50% , the management control system module is 30%, the introductory accounting module is 70%, the banking accounting module is 70% and the bank and financial institution module (pend. Accounting) is 70%.

Overall, if you add up the LOTS charge on the characteristic aspects of the question, you get a percentage of 52.86%, while the HOTS charge gets a percentage of 47.14%.

## 4.3 Aspects of the cognitive domain of the question



Based on the results of the cognitive aspect of the question above, in accordance with the characteristics of the question according to the cognitive domain, the HOTS question category which is at the analyzing level (C4) for seven (7) modules developed are still low at only 30%, while for the evaluating level category (C5) all questions in the developed module are very low at only 20%, and for the creative level (C6) the results are lower, namely only up to 10% of all learning activities for each module that has been formulated.

Overall, if you add up the LOTS content in the cognitive aspect of the question, you get a percentage of 60%, while the HOTS charge gets a percentage of 40%.

Based on the graph in Figure 1, it can be concluded that the assessment instruments (questions) with HOTS content are lower than those with LOTS in each learning activity contained in each module. Overall the content of the assessment instrument (question) which contains HOTS when viewed from the aspect of construction questions get a percentage of 31.43%, while the LOTS load gets a percentage of 68.57%. For the HOTS content from the aspect of the question characteristics, it gets a percentage of 47.14%, while the LOTS content gets a percentage of 52.86%, and the HOTS content in terms of the cognitive domain aspect gets a percentage of 40%, while the LOTS content gets a percentage of 60%.

This shows that the instrument questions in the accounting learning module that accompany students to learn each learning activity develop more low-level thinking skills than high-level skills. These problems are found not only in the development of questions in each learning activity but also in the development of learning objectives as the first step in developing materials and forms of assessment instruments.

The cognitive level used in the instrument questions in the learning activities in each module on average uses the level of understanding (C2) and application (C3), while for the level of analysis (C4) all modules are still 30%, the evaluation level (C5) is 20% and the level of creation (C6) is 10%. Based on the results of the analysis conducted on the seven (7) modules that have been developed by this UMSU lecturer, it can be concluded that there are still difficulties for developing assessment instruments to develop HOTS character questions, especially those implementing contextual-based problems.

According to research, some difficulties in applying high-level skills-based learning are generally in the application of critical, creative and problem-based thinking. Therefore in (Pratiwi & Alimuddin, 2019) applying learning oriented to higher order thinking skills should start from simple and contextual problems and then increase to complex and abstract problems. For example, through simple project activities then directed to HOTS learning by compiling questions whose answers are divergent, meaning that there is not only one correct answer. This is in accordance with the opinion of Subadar (2017) which states that one of the characteristics of the HOTS question is that there is more than one possible correct answer.

The presentation of teaching materials containing HOTS in these seven (7) modules is not entirely in accordance with the criteria for good teaching materials, but there is a need for lecturer creativity in developing learning so that it is more in line with the competency standards of graduates to be achieved in each subject in accordance with the formulation of learning outcomes. courses (CPMK) in each learning activity. According to Akbar (2013) in Fajrin et al., (2013) there are at least eight criteria for a good textbook, one of which is student-centered orientation, namely textbooks can stimulate students' curiosity, are constructivist, allow students to interact and able to encourage students to practice the messages contained in the reading. The curiosity of students in this module has been facilitated in various learning activities. In stimulating students' curiosity, constructivist thinking skills are developed, meaning that students are not told directly but seek the knowledge themselves

The advantage of this module is that the cognitive level stages have been integrated in every learning activity. There are no learning activities that only present one stage of thinking, all learning activities in each module have integrated thinking stages starting from C1 to C6. This can be interpreted that in each learning activity the level of knowledge, understanding, application, analysis, evaluation and creation has been contained, it's just that the level of cognitive level that is the focus of each learning activity is different. The weakness in these seven (7) modules lies in the presentation of the cognitive level at the level of analysis, evaluation and creation and innovation. Content that presents an element of innovation which is one of the skills needed in accordance with the characteristics of learning in the 21st century is very low in each module, which is only 10% of each learning activity. The cognitive level of creation is only dominated by activities that are usually carried out so that the results are predictable, whether accounting science is actually in the concentration of preparing financial statements for services, trade and industry.

## V. Conclusion

Based on the results of the study, conclusions can be drawn including:

1. Content containing HOTS in each learning activity is smaller than content containing LOTS,
2. The various cognitive levels in the HOTS content are presented in an unbalanced manner where the cognitive level of analysis (C4) is 30%, the cognitive level of evaluation (C5) is 20%, and the cognitive level of creation (C-6) is 10%,
3. The accounting module which consists of seven (7) modules and is spread across several different study programs has facilitated learning oriented towards developing higher order thinking skills even though the percentage is still small compared to lower order thinking skills.
4. This module is relevant to 21st century learning in terms of HOTS content and LOTS content, although the percentage is still higher than HOTS load.
5. The weakness in this module is that the cognitive level that leads to innovation which is one of the important skills in the 21st century is still low at 10% for each formulated learning activity.

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