THESIS

ANALYSIS OF HIGHER ORDER THINKING SKILL ON SCHOOL EXAM ENGLISH TEST OF VOCATIONALHIGH SCHOOL AT PAREPARE (CRITICAL THINKING DISCOURSE APPROACH)

By

ANDI AKBAR HENDRAJAYA
Reg Num. 16.1300.156

ENGLISH EDUCATION PROGRAM
TARBIYAH FACULTY
STATE ISLAMIC INSTITUTE (IAIN)
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Submitted to the English Education Program of Tarbiyah Faculty of State Islamic Institute of Parepare in Partial of Fulfilment of the Requirements For the Degree of Sarjana Pendidikan (S.Pd)

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Parepare, October 04th 2021

The writer

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DECLARATION OF THE RESEARCH AUTHENTICITY

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	(Critial Thinking Discourse Approach)

Stated that himself conducted this skripsi, if it can be proved that is copied, duplicated or complied by other people, this skripsi and degree that has been gotten would be postponed.

Parepare, October 04th 2021

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ABSTRACT

ANDI AKBAR HENDRAJAYA, Analysis of *Higher Order Thinking Skill on School Exam English Test of Vocational High School at Parepare (Critical Thinking Discourse Approach). (Supervised by Wahyu Hidayat and Mujahidah).*

The ability of students' Higher Order Thinking Skills (HOTS) is very necessary for the 21st century. The purpose of this study is to identify the problem on school exams test that making students had lower order thinking skill in vocational high schools at Parepare.

The research method used is critical thinking discourse and descriptive quantitative approach with data collection techniques using HOTS and LOTS checklist. Critical thinking in this study uses quantitative and qualitative analysis. In this study, researchers used experts to assess quality in HOTS perspective. Experts were selected using purposive sampling based on determined criteria such as> 5 years teaching experience, master's degree in English and other criteria. In this study, researchers used a questionnaire scale instrument that began with a scale of Strongly Agree, Agree, Fair, Disagree and Until Highly Disagree. The experts assessed the revised level of bloom taxonomy on items test that had been determined by previous researchers. And there are 2 technical analysis techniques used, those are qualitative analysis (researchers analyze based on expert logic) and Multi-Faceted Rasch Measurement (MFRM).

The results from this study is the percentage of questions for each cognitive level is remembering (C1), understanding (C2), applying (C3), analyzing (C4), evaluating (C5) and creating (C6). For package A, LOTS C1(0%), C2(17.5%), C3(67.5%) and HOTS C4(14%), C5(0%), C6(0%). For package B, LOTS C1(15%), C2(17.5), C3(7.5%) and HOTS C4(40%), C5(17.5%), C6 (2.5%). Those results do not meet with the proportion of questions that supports achievement of Higher Order Thinking Skill (HOTS). The purpose of this research giving an information and basic strategy to teacher and evaluator in helping students to improve comprehension and use of English comprehensively in the fields of speaking, listening, reading and writing based on Higher Order Thinking Skill.

Keywords : Cognitive level, Bloom's taxonomy, Analysis of school exam English test.

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CHAPTER I
INTRODUCTION

A. Background

The development of an increasingly advanced era led develops in the world of education. Education is initially as a character education, preparing skills and finally as an investment in future human resources. Education development at this time should be an integral part of human resource development. This is in line with the mandate of the 2013 curriculum which requires high-quality human capabilities. Quality improvement is inseparable from the process of implementing learning and learning outcomes assessment procedures.

Learning and assessment are two important aspects to improve high-level thinking competency in students. For this reason the learning and assessment given must be in accordance with the learning objectives so that it can be carried out well and the results of the learning can explain the true abilities of the students. In addition, the results of this assessment will facilitate students in obtaining information about the extent of student learning outcomes on a subject that has been learned, so that educators must provide appropriate action to their students. Such a learning assessment that is appropriate with the right test instrument can help students in higher-order thinking.

The instruments used by teachers or educators are generally guided by the 2013 curriculum syllabus with low-level thinking abilities so that many schools do not have a high-level thinking ability test instrument set and this has not met high-level thinking targets. This can be considered in the everyday world of students who

have graduated from high school and continue to university. Many of them have received learning but have not mastered the learning at the time of testing.

For example, in learning English. Teaching English at the high school level especially on vocational high school at Parepare, it is very important to be pursued in the face of the demands of the 21st century, because it will face the global market. Mastery of English as a foreign language for students in four skills of reading, writing, listening and speaking supports the achievement of success in the current global era. One aspect of skills that is urgent in learning languages is the ability to read, because it can indirectly improve vocabulary and speaking skills.

Strengthening in reading skills will have implications for significant improvements in other language learning. By mastering reading skills, students of second language learners are expected to be able to improve their ability to learn English as a foreign language (Hedge, 2008), acquire knowledge written in English and become the student's basic capital in capturing information in newspapers, articles and magazines in English . Reality in Indonesia according to the PISA rating ranks 64 in the literacy, mathematics and science skills of students in 70 countries around the world.[1]

Students have gotten this learning since they were still in elementary school and continue in junior high school and senior high school. They have studied English for approximately eight years in general education before continuing to university. So

[1] Nailul Author Restu Pamungkas, *Penerapan Higher Order Thinking Skills (Hots) Untuk Meningkatkan Keterampilan Membaca Siswa SMA* (Tajdidukasi , Volume VIII, No.1Januari 2018)

based on the issue we need a new contribution and strategy to increase higher order thinking students skill (HOTS).

Along with the implementation of the 2013 curriculum, it is hoped that there will be a paradigm shift in the implementation of learning in schools. Teachers as the spearhead of change can change the mindset and learning strategies that were initially teacher-centered turned into student-centered. Teachers are expected to be more creative and innovative in presenting subject matter. The creation of productive, creative and innovative Indonesian people can be realized through the implementation of learning that can be carried out in various scopes using critical and creative thinking skills. Learning that can be applied is learning by empowering to think at a high level (high order thinking). The 2013 curriculum has adopted Bloom's revised taxonomy by Anderson starting from the level of knowing, understanding, applying, analyzing, evaluating and creating, because the demands of the 2013 curriculum must come to the stage of creating, students must be continuously trained to produce something new.

Higher Order of Thinking Skills (HOTS) is the ability to think critically, logically, reflectively, metacognitive, and think creatively which is a higher order thinking skill. Higher Order of Thinking Skills (HOTS) is the ability to think that not only requires the ability to remember, but requires other higher abilities, such as the ability to think creatively and critically.

Provision of Science material is adjusted to its nature as products, processes, and scientific attitudes, so it is expected that scientific attitudes will also be formed for students. The application of several learning models such as project based learning, problem based learning, discovery learning become opportunities for

teachers to implement learning activities at the level of HOTS (Higher order thinking skills). In practice, the application of HOTS learning is not an easy thing to do by the teacher. Besides the teacher must really master the material and learning strategies, teachers are also faced with challenges with the environment and intake of students they teach.

We can conclude that HOTS (Higher Order of Thinking Skill) shows an understanding of information and reasoning rather than just remembering information. The teacher not only tests memory, so it is sometimes necessary to provide the information needed to answer questions and students show understanding of ideas, information and manipulating or using that information. Other activities techniques that can develop students' critical and creative thinking skills in the form of answering innovative questions.

B. Research Question

Based on the background of the study above, problem statement on this research can be formulated as follows :

1. How is the higher order thinking skill on school exams English test of vocational high school at parepare?
2. How is experts' validity on item school exam English test of vocational high school at parepare?

C. Objective of the Research

The objectives of this research are :

1. To identify HOTS items on school exams English test of vocational high school at parepare.

2. To identify experts' validity on item school exam English test of vocational high school at parepare.

D. Significance of Research

The significance of the research is expected to give the knowledge and some advantage. The following presents some possible ways:

1. For the teachers, the result of this research is expected to inform and provide them with a new strategy to make a good test on the school exam test of vocational high school. It is also expected to motive the teachers to be more creative and innovative, so the students will be more enthusiastic in learning English in the class.
2. For the students, the result of this research is expected to give them new experience and challenge in English test so they can be motivated to increase their higher order thinking skills.
3. For the researcher who will continue this research and make it complete, so the readers can get new information and strategy to make a good school exam test.

CHAPTER II
REVIEW OF RELATED LITERATURE

This part describes about the description of the previous related findings, some pertinent ideas, conceptual review and conceptual framework.

A. Previous Research Findings

There are many research findings which are related to this research, some of previous research findings which are related to this research are described below:

Merta Dhewa Kusuma, Undang Rosidin, Abdurrahman and Agus Suyatna, in their research "The Development of Higher Order Thinking Skill (HOTS) Instrument Assessment In Physics Study" show that an instrument assessment of HOTS with HOTS indicators in static fluid material based on cognitive dimension process in form of analysing ability (C4), evaluating (C5), and creating (C6), as well as knowledge dimensions in form of factual knowledge, conceptual procedure, and metacognitive. The indicators of analysing ability (C4) which have been developed are knowledge analyzing ability (PF), conceptual knowledge analysis (PK), procedural knowledge analysis (PP), and metacognitive knowledge analysis (PM). The indicators of the evaluation of ability (C5) which have been developed are the ability of factual knowledge evaluation (PF), conceptual knowledge evaluation (PK), procedural knowledge evaluation (PP), and metacognitive knowledge evaluation (PM). The indicators of creating ability (C6) which have been developed are conceptual knowledge creating ability (PK), creating procedural knowledge (PP), and creating metacognitive knowledge (PM). Based on the result of research, instrument assessment of HOTS as assessment for learning is effective to train student's HOTS

as well as effective in measuring student's thinking ability based on each student's HOTS level.[2]

Nani Ronsani Thamrin, Pratomo Widodo, Margana in their research "Developing Higher Order Thinking Skills (HOTS) For Reading Comprehension Enhancement" show that developing higher order thinking skills on reading comprehension enhancement in critical reading in Kuningan university, the researcher can draw the conclusions as follows. There were two main kinds of conceptual variation in reading comprehension through HOTS strategy in critical reading class, which involved the steps of HOTS strategy they were on the way of remembering, understanding, applying, analyzing, evaluating and creating (C1-C6 phase of HOTS) and critical reading they are predicting, summarizing, generating question and clarifying). The students tend to begin to involve their prior knowledge, experience, and logical reason after they had known about the steps of critical reading and HOTS strategy delivered by the lecturer during the classroom activities. In this case, the students were classified as the LOTS and HOTS students based on the consideration of how much the students involved their critical thinking in responding the text that given by the lecturer.[3]

Edi Estiyoma, Djemari Merpati and Suparno, in their research "Pengembangan Tes Kemampuan Berfikir Tingkat Tinggi Fisika (PysTHOT)" show that : (1) the PhysTHOTS instrument is developed in the form of multiple choice

[2] Merta Dhewa Kusuma, Undang Rosidin, Abdurrahman and Agus Suyatna, *The Development of Higher Order Thinking Skill (Hots) Instrument Assessment In Physics Study*, IOSR Journal of Research & Method in Education (IOSR-JRME) e-ISSN: 2320–7388,p-ISSN: 2320–737X Volume 7, Issue 1 Ver. V (Jan. - Feb. 2017), PP 26-32

[3] Nani Ronsani Thamrin, *Developing Higher Order Thinking Skills (Hots) For Reading Comprehension Enhancement*, Journal of Physics: Conference Series, 2019.

reasons for the ability to analyze, evaluate, and create material for physical motion, force, effort and energy, and momentum and impulse consisting of test A and test B, each of which has 26 items with 8 anchor items; (2) PhysTHOTS instruments have fulfilled content validity with expert judgment and have obtained empirical evidence of construct fit validity in the Partial Credit Model (PCM) based on four categories of political data; (3) all items in PhysTHOTS are in good criteria because the level of difficulty is in the range between -2.00 to 2.00. PhysTHOTS reliability has fulfilled the requirements, even including high (coefficient of reliability more than 0.90). Based on the information function, Phys-THOTS is very appropriate to be used to measure the ability to think at a high level of physics capable students from -0.80 to 3.40.[4]

Tony Thompson, in his research "An Analysis of Higher Order Thinking Skill on Algebra I End of Course Test" show previous research in the 1990s and early 2000s indicated that although most US states created challenging standards, exams developed by states to assess these standards were not very challenging (Lane, 2004; Nichols &Sugrue, 1999; Webb, 1999; 2002; 2007). This research showed that during this same time period, North Carolina had difficulty creating Algebra I EOC test items that assessed for HOT. In addition, this research found that in 1998 and 2001, in NC DPI's initial effort to use *Dimensions of Thinking* and *Bloom's Taxonomy* was not consistently applied to similar test items and were often not consistent with how they are defined in *Dimensions of Thinking* and *Bloom's Taxonomy*. In 1998 and 2001, the majority of Algebra I EOC test items classified as HOT by NC DPI were tasks for which students were very likely to have been taught an algorithm or

[4] Edi Estiyoma, Djemari Merpati and Suparno, *Pengembangan Tes Kemampuan Berfikit Tingkat Tinggi Fisika (PysTHOT),*

procedure to solve. By 2007, there was a distinct shift in how test items were classified. In particular, NC DPI reduced the original seven thinking skills to three (*organizing*, *applying*, and *analyzing*) and provided mathematics specific definitions for each of these thinking skills. As a result, there was more consistency in categorizing test itemsas well as an increase in the cognitive demands of test items. Overall, compared to the 1998 / 2001 Algebra I EOC test items, the 2007 test items were more complex, did not consider real world contexts synonymous with HOT, involved more problem solving and conceptual understanding, and required students to solve more test items —outside the familiar.[5]

Siti Rohmi Yuliati and Ika Lestari, in their research Higher-Order Thinking Skills (HOTS) Analysis Of Students In Solving HOTS Question In Higher Education show that students still do not have good awareness or understanding in answering HOTS oriented questions. The answers provided are always in the form of a single answer that is not preceded by analysis so that the questions on the form of cognitive analysis processes are not answered by analysis. Even though, students know that answering an analysis question should not be a short answer. Unusualness in answering the description question becomes the biggest obstacle in training HOTS. The recommendations given for further research are that the teacher can begin to provide learning material that supports HOTS skilled students, avoiding multiple choice tests, even if accompanied by previous case examples. Get used to working on the description test type.[6]

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[5]Tony Thompson, *An Analysis of Higher Order Thinking Skill on Algebra I End of Course Test,*Department of Mathematics, Science, and Instructional Technology EducationCollege of Education Journal, East Carolina University, Greenville.

[6] Siti Rohmi Yuliati and Ika Lestari, *Higher-Order Thinking Skills (HOTS) Analysis Of Students In Solving HOTS Question In Higher Education*, PERSPEKTIF Ilmu Pendidikan - Vol. 32 No. 2 Oktober 2018

Giani, Zulkardi and Cecil Hiltrimartin, in their research "Analisis Tingkat Kognitif Soal-Soal Buku Teks Matematika kelas VII Berdasarkan Taksonomi Bloom" based on the results of the analysis and discussion described, the questions in the BSE Mathematical Concept and its Applications: for grade VII SMP and MTS, written by Dewi Nuharini and Tri Wahyuni, published by the Book Center of the Department of National Education (2012), the chapter on Equality and Inequality Linear One Variable, at the cognitive level C1 to C4. Problems at C3 cognitive level dominate with a much greater percentage than other cognitive levels at 61, 94%. While the percentage of the number of questions at the cognitive level of C1 was only 3.23%, C2 was 30.97%, and C4 was 3.87%. No problems were found at cognitive levels C5 and C6.The absence of questions at level C5 and C6 is because the teacher's assessment only emphasizes the recognition or recall of facts so that students are accustomed to having knowledge at this level only. Furthermore, textbook writing does not include questions at a higher cognitive level as a matter of Competency Test, because it is too difficult for students. Basic competence and learning objectives of equations and linear inequalities of one variable, starting from recognizing to modeling equations and linear inequalities of one variable. The learning objectives start from the cognitive level C1 to C6. So as to support the achievement of the Basic Competence and learning objectives, the Competency Test in the Equation and Inequality Linear One Variable Inequality must contain questions at the C5 and C6 levels. It can be concluded that the BSE Mathematics textbook does not contain questions with good proportions.[7]

[7]Giani, Zulkardi and Cecil Hiltrimartin, *Analisis Tingkat Kognitif Soal-Soal Buku Teks Matematika kelas VII Berdasarkan Taksonomi Bloom*, Universitas Negeri Sriwijaya Journal

B. Some Pertinent Ideas

1. Bloom's Taxonomy

Taxonomy was first designed by Benjamin S. Bloom in 1956. According to Bloom, educational goals are divided into several domains and each domain or domain is re-divided into more detailed divisions based on hierarchy.

Bloom was a gifted teacher who carried out research on the development of a classification of levels of thinking during the learning process. He believed that teachers should design lessons and tasks to help students to meet stated objectives. Bloom identified three domains of learning – cognitive, affective and psycho-motor – and within each of these domains he recognized that there was an ascending order of complexity. His work is most advanced in the cognitive domain where he drew up a classification (or taxonomy) of thinking behaviors from the simple recall of facts up to the process of analysis and evaluation.[8]

a. Cognitive

Bloom's taxonomy is frequently used for writing learning outcomes, since it provides a ready-made structure and list of verbs. It can be argued that the use of the correct verbs is the key to the successful writing of learning outcomes. Bloom's original list of verbs was limited and has been extended by various authors over the years. The list of verbs given in this article has been compiled from a combination of Bloom's original publication and from the more modern literature in this area. It is not claimed that the list of verbs suggested for each stage is exhaustive, but it is hoped that the reader will find the lists to be reasonably comprehensive.[9]

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[8]Bloom Benjamin S. *Taxonomy of Educational Objectives: Handbook 1, the Cognitive Domain.*1956.

[9] *Learning Outcomes Assessmen.*, Validation Non-Formal/Formal in Russia Higher Education. Danubes University Krems, Austria.

b. Knowledge

Knowledge may be defined as the ability to recall or remember facts without necessarily understanding them. Some of the action verbs used to assess knowledge are as follows:

Arrange, collect, define, describe, duplicate, enumerate, examine, find, identify, label, list, memorise, name, order, outline, present, quote, recall, recognise, recollect, record, recount, relate, repeat, reproduce, show, state, tabulate, tell.[10]

Some examples of learning outcomes for courses in various disciplines that demonstrate evidence of knowledge include the following:

(1) Recall genetics terminology: homozygous, heterozygous, phenotype, genotype, homologous chromosome pair, etc.

(2) Identify and consider ethical implications of scientific investigations.

(3) Describe how and why laws change and the consequences of such changes on society.

(4) List the criteria to be taken into account when caring for a patient with tuberculosis.

b. Comprehension

Comprehension may be defined as the ability to understand and interpret learned information. Some of the action verbs used to assess comprehension are as follows:

Associate, change, clarify, classify, construct, contrast, convert, decode, defend, describe, differentiate, discriminate, discuss, distinguish, estimate, explain, express, extend, generalise, identify, illustrate, indicate, infer,

[10]*Learning Outcomes Assessmen*., Validation Non-Formal/Formal in Russia Higher Education. Danubes University Krems, Austria.

interpret, locate, paraphrase, predict, recognise, report, restate, rewrite, review, select, solve, translate.[11]

c. Application

Application may be defined as the ability to use learned material in new situations, e.g. put ideas and concepts to work in solving problems. Some of the action verbs used to assess application are shown as follows:

Apply, assess, calculate, change, choose, complete, compute, construct, demonstrate, develop, discover, dramatise, employ, examine, experiment, find, illustrate, interpret, manipulate, modify, operate, organise, practice, predict, prepare, produce, relate, schedule, select, show, sketch, solve, transfer, use.[12]

d. Analysis

Analysis may be defined as the ability to break down information into its components, e.g. look for inter-relationships and ideas (understanding of organisational structure). Some of the action verbs used to assess analysis are as follows:

Analyse, appraise, arrange, break down, calculate, categorise, classify, compare, connect, contrast, criticise, debate, deduce, determine, differentiate, discriminate, distinguish, divide, examine, experiment, identify, illustrate, infer, inspect, investigate, order, outline, point out, question, relate, separate, sub-divide, test.[13]

e. Synthesis

Synthesis may be defined as the ability to put parts together. Some of the action verbs used to assess synthesis are the following:

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[11]*Learning Outcomes Assessmen*., Validation Non-Formal/Formal in Russia Higher Education. Danubes University Krems, Austria.

[12]*Learning Outcomes Assessmen*., Validation Non-Formal/Formal in Russia Higher Education. Danubes University Krems, Austria.

[13]*Learning Outcomes Assessmen*., Validation Non-Formal/Formal in Russia Higher Education. Danubes University Krems, Austria.

Argue, arrange, assemble, categorise, collect, combine, compile, compose, construct, create, design, develop, devise, establish, explain, ormulate, generalise, generate, integrate, invent, make, manage, modify, organise, originate, plan, prepare, propose, rearrange, reconstruct, relate, reorganise, revise, rewrite, set up, summarise.[14]

f. Evaluation

Evaluation may be defined as the ability to judge the value of material for a given purpose. Some of the action verbs used to assess evaluation are:

Appraise, ascertain, argue, assess, attach, choose, compare, conclude, contrast, convince, criticise, decide, defend, discriminate, explain, evaluate, grade, interpret, judge, justify, measure, predict, rate, recommend, relate, resolve.

2. Affective

Whilst the cognitive domain is the most widely used of Bloom's Taxonomy, Bloom and his co-workers also carried out research on the affective ("attitudes", "feelings", "values") domain. This domain is concerned with issues relating to the emotional component of learning and ranges from basic willingness to receive information to the integration of beliefs, ideas and attitudes. In order to describe the way in which we deal with things emotionally, Bloom and his colleagues developed five major categories:[15]

a. Receiving

This refers to a willingness to receive information, e.g. the individual accepts the need for a commitment to service, listens to others with respect, shows sensitivity to social problems, etc.

[14]*Learning Outcomes Assessmen*., Validation Non-Formal/Formal in Russia Higher Education. Danubes University Krems, Austria.

[15]*Learning Outcomes Assessmen*., Validation Non-Formal/Formal in Russia Higher Education. Danubes University Krems, Austria.

b. Responding

This refers to the individual actively participating in his or her own learning, e.g. shows interest in the subject, is willing to give a presentation, participates in class discussions, enjoys helping others, etc.

c. Valuing

This ranges from simple acceptance of a value to one of commitment, e.g. the individual demonstrates belief in democratic processes, appreciates the role of science in our everyday lives, shows concern for the welfare of others, shows sensitivity towards individual and cultural differences, etc.

d. Organisation

This refers to the process that individuals go through as they bring together different values, resolve conflicts among them and start to internalise the values, e.g. recognises the need for balance between freedom and responsibility in a democracy, accepts responsibility for his or her own behaviour, accepts professional ethical standards, adapts behaviour to a value system, etc.

e. Characterisation

At this level the individual has a value system in terms of their beliefs, ideas and attitudes that control their behavior in a consistent and predictable manner, e.g. displays self reliance in working independently, displays a professional commitment to ethical practice, shows good personal, social and emotional adjustment, maintains good health habits, etc.

3. Psychomotor

The psychomotor domain mainly emphasises physical skills involving co-ordination of the brain and muscular activity. From a study of the literature, it would

appear that this domain has been less well developed in the field of education than either the cognitive or affective domain. The psychomotor domain is commonly used in areas like laboratory science subjects, health sciences, art, music, engineering, drama and physical education. Bloom and his research team did not complete detailed work on the psychomotor domain as they claimed lack of experience in teaching these skills. However, a number of authors have suggested various versions of taxonomies to describe the development of skills and co-ordination. For example, Dave (1970) proposed a hierarchy consisting of five levels:

(1) Imitation

Observing the behaviour of another person and copying this behaviour. This is the first stage in learning a complex skill.

(2) Manipulation

Ability to perform certain actions by following instructions and practicing skills.

(3) Precision

At this level, the student has the ability to carry out a task with few errors and become more precise without the presence of the original source. The skill has been attained and proficiency is indicated by smooth and accurate performance.

(4) Articulation

Ability to co-ordinate a series of actions by combining two or more skills. Patterns can be modified to fit special requirements or solve a problem.

(5) Naturalisation

Displays a high level of performance naturally (“without thinking”). Skills are combined, sequenced and performed consistently with ease.

2. Revision of Bloom's Taxonomy

This taxonomy had permeated teaching and instructional planning for almost 50 years before it was revised in 2001. And although these crucial revisions were published in 2001, surprisingly there are still educators who have never heard of Anderson and Krathwohl or their important work in relation to Bloom's Cognitive Taxonomy. Both of these primary authors were in a perfect position to orchestrate looking at the classic taxonomy critically. They called together a group of educational psychologists and educators to help them with the revisions. Lorin Anderson was once a student of the famed Benjamin Bloom, and David Krathwohl was one of Bloom's partners as he devised his classic cognitive taxonomy. Anderson modified the original terminology by changing Bloom's categories from nouns to verbs. Anderson renamed the knowledge category into remember, comprehension into understanding and synthesis into create categories. Anderson also changed the order of synthesis and placed it at the top of the triangle under the name of *Create*. Thus, Anderson and Krathwohl's revised Bloom's taxonomy became: Remember, Understand, Apply, Analyze, Evaluate and Create.

a. Remembering

Remembering is the ability to remember previously learnt material. Remembering involves retrieving relevant knowledge from long term memory. The two associated cognitive processes are *recognizing* and *recalling.*[16] To assess student learning in the simplest process category, the student is given a recognition or recall task under conditions very similar to those in which he or she learned the material. Little, if any, extension beyond those conditions is expected. lf, for example, a

[16] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

student learned the English equivalents of 20 vocabulary, then a test of remembering could involve requesting the student to match the vocabulary in one list with their English equivalents in a second list (i.e., *recognize)* or to write the corresponding English word next to each of the vocabulary presented in the list (i.e., *recall).*

Remembering knowledge is essential for meaningful learning and problem solving as that knowledge is used in more complex tasks. For example, knowledge of the correct spelling of common English words appropriate to a given grade level is necessary if the student is to master writing an essay. Where teachers toncentrate solely on rote learning, teaching and assessing focus solely on remembering elements or fragments of knowledge, often in isolation from their context. When teachers focus on meaningful learning, however, remembering knowledge is integrated within the larger task of constructing new knowledge or solving new problems.[17]

1. Recognizing involves retrieving relevant knowledge from long-term memory in order to compare it with presented information[18]. In *recognizing*, the student searches long-term memory for a piece of infonnation that is identical or extremely similar to the presented information (as represented in working memory). When presented with new infonnation, the student determines whether that infonnation corresponds to previously leamed knowledge, searching for a match. An alternative term for *recognizing* is identifying.
2. *Recalling* involves retrieving relevant knowledge from long-term memory when given a prompt to do so. The prompt is often a question. In *recalling,* a student searches long-term memory for a piece of information and brings that

[17] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

[18] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

piece of information to working memory where it can be processed. An alternative term for *recalling* is retrieving.[19]

b. Understanding

As we indicated, when the primary goal of instruction is to promote retention, the focus is on objectives that emphasize *Remember.* When the goal of instruction is to promote transfer, however, the focus shifts to the other five cognitive processes, *Understand* through *Create.* Of these, arguably the largest category of transfer-based educational objectives emphasized in schools and colleges is *Understand.*[20]Students are said to *Understand* when they are able to construct meaning from instructional messages, including oral, written, and graphic communications, however they are presented to students: during lectures, in books, or on computer monitors. Examples of potential instructional messages include an in-class physics demonstration, a geological formation seen on a field trip, a computer simulation of a trip through an art museum, and a musical work played by an orchestra, as well as numerous verbal, pictorial, and symbolic representati.ons on paper.

Students understand when they build connections between the "new" knowledge tobe gained and their prior knowledge. More specifically, the incoming knowledge is integrated with existing schemas and cognitive frameworks. Since concepts are the building blocks for these schemas and frameworks, *Conceptual knowledge* provides a basis for understanding. Cognitive processes in the category of *Understand* include *interpreting, exemplifying, classifying, summarizing,inferring, comparing,* and *explaining.*

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[19] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

[20] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

1. lnterpretingoccurs when a student is able to convert information from one representational form to another.[21]*Interpreting* may involve converting words to words (e.g., paraphrasing), pictures to words, words to pictures, numbers to words, words to numbers, musical notes to tones, and the like.

2. *Exemplifying* occurs when a student gives a specific example or instance of a general concept or principle[22]. *Exemplifying* involves identifying the defining features of the general concept or principle (e.g., an isosceles triangle must have two equal sides) and using these features to select or construct a specific instance (e.g., being able to select which of three presented triangles is an isosceles triangle). Alternative terms are illustrating and instantiating.

3. *Classifying* occurs when a student recognizes that something (e.g., a particular instance or example) belongs to a certain category (e.g., concept or principle). *Classifying* involves detecting relevant features or patterns that "fit" both the specific instance and the concept or principle. *Classifying* is a complementary process to *exemplifying.*[23]Whereas *exemplifying* begins with a general concept or principle and requires the student to find a specific instance or example, *classifying* begins with a specific instance or example and requires the student to find a general concept or principle. Alternative terms for *classifying* are categorizing and subsuming.

4. *Summarizing* occurs when a student suggests a single statement that represents presented information or abstracts a general theme. *Summarizing* in valves constructing a representation af the information, such as the meaning of a scene in

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[21] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

[22] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

[23] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

play, and abstracting a summary from it, such as determining a theme or main paints. Alternative terms are generalizing and abstracting.

5. *Inferring* in valves finding a pattern within a series af examples ar instances. *Inferring* occurs when a student is able to abstract a concept or principle that accounts for a set of examples or instances by encoding the relevant features of each instance and, most important, by noting relationships arnong them.[24] For example, when given a series of numbers such as 1, 2, 3, 5, 8, 13, 21, a student is able to focus on the numerical value of each digit rather than on irrelevant features such as the shape of each digit or whether each digit is odd or even. He or she then is able to distinguish the pattern in the series of numbers (i.e., after the first two numbers, each is the sum of the preceding two numbers).

The process of *inferring* involves making comparisons among instances within the context of the entire set. For example, to determine what number will corne next in the series above, a student must identify the pattern. Arelated process is using the pattem to create a new instance (e.g., the next number on the series is 34, the sum of 13 and 21). This is an example of *executing,* which is a cognitive process associated with *Apply. lnferring*and *executing* areoften used together on cognitive tasks.

Finally, *inferring* is different from *attributing* (a cognitive process associated with *Analyze). As* we discuss later in this chapter, *attributing* focuses solely on the pragmatic issue of determining the author's point of view or intention, whereas *inferring* focuses on the issue of inducing a pattem based on presented information. Another way of differentiating between these two is that *attributing* is broadly

[24] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

applicable to situations in which one must "read between the lines," especially when one is seeking to determine an author's point of view. *Inferring*, on the other hand, occurs in a context that supplies an expectation of what is tobe inferred. Alternative terms for *inferring* are extrapolating, interpolating, predicting, and concluding.

6. *Comparing* involves detecting similarities and differences between two or more objects, events, ideas, problems, or situations, such as determining how a wellknown event (e.g., a recent political scandal) is like a less familiar event (e.g., a historical political scandal). *Comparing* includes finding one-to-one correspondences between elements and patterns in one object, event, or idea and those in another object, event, or idea[25]. When used in conjunction with *inferring* (e.g., first, abstracting a rule from the more familiar situation) and *implementing* (e.g., second, applying the rule to the less familiar situation), *comparing* can contribute to reasoning by analogy. Alternative terms are contrasting, matching, and mapping.

7. *Explaining* occurs when a student is able to construct and use a cause-and effect model of a system. The model may be derived from a formal theory (as is often the case in the natural sciences) or may be grounded in research or experience (as is often the case in the social sciences and humanities). A complete explanation involves constructing a cause-and-effect model, including each major part in a system or each major event in the chain, and using the model to determine how a change in one part of the system or one "link" in the chain affects a change in another part. An alternative term for *explaining* is constructing a model.[26]

c. Applying

[25] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

[26] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

Apply involves using procedures to perform exercises or solve problems. Thus, *Apply* is closely linked with *Procedural knowledge.* An exercise is a task for which the student already knows the proper procedure to use, so the student has developed a fairly reutilized approach to it. A problem is a task for which the student initially does not know what procedure to use, so the student must locate a procedure to solve the problem. The *Apply* category consists of two cognitive processes: *executing-when* the task is an exercise (familiar)-and *implementing-when* the task is a problem (unfamiliar).

When the task is a familiar exercise, students generally know what *Procedural knowledge* to use. When given an exercise (or set of exercises), students typically perform the procedure with little thought. For example, an algebra student confronted with the 50th exercise involving quadratic equations might simply "plug in the numbers and turn the crank."

When the task is an unfamiliar problem, however, students must determine what knowledge they will use. If the task appears to call for *Procedural knowledge* and no available procedure fits the problem situation exactly, then modifications in selected *Procedural knowledge* may be necessary. In contrast to *executing,* then, *implementing* requires some degree of understanding of the problem as well as of the solution procedure. In the case of *implementing,* then, to *understand conceptual knowledge* is a prerequisite to being able to *apply procedural knowledge.*

1. In *executing,* a student routinely carries out a procedure when confronted with a familiar task (i.e., exercise). The familiarity of the situation often provides sufficient clues to guide the choice of the appropriate procedure to use. *Executing* is more frequently associated with the use of skills and algorithms

than with techniques and methods. Skills and algorithms· have two qualities that make them particularly amenable to *executing.* First, they consist of a sequence of steps that are generally followed *in a fixed order.* Second, when the steps are performed correctly, the end result is a predetermined answer. An alternative term for *executing* is carrying out.[27]

2. *Implementing* occurs when a student selects and uses a procedure to perform an unfamiliar task. Because selection is required, students must possess an understanding of the type of problem encountered as well as the range of procedures that are available. Thus, *implementing* is used in conjunction with other cognitive process categories, such as *Understand* and *Create.* Because the student is faced with an unfamiliar problem, he or she does not immediately know which of the available procedures to use. Furthermore, no single procedure may be a "perfect fit" for the problem; some modification in the procedure may be needed. *Implementing* is more frequently associated with the use of techniques and methods than with skills and algorithms. Techniques and methods have two qualities that make them particularly amenable to *implementing.* First, the procedure may be more like a "flow chart" than a fixed sequence; that is, the procedure may have "dedsion points" built into it. Second, there often is no single, fixed answer that is expected when the procedure is applied correctly.

To see why it fits, think of the *Apply* category as structured along a continuum. lt starts with the narrow, highly structured *execute,* in which the known *Procedural knowledge* is applied almost routinely. It continues through the broad,

[27] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

increasingly unstructured *implement,* in which, at the beginning, the procedure must be selected to fit a new situation. In the middle of the category, the procedure may have to be modified to *implement* it. At the far end of *implementing,* where there is no set *Procedural knowledge* to modify, a procedure must be manufactured out of *Conceptual knowledge* using theories, models, or structures as a guide. So, although *Apply* is closely linked to *Procedural knowledge,* and this linkage carries through most of the category of *Apply,* there are some instances in *implementing* to which one applies *Conceptual knowledge* as well. An alternative term for *implementing* is using.

d. Analyzing

Analyze involves breaking material into its constituent parts and determining how the parts are related to ~e another and to an overall structure. This process category includes the cognitive processes of *differentiating, organizing,* and *attributing.* Objectives classified as *Analyze* include learning to determ.ine the relevantor important pieces of a message *(dijferentiating),* the ways in which the pieces of a message are organized *(organizing),* and the underlying purpose of the message *(attributing).* Although learning to *Analyze* may be viewed as an end in itself, it is probably more defensible educationally to consider analysis as an extension of *Understanding* or as a prelude to *Evaluating* or *Creating.*[28] Improving students' skills in analyzing educational communications is a goal in many fields of study. Teachers of science, social studies, the humanities, and the arts frequently give "learning to analyze" as one of their important objectives.

1. *Differentiating* involves distinguishing the parts of a whole structure in terms of their relevance or importance. *Differentiating* occurs when a student

[28] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

discriminates relevant from irrelevant information, or important from unimportant information, and then attends to the relevant or important information. *Differentiating* is different from the cognitive processes associated with *Understand* because it involves structural organization and, in particular, determining how the parts fit into the overall structure or whole.[29] More specifically, *differentiating* differs from *comparing* in using the larger context to determine what is relevant or important and what is not. For instance, in *differentiating* apples arid oranges in the context of fruit, internal seeds are relevant, but color and shape are irrelevant. In *romparing*, all of these aspects (i.e., seeds, color, and shape) are relevant. Alternative terms for *differentiating* are discriminating, selecting, distinguishing, and focusing.

2. *Organizing* involves identifying the elements of a communication or situation and recognizing how they fit together into a coherent structure. In *organizing*, a student builds systematic and coherent connections among pieces of presented information.[30]*Organizing* usually occurs in conjunction with *differentiating.* The student first identifies the relevant or important elements and then determines the overall structure within which the elements fit. *Organizing* can also occur in. conjunction with *attributing,* in which the focus is on determining the author's intention or point of view. Alternative terms for *organizing* are structuring, integrating, finding coherence, outlining, and parsing.

[29]Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

[30] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

3. *Attributing* occurs when a student is able to ascertain the point of view, biases, values, or intention underlying communications.[31]*Attributing* involves a process of deconstruction, in which a student determines the intentions of the author of the presented material. In contrast to *interpreting*, in which the student seeks to *Understand* the meaning of the presented material, *attributing* involves an extension beyond basic understanding to infer the intention or point of view underlying the presented material. For example, in reading a passage on the battle of Atlanta in the American Civil War, a student needs to determine whether the author takes the perspective of the North or the South. An alternative term is deconstructing.

e. Evaluating

Evaluate is defined as making judgments based on criteria and standards. The criteria most often used are quality, effectiveness, efficiency, and consistency. They may be determined by the student or by others. The standards may be either quantitative (i.e., Is this a sufficient amount?) or qualitative (i.e., Is this good enough?). The standards are applied to the criteria {e.g., Is this process sufficiently effective? Is this product of sufficient quality?).[32] The category *Evaluate* in dudes the cognitive processes of *checking* segments about the internal consistency) and *critiquing* judgments based on external criteria). It must be emphasized that not all judgments are evaluative. For example, students make judgments about whether a specific example fits within a category.

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[31] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

[32] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

They make judgments about the appropriateness of a particular procedure for a specified problem. They make judgments about whether two objects are similar or different. Most of the cognitive processes, in fact, require some form of judgment. What most clearly differentiates *Evaluate* as defined here from other judgments made by students is the use of standards of performance with clearly defined criteria. Is this machine working as efficiently as it should be? Is this method the best way to achieve the goal? Is this approach more cost effective than other approaches? Such questions are addressed by people engaged in *Evaluating.*

1. *Checking* involves testing for internal inconsistencies or fallacies in an operation or a product. For example, *checking* occurs when a student tests whether or not a conclusion follows from its premises, whether data support or disconfirm a hypothesis, or whether presented material contains parts that contradict one another. [33]When combined with *planning* (a cognitive process in the category *Create)* and *implementing* (a cognitive process in the category *Apply),* checking· involves determining how well the plan is working. Alternative terms for *checking* are testing, detecting, monitoring, and coordinating.
2. *Critiquing* involves judging a product or operation based on externally imposed criteria and standards.[34] In *critiquing,* a student notes the positive and negative features of a product and makes a judgment based at least partly on those features. *Critiquing* lies at the core of what has been called critical thinking. An example of *critiquing* is judging the merits of a particular

[33] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

[34] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

solution to the problem of acid rain in terms of its likely effectiveness and its associated costs (e.g., requiring all power p1ants throughout the country to restrict their smokestack emissions to certain limits). An alternative term is judging.

f. Creating

Create involves putting elements together to form a coherent or functional whole. Objectives classified as *Create* have students make a new product by mentally reorganizing some elements or parts into a pattern or structure not clearly present before. [35]The processes involved in *Create* are generally coordinated with the student's previous learning experiences. Although *Create* requires creative thinking on the part of the student, this is not completely free creative expression unconstrained by the demands of the learning task or situation.

To some persons, creativity is the production of unusual products, often as a result of some special skill. *Create*, as used here, however, although it includes objectives that call for unique production, also refers to objectives calling for production that all students can and will do. If nothing else, in meeting these objectives, many students will create in the sense of producing their own synthesis of information or materials to form a new whole, as in writing, painting, sculpting, building, and so on.

Although many objectives in the *Create* category emphasize originality (or uniqueness), educators must define what is original or unique. Can the term *unique* be used to describe the work of an individual student (e.g., "This is unique for Adam Jones") or is it reserved for use with a group of students (e.g., "This is unique for a

[35] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

fifth-grader")? lt is important to note, however, that many objectives in the *Create* category do not rely on originality or uniqueness. The teachers' intent with these objectives is that students should be able to synthesize material into a whole. This synthesis is often required in papers in which the student is expected to assemble previously taught material into an organized presentation.

The creative process can be broken into three phases: problem representation, in which a student attempts to understand the task and generate possible solutions; solution planning, in which a student examines the possibilities and devises a workable plan; and solution execution, in which a student successfully carries out the plan. Thus, the creative process can be thought of as starting with a divergent phase in which a variety of possible solutions are considered as the student attempts to understand the task *(generating).* This is followed by a convergent phase, in which the student devises a solution method and tu.ms it into a plan of action *(planning).* Finally, the plan is executed as the student constructs the solution *(producing)* It is not surprising, then, that *Create* is associated with three cognitive processes: *generating*, *planning*, and *producing.*

1. *Generating* involves representing the problem and arriving at alternatives or hypotheses that meet certain criteria. Often the way a problem is initially represented suggests possible solutions; however, redefining or coming up with a new representation of the problem may suggest different solutions. When *generating* transcends the boundaries or constraints of prior knowledge and existing theories, it involves divergent thinking and forms the core of what can be called creative thinking. *Generating* is used in a restricted sense here. *Understand* also requires generative processes,

which we have included in *translating, exemplifying, summarizing, inferring, classifying, comparing,* and *explaining.* However, the goal of *Understand* is most often convergent (that is, to arrive at a single meaning). In contrast, the goal of *generating* within *Create* is divergent (that is, to arrive at various possibilities). An alternative term for *generating* is hypothesizing.[36]

2. *Planning* involves devising a solution method that meets a problem's criteria, that is, developing a plan for solving the problem. *Planning* stops short of carrying out the steps to create the actual solution for a given problem.[37] In *planning,* a student may establish sub goals, or break a task into subtasks to be performed when solving the problem. Teachers often skip stating *planning* objectives, instead stating their objectives in terms of *producing,* the final stage of the creative process. When this happens, *planning* is either assumed or implicit in the *producing* objective. In this case, *planning* is likely to be carried out by the student covertly during the course of constructing a product (i.e., *producing).* An alternative term is designing.
3. *Producing* involves carrying out a plan for solving a given problem that meets certain specifications.[38] As we noted earlier, objectives within the category *Create* may or may not include originality or uniqueness as one of the specifications. So it is with *producing* objectives.

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[36] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

[37] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, Longman, 2001

[38] Anderson Lorin W. dkk , *a Taxonomy for Learning, Teaching and Assessing; a Revision of Bloom's Taxonomy of Educational Objectives*, longman, 2001

3. HOTS (Higher Order Thinking Skill)

Higher Order Thinking Skills are defined therein including critical, logical, reflective, metacognitive and creative thinking. All of these skills are active when someone is dealing with unusual problems, uncertainties, questions and choices. Successful application of this skill is contained in valid explanations, decisions, appearances, and products according to the contest of existing knowledge and experience and the continued development of this skill or other intellectual skills.[39]

According to Heong higher order thinking is using the thinking widely to find new challenge. Higher order thinking demands someone to apply new information or knowledge that he has got and manipulates the information to reach possibility of answer in new situation. Brookhart states that higher-order thinking conceived of as the top end of the Bloom's cognitive taxonomy. The teaching goal behind any of the cognitive taxonomies is equipping students to be able to do transfer. "Being able to think" means students can apply the knowledge and skills they developed during their learning to new contests. "New" here means applications that the student has not thought of before, not necessarily something uni-versally new. Higher-order thinking is conceived as students being able to relate their learning to other elements beyond those they were taught to associate with it.[40]

4. LOTS (Low Order Thinking Skill)

Lower- order cognitive questions embrace chiefly recall, comprehension and application; higher order questions, by contrast, involve analysis, synthesis and

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[39]King, FJ, FaranakRohani. *Higher Order Thinking Skill.* Center forAdvancement of Learning and Assessment.Retrived by (http://www.cala.fsu.edu/files/higher_order_thinking_skill.pdf)

[40]Martha Dewa Kusuma, Undang Rosidin, dkk.*the Development Higher Order Thinking Skill (HOTS) the Instrumenr Assessment in Physics Study*. OSR Journal Of Research &Method in Education (IOSR-JRME). (Jan.-Feb. 2017) P. 26-32.

evaluation. Lower order questions tend to closed questions (when a known response is sought); higher order questions tend to be open questions (when the type of response is known but the actual response is not, students being free to respond in their own way). Lower order questions are knowledge, comprehension and application based which encourage lower levels of thinking while higher order questions develop in students the ability to critically analyze and evaluate the concepts and ideas.[41]

Bloom and his colleagues in 1956 developed a continuum for categorizing questions and responses. Bloom's taxonomy includes the following elements, arranged from lowest to highest order: Knowledge: recalling specific facts; Comprehension: describing in one's own words; Application: applying information to produce some result; Analysis: subdividing something to show how it is put together; Synthesis: creating a unique, original product; and Evaluation: making value decisions about issues. The first three levels of this system deal with lower-order thinking skills that are essential in laying the foundation for deeper understanding. The last three employ higher-order thinking skills.[42]

Resnick noted that thinking skills resist precise forms of definition, but lower- and higher-order thinking can be recognized when each occurs. Lower-order thinking (LOT) is often characterized by the recall of information or the application of concepts or knowledge to familiar situations and contests. Schmalz noted that LOT tasks requires a student "... to recall a fact, perform a simple operation, or solve a familiar type of problem. It does not require the student to work outside the familiar" (p. 619).Senk, Beckman, & Thompson characterized LOT as solving tasks where the

[41]www.oir.uiuc.edu/Did/docs/QUESTION/quest1.htm
[42]Hopper, C.H.*Practicing College Learning Strategies*. (5thEd). Cengage Learning, Inc. 2009

solution requires applying a well-known algorithm, often with no justification, explanation, or proof required, and where only a single correct answer is possible. In general, LOT is generally characterized as solving tasks while working in familiar situations and contests; or, applying algorithms already familiar to the student.[43]

Higher Order Thinking Skills (HOTS) are high-level thinking skills that consist of the ability to analyze, evaluate and create. Thinking skills according to Bloom are divided into two levels, namely Lower Order Thinking Skills and Higher Order Thinking Skills. Lower Order Thinking Skills (LOTS) consist of knowledge, understanding and application while HOTS consists of analysis, synthesis and evaluation.[44]

According to Kings, Goodson, and Rohani, HOTS are the ability to think that not only requires the ability to remember, but also higher capabilities. HOTS are student's abilities that are activated when students encounter unfamiliar problems, uncertainties, questions, or dilemmas. Moreover Pogrow states that HOTS are valued because they are believed to prepare students better for the challenges both in advanced academic life and adult's work and responsibility in daily basis. Therefore, HOTS can be used to predict the success of a student. Students who have good level of HOTS are expected to succeed in their studies later.[45]

[43]Tony Thopmson.Mathematic *Teacher Interpretation of Higher Order Thinking Skill in Bloom's Taxonomy*.International Electronic Journal Of Mathematic Education. Vol.3 (July 2008).

[44]Soeharto,Rosmaiyadi. *The Analysis of Students' Higher Order Thinking Skills (HOTS) in Wave and Optics Using IRT with winstep Software*. Journal of Science and Technology *Volume 4 Number 3 December 2018 page 145-150.*

[45]BenudiktusTanujaya, jeniemumu. *The Relationship between Higher Order Thinking Skills and Academic Performance of Student in Mathematics Instruction*. International Education Studies; Vol. 10, No. 11; 2017

5. Rasch Model

Proponents of the Rasch Model model claim that it is distinctive in terms of its focus on the production of interval-level measurement. There is an important emphasis that tests and questionnaires should produce data that fit the model as the RM sets out the criteria for successful measurement. From that perspective, the Rasch model is indispensable for the construction of invariant measurement scales and the monitoring of their performance across samples and over time; e.g., the calibration of large item banks.[46]

For all items and persons in a data matrix the Rasch model estimates how much of the underlying latent trait is revealed in each person ability and item difficulty, estimated along a logit (log odds unit) scale that is common to items and persons. The total score (N correct responses for ability; N persons correct for item difficulty) is the sufficient statistic for estimating Rasch measures; i.e., total score is the sufficient statistic for person ability as it contains the complete information about that ability. Additionally, fit statistics are used as quality control mechanisms to determine which test items should be added together to produce total scores; misfitting items/persons should be put to one side for later consideration. Indeed, the requirements of the Rasch model are often seen as the explicit statement of the implied conditions of any technique which uses total N correct as a summary statistic, based on those performances which should/not be counted, and the transformation of those counts to an interval measurement scale. [47]

[46] Andrich, D. *Rasch models for measurement*. Newbury Park, CA: Sage. 1988

[47] Wright, B.D and Masters, G.N, *Rating Scale Analysis: Rasch Measurement*, Chicago: MESA press, 1982

The RM feature of parameter separation supports the model's goal of specific objectivity: item/person estimates are calculated independently of the distribution of those difficulties / abilities in the item / person sample. The consequence of specific objectivity is the requirement for invariant measures: item difficulties should remain the same (within error) across all appropriate samples, and person estimates should not vary according to the choice of items in a test. Lack of invariance, say, revealed as DIF (differential item functioning) should prompt diagnostic consideration of item/person performances.

In the RM for dichotomous data, the probability of any correct response is modeled as a logistic function of the difference between person ability and item difficulty, each expressed in logits (log odds units): higher ability persons are more likely to succeed on all items; less difficult questions will be more easily responded to by all persons; and the order of the item difficulties remains the same for all persons. For polytomous data, the Rating Scale Model (RSM) predominates in the analysis of Likert-style data, while Partial Credit Rasch Model (PCM) allows response options to vary across items. The many-facets Rasch model (MFRM) provides for the estimation of additional facet(s), such as rater severity when judges are used to score persons on items according to graded criteria (e.g., essay marking, performance certification.)[48]

For the content aspect, the fit statistics are used to check the relevance of the intended test construct. These also highlight any misfitting items that are possibly representing a different construct. Person-item maps (graphical representations of the difficulty of all items and the ability of all test-takers) allow for verification of the

[48] Rasch, G. (1960/1980). Probabilistic models for some intelligence and attainment tests (Expanded ed.). Chicago: University of Chicago Press.

representativeness of test content since gaps indicate that some domain of the construct has not been assessed (Baghaei, 2008). This can also be examined with item strata, which identify statistically distinct levels of difficulty and ability. Examining item-strata is generally used for the purposes of ensuring that a range of item-difficulties have been included (Smith, 2001). The technical quality aspect of content validity can be examined with item-measure correlations, which indicate how strongly the item is measuring the direction of the construct. Specifically, this measure identifies any items causing high ability students to respond incorrectly when low ability students are responding correctly.[49]

Fit statistics can also be used to provide evidence of the substantive aspect since they examine how a test-taker's response patterns match those predicted by the model (thus representing to some extent, the degree to which test-takers are engaged with the item). The fit statistics can also guide scoring of the test – for instance, they may indicate that reporting a single score is insufficient and that separate scores should be reported. This kind of information has implications towards the structural aspect of construct validity. Multiply choice question (MCQ) distractor analyses, which ensure that the distractors are indeed distracting test-takers in a meaningful way, provide additional arguments towards the structural aspect.[50]

The simple general form of MFRM can be formulated as follows :

$$log \frac{P_{njik}}{P_{njik}} = B_n - D_i - C_j - F_k$$

[49] Boone, W., & Scantlebury, K. (2006). The role of Rasch analysis in science education utilizing multiple choice tests. Science Educationm, 90, 253-269.Kelly, T. L. (1927). Interpretation of educational measurements. New York; Macmillan

[50] Wolfe, E. W., & Smith, E. V. (2007). Instrument development tools and activities for measure validation using Rasch models: Part II-validation activities. Journal of Applied Measurement, 8(2), 204-234.

Where :

P_{njik} is the probability of examine *n* being awarded on item *i* by judge *j* a rating of *k*

P_{njik} is the probability of examine *n* being awarded on item *I* by judge *j* a rating of *k-l*

B_n is the ability of examine *n*

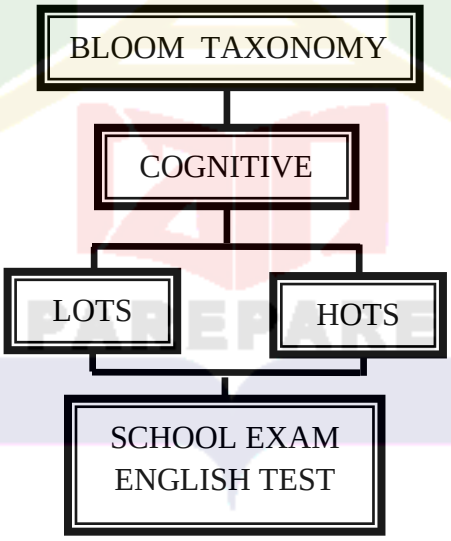
D_i is the difficult of item *i*

C_j is the severity of judge *j*

F_k is the extra difficult overcome in being observed at the level category *k*, relative to category *k–l*

C. Conceptual Framework

In this research, the researcher describes the process of the research, starting from the adoptier of the chosen theory to the process of applying the theory. The conceptual framework of this research is designed as follow :



Based on the framework above, the researcher uses or adopts the revised bloom taxonomy theory about the importance of critical thinking as a reference in this study. By focusing on cognitive domains or comprehension abilities. In this

cognitive domain, there are 2 important components that indicate the level of understanding quality, namely low order thinking skills (LOTS) and Higher order thinking skills (HOTS). In each level of understanding quality, there are stages or categories, namely in LOTS, there are remember (C1), understand (C2), apply (C3), while HOTS contains analyze (C4), evaluate (C5) and Create (C6). From the application of the theory of the revised bloom taxonomy, the researcher took the SMK school exam English test at Parepare to measure the quality of item exam test that were applied in SMK at Parepare in 2019.

CHAPTER III
RESEARCH METHOD

A. Design of the Research

The design of this research was used critical thinking discourse analyzing (content analysis) that show the cognitive aspect on school exams test of vocational high school at Parepare based on cognitive of revision of Taxonomy Bloom and expert English education.

B. Location and Duration of the Research

The location of this research took a place in all vocational high school at Parepare. This research took two months to collect and analyze the data.

C. Participant

Participant of the research was the English teachers of state vocational high school at Parepare and expert in English education. Sampling was done by using total sampling technique. Total sampling was obtained from coordination with the MGMP coordinator for English majoring in Parepare.

D. Instrument of the Research

The researcher used LOTS and HOTS checklist as instrument of this research. He collected the data then classified the test item include C1, C2,C3, C4, C5 and C6. For LOTS include C1, C2 and C3; for HOTS include C4, C5 and C6.

Table 3.1 The Determination Format of Cognitive Level of Test

Cognitive Domain	Indicator
C1. Remembering	• Using operational words to *recall* or *recognize*

	• The ability used to recognize or recall knowledge that has been previously learned in the form of terms, facts, concepts, procedures and methods
C2. Understanding	• Using operational words to *interpret*, *model*, *classify*, *summarize*, *conclude*, *compare* or *explain* • The ability used in the form of constructing the meaning of the learning material, including spoken, written and grasped by teachers
C3. Applying	• Using operational word *to execute* or *implement* • The ability used in the form of applying or using procedures in certain circumstances
C4. Analyzing	• Using operational words to *differentiate*, *organize* or *attribute* • The ability used in the form of breaking up the material into its constituent parts and determine the relationships between the parts and relations with the whole structure
C5. Evaluating	• Using operational words *check* or *criticize* • The ability to use decisions based on criteria and or standards

C6. Creating	• Using operational words to *formulate, plan* or *create* • Combining parts to form something new or an original product

E. Procedure of Collecting Data

To collect the data, the researcher was used document (school exam test). Documents provide valuable information which helped the researcher to understand central phenomena in quantitative studies. They represent public and private documents. Then the researcher examines the documents from the participants for the accuracy, completeness, and usefulness in answering the research questions.[51] In this case, the researcher took school exam test from all of participant. Then the researcher will classified the test item include C1, C2, C3, C4, C5 and C6. After that it spread to Expert English for analyze the Item test.

F. Technique of Data Analysis

The data was collected by using multi-faceted Rasch Measurement (MFRM) and qualitative analysis (Experts' logic). The steps were following:

1. For the qualitative analyzing (expert logic), the researcher will compare his answer and the expert opinion. Then it will be analyzing expert opinion.
2. The multi-faceted Rasch Measurement (MFRM) model is an extension of the Rasch measurement model. The basic of Rasch model allows the calibration of only two estimates, item difficulty and person ability involved in analyzing dichotomous items. MFRM extends the basic

[51] John W. Creswell, *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research*, Fourth Edition (USA: Pearson Education) p. 223

logistic dichotomous Rasch model by allowing analysis to include more than two facets of the assessment settings, and the data aimed to be analyzed is not necessarily dichotomous (Eckes, 2019). It is therefore probable that additional facets are to be incorporated into the analysis depending on the interest and condition of the assessment. Eckes (2019) elaborated that other facets may include criteria, raters, interlocutors, tasks, and assessment occasions.

BAB IV

FINDING AND DISCUSSION

A. Finding

This section explained the results of the study; 1. Researchers 'perceptions about HOTS question packages A and B of the vocational school exam, and 2. Expert approval of the HOTS assessment of school exam questions package A and B based on the researchers' assessment.

1. LOTS and HOTS for the question package A

The following was the result of the analysis of Low Order Thinking Skills (LOTS) and Higher Order Thinking Skills (HOTS) percentage packages A:

Table 4.1. HOTS and LOTS on Package A

Low Order Thinking Skill (LOTS)			High Order Thinking Skill (HOTS)		
C1	**C2**	**C3**	**C4**	**C5**	**C6**
0(0%)	**3(7.5%)**	**32(80%)**	**5(12.5%)**	**0(0%)**	**0(0%)**

Based on table 4.1. it was found that in general the items were still in the LOTS category were 35 items (87.5%) while the items in the HOTS category were 5 items (12.5%). For the Low Order Thinking Skill (LOTS) category, the item items included in C1 are missing; C2 for 3 items; C3 as many as 32 items. As for the Higher Order Thinking Skill (HOTS), the item items included in C4 are 5 items; C5 and C6 don't exist.

For an explanation in table 4.1. The following is an example of item test in the HOTS and LOTS categories.

i. Wiwik : . . . . hot issue of children abuse ?

Randi : I strongly recommended that the doers be penalized severally.

A. How do you commenting
B. What's your comment on
C. Are you commenting
D. What do you comment

Figure 1. Exam question that is C3 (Application) category

Number 1 on Package A was C3 (Application), Because at this level, application is defined as the ability to apply information obtained in real situations, where students were able to apply their understanding of both concepts and principles by using them in real life. In item 1 of package A, the expert asked students to apply the material or concept in asking questions in English.

10. Mr. Baso : Good morning. My name is Ali Dg. Baso, the new manager
Mrs. Munir : Good morning. I am Besse Munir. It's a pleasure to meet you, Mr. Baso.
Mr. Baso : .....

A. How do you do, Mrs. Munir?
B. Nice to meet you, Mrs. Munir.
C. Let me introduce myself. I am Aliando Dg. Baso
D. I'd like you to meet Mrs. Munir.

Figure 2. Exam question that is 2 (Understanding) category

Number 10 on Package A was C2 (Understanding). At this level, students are expected to be able to understand certain materials that have been learned. Like the

ability to understand a fact, concept and principle. In this section, operational words that can be used in making problems include: estimating, explaining, associating, calculating, comparing, contrasting, concluding, summarizing and describing. In Item 10 of package A, the expert asked students to understand the material in learning English about greetings.

33. Tourist : I don't know this place. Can you tell me where it is located?
Native : Well, It is far enough. Would you like me to show you the place ?
Tourist : Really? It's very kind of you.
The underlined sentences shows us that ....
A. the native is not really sure about the location
B. the native is in doubt about the location
C. the native accepts the tourist's offer to help him
D. the native offers the tourist some help

Figure 3. Exam question that is C4 (Analysis) category

Number 33 on Package A was C4 (Analysis / Analysis). At this level, it can be said that analysis is the ability to decompose a material into clearer components. This ability can be in the form of: (1) Analysis of elements / elements (analysis of material parts), (2) Analysis of relationships (identification of relationships), (3) Analysis of principles organizing. In item 33 of Package A, students are asked to break down information into several parts to find assumptions, and to distinguish opinions and facts and find causal relationships.

2. LOTS and HOTS for the question package B

The following was the result of the analysis of Low Order Thinking Skills (LOTS) and Higher Order Thinking Skills (HOTS) percentage packages B.

Table 4.2. Text B Percentage

Low Order Thinking Skill (LOTS)			High Order Thinking Skill (HOTS)		
C1	**C2**	**C3**	**C4**	**C5**	**C6**
10 (25%)	**2 (5%)**	**3 (7.5%)**	**17 (42.5%)**	**7 (17.5%)**	**1 (2.5%)**

Based on table 4.2. It was found that in general the item items were still in the LOTS category were 15 items (37.5%) while the items in the HOTS category were 25 items (63.5%). For the Low Order Thinking Skill category, 10 item items are included in C1; C2 for 2 items; C3 are 3 items. Whereas for Higher Order Thinking Skills (HOTS), the items included in C4 are 17 items; C5 for 7 items and C6 for 1 item.

For an explanation in table 4.2. The following were examples of items that are included in the HOTS and LOTS categories.

ii.

NOTICE

To : All Employees
Re : Staff Meeting

There will be a staff meeting next Monday at 09.00 A.M. All employees are required to **(1) …** the meeting and to arrive on time. The topic of the meeting is *Improving Employee Motivate.*

Though it has been a long cold winter, we need to stay positive at work. As usual we have (2) … a guest speaker to join us. The speaker (3)…. this month's meeting will be taking about methods of positive thinking.

A. **attend**
B. attendant
C. attendin
D. attendance

Figure 4. Exam question that is C4 (Analysis) category

Number 1 on Package B was C4 (Analysis). In this level, it can be said that analysis was the ability to decompose a material into clearer components. This ability can be in the form of: (1) Analysis of elements / elements (analysis of material parts), (2) Analysis of relationships (identification of relationships), (3) Analysis of principles organizing (organizational identification). In item 1 of Package B, students are asked to break down information into several parts to find assumptions, and distinguish opinions and facts and find causal relationships to complete the blank passages in the reading.

16. Traffic was topped for more than four hours yesterday because of an (1) .... A car hit bus on state street at about 5.30 p.m three bus passengers were taken (2) .... the hospital. Police closed two blocks of state street until 9.45. and directed traffic to main street.

A. Accident
B. Disaster
C. Floods
D. wildfire

Figure 5. Exam question that is C2(Understanding) category

Number 16 on Package B was C2 (Understanding). In this level, students are expected to be able to understand certain materials that have been learned. Like the ability understanding the facts, concepts and principles. In this section, operational words that can be used in making problems include: estimating, explaining, associating, calculating, comparing, contrasting, concluding, summarizing and describing. In number 16 of package B, the expert asked students to understand the material in learning English specifically in understanding the conditions or events that occur in reading.

17.

A HELMET

A helmet is a form of protective gear worn on the head to protect it from injuries. In common life, helmets are used for recreational and sport (e.g. jockeys in horse racing, ice hockey), dangerous work activities (e.g. construction, mining, riot police); and transportation (e.g. motorcycles helmets and bicycle helmets). Most helmets are made from resin or plastic, which may be reinforced with fibers.

What is the main function of a helmet?

Figure 6. Exam question that is C1 (Remembering) category

Number 17 Package B was C1 (Remembering). In this level, emphasizes the ability to recall material that has been studied, such as knowledge of terms, special facts, conventions, tendencies and sequences, classification, categories, criteria and methodology. This level was the lowest level but was a prerequisite for the next level. In item 17 of package B, students only repeated or answer questions based on memorization only.

19. NOTICE

This is to inform you. That your subscription to Business News Monthly will expire in three monts, Don't miss it a single issue. Extend your subscription . today and pay out special low price of $ 55 for twelve issues.

That's $ 17 of the usual subscription price and $ 30 off the normal newsstand price. This offer is good for one month only, so don't delay ! Complete the enclosed form and send it today

How does subscribers to get lower price than usual?

Figure 8. Exam question that is C3(Application) category

Number 19 Package B was C3 (Application), Because in this level, application is defined as the ability to apply information obtained in real situations, where students were able to apply their understanding of both concepts and principles by using them in real life. In item 19 of package B, the expert asked students to apply the material or concept in providing an explanation of the text obtained or found in English.

20.

NOTICE

This is to inform you. That your subscription to Business News Monthly will expire in three monts, Don't miss it a single issue. Extend your subscription . today and pay out special low price of $ 55 for twelve issues.

That's $ 17 of the usual subscription price and $ 30 off the normal newsstand price. This offer is good for one month only, so don't delay ! Complete the enclosed form and send it today

What does a subscription to Business Nws Monthly normally cost ?

Figure 9. Exam question that is C5 (Evaluation) category

Number 20 Package B was C5 (Evaluation) in this level, evaluation is defined as the ability to assess the benefits of a matter for a particular purpose based on clear criteria. This activity deal with the value of an idea, creation, or method. At this level student is guided to gain new knowledge, better understanding, new applications and new ways that are unique in analysis and synthesis. According to Bloom there were at least 2 types of evaluation, namely: (1) Evaluation based on internal evidence, (2) Evaluation based on external evidence. At this stage, students evaluate information including making decisions and policies.

35. How to way Fit

Work Out at Gym		Walk or Run	Bicycle	Other
Age 21-30	25 %	30 %	35 %	10 %
Age 31-40	25%	35%	20 %	20 %
Age 41-50	20%	40%	15 %	25 %
Age 51 +	40%	35%	15 %	10 %

What information does this table tell us?

Figure 3. Exam question that is C6 (Creation) category

Number 35 Package B was C6 (Creating / Creation), At this level Creating is interpreted as combining elements into something whole and coherent and new, or

making something original. In item 35 of Package B, the expert asked students to give a conclusion based on the table in the text.

3. Expert Approval

This section explains English experts on HOTS assessments that are assessed by researchers.

a. Expert Profile

The questionnaire on the demographic of the respondent, for example, age, gender, qualification and work experience

Table 4.3 Demographic Profile of Expert (N=9)

Demographic		Frequency	Percentage %
Gender	Male	3	33.33
	Female	6	66.67
Qualification	Degree	0	0
	Master	9	100
	PhD	0	0
Teaching Experience	< 5 year	0	0
	>5 year	9	100
Expert	Grammar	2	22.22
	Writing	3	33.33
	Teaching Professional	3	33.33
	Evaluating	1	11.11

Based on table 4.3 above showed that the researcher used 9 experts who all have master's degrees in various fields such as grammar, writing, teaching and evaluating who on average have more than 5 years experience.

b. Validity of Experts on Package Items A

Table 4.4 Variable Map Approval Item School Package A Test (Expert Judgment)

Measr	+instru	-HOTS	-ahli	Scale
3				(5)
			C	
2			D	
		item28 item6		
		item25		
1		item16 item21 item22 item24 item9	B	
		item4		
		item1 item13 item23 item26 item8		4
		item11 item14 item15 item17 item20 item27	A H	
0	B	item31 item32 item7 item29 item40	E	
		item18 item34 item39	I	
		item2 item3 item30	F G	
		item10 item19 item33 item35 item5		3
-1				
		item12		
-2				
		item38		
		item36 item37		
-3				(2)
Measr	+instru	-HOTS	-ahli	Scale

Grouping Expert agreement about the identification of HOTS package A school exam questions is divided into three by using the average student logit score (0.0 logit) and its standard deviation (1.20). The items that were difficult to get experts (+ 0.5 logits) were 9 items (22.5%), enough items were expertly approved by 19 items (47.5%) and items that were easy to get experts were 12 items (30%).

Table 4.5 Validity Table of Fit Model ITEM Approval About HOTS

Identification School Examination Package A

Item	Measure (Logit)	Model S.E	Infit		Outfit		Correlation	
			MnSq	ZStd	MnSq	ZStd	Ptmea	PtExp
item6	1.7	0.48	1.4	0.9	1.14	0.5	0.29	0.42
item28	1.7	0.48	0.63	-0.8	0.43	-0.2	0.53	0.42
item25	1.48	0.45	0.63	-0.9	0.46	-0.3	0.53	0.47
item9	1.1	0.43	0.9	-0.1	0.71	-0.1	0.58	0.56
item24	1.1	0.43	0.72	-0.7	0.57	-0.3	0.58	0.56
item16	0.91	0.43	0.76	-0.5	0.6	-0.3	0.69	0.59
item21	0.91	0.43	1.08	0.3	0.95	0.1	0.56	0.59
item22	0.91	0.43	0.54	-1.3	0.44	-0.7	0.72	0.59
item4	0.73	0.43	0.87	-0.2	0.73	-0.2	0.71	0.63
item1	0.55	0.43	1.49	1.1	2.21	1.6	0.24	0.65
item8	0.55	0.43	1.05	0.2	1	0.2	0.78	0.65
item13	0.55	0.43	1.32	0.8	1.11	0.3	0.62	0.65
item23	0.55	0.43	0.68	-0.6	0.54	-0.6	0.71	0.65
item26	0.55	0.43	0.64	-0.8	0.53	-0.6	0.72	0.65
item14	0.36	0.45	0.21	-2.4	0.19	-1.8	0.91	0.68
item15	0.36	0.45	1.29	0.7	1.34	0.6	0.65	0.68
item17	0.36	0.45	0.72	-0.5	0.53	-0.6	0.74	0.68
item20	0.36	0.45	0.41	-1.4	0.32	-1.2	0.85	0.68
item27	0.36	0.45	0.92	0	0.76	-0.2	0.64	0.68
item40	0.36	0.45	1.28	0.7	1.34	0.6	0.66	0.68
item11	0.15	0.46	0.52	-0.9	0.48	-0.8	0.76	0.7
item29	0.15	0.46	0.91	0	0.82	0	0.74	0.7
item7	-0.06	0.47	1.05	0.2	0.98	0.1	0.77	0.71
item31	-0.06	0.47	0.47	-1	0.5	-0.7	0.78	0.71
item32	-0.06	0.47	1.35	0.7	1.69	1.1	0.62	0.71
item18	-0.29	0.49	0.63	-0.5	0.6	-0.5	0.82	0.71
item34	-0.29	0.49	0.14	-2.3	0.11	-2.2	0.92	0.71
item39	-0.29	0.49	0.68	-0.4	0.86	0	0.79	0.71
item2	-0.53	0.5	2.3	1.8	1.7	1.1	0.42	0.7
item3	-0.53	0.5	0.35	-1.3	0.41	-1	0.9	0.7
item30	-0.53	0.5	0.43	-1.1	0.45	-0.8	0.91	0.7
item5	-0.77	0.5	0.68	-0.4	0.59	-0.5	0.73	0.68

item10	-0.77	0.5	2.91	2.5	2.52	1.9	-0.07	0.68
item19	-0.77	0.5	1.95	1.5	1.67	1.1	0.52	0.68
item33	-0.77	0.5	0.79	-0.2	0.51	-0.7	0.51	0.68
item35	-0.77	0.5	0.85	-0.1	0.87	0	0.8	0.68
item12	-1.87	0.56	1.05	0.2	0.99	0.1	-0.33	0.55
item38	-2.2	0.59	1.14	0.4	1.17	0.5	-0.19	0.52
item36	-2.57	0.63	1.38	0.8	1.48	1	-0.25	0.51
item37	-2.57	0.63	1.27	0.6	1.33	0.8	-0.13	0.51

Based on the table above, it showed that the validity of the Rasch model refers to the criteria of fit (valid) values for each item. Based on the MNSQ criteria in table 4.6 according to Borg & Fox 0.7-1.3 is a good fit criterion which indicates that the criterion is valid or the level of guesswork on item questions is minimal. A range scale below 0.7 indicates that the item is easy to be approved by the experts and a range scale above +1.3 indicates that the item is difficult to accept or be approved by the expert and the level of invalidity of the item is very high.

Table 4.6 MNSQ Outfit Criteria Accepted

	MNSQ	Explain
Wright, B. D., & Linacre, J. M. (1994)	0.8 – 2.0	MCQ (High stakes)
	0.7 – 1.3	MCQ (run of mill)
	0.6 – 1.4	Rating Scale (Survey)
	0.5 – 1.7	Clinical observation
	0.4 – 1.2	**Judged (agreement encouraged)**
Borg & Fox (2015)	**0.7 – 1.3**	(model fit/good fit)
	< 0.7	(Misfit over fit)
	> +1.30	(Misfit underfit)

So for checking the validity of item approval, you could use the Outfit Z-Standard (Zstd) value. The Z-standardized value provided a t-test statistic that measured the probability of an MNSQ being applied by chance. Zstd is used to determine the value of t which shows the degree of freedom of the respondent has been harmonized for one normal value. According to Linacre (2011), if the MNSQ value has been accepted, the Zstd index may be ignored.

Another criterion for checking the validity of item approval was the Point Measure Correlation (PT-MEA CORR) value. This value was similar to the biserial point correlation on CTT. A positive point measure correlation value indicates the purpose of items moving in harmony (Bond & Fox 2001).

Table 4.7 Reliability Report of Package A

Facet	Reliability	Separation
Item Paket A	.78	1.90
Expert	.95	4.41

Linacre (2006) which states the reliability of respondents (Expert) ≥ 0.8 and the index of exclusion of respondents / experts (separation) of respondents ≥ 2.0.

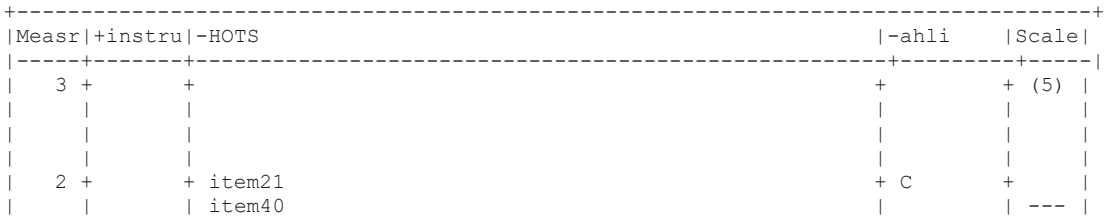
Table 4.8 Summary Statistic of Exam Test Package A

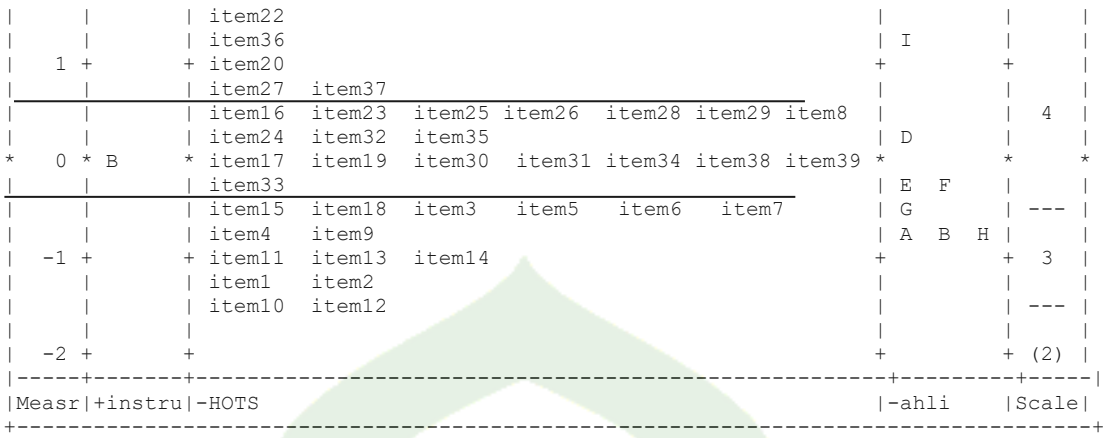
		Package A
Expert	Mean	0.53
	SD	0.97
Item	Mean	0.05
	SD	0.91

Based on table 4.8, it shows that the average expert rating is 0.53 which indicates that each expert has almost the same opinion on the school exam item, while for the item has an average of 0.05 in the level of selection.

c. Validity of Experts on Package Items B

Table 4.9 Variable Map Approval Item School Package B Test (Expert Judgment)





Grouping Expert agreement about the identification of HOTS package B school exam questions is divided into three by using the average student logit score (0.0 logit) and its standard deviation (1.20). The items that were difficult to get experts (+ 0.5 logits) were 7 items (17.5%), enough items were expertly approved by 18 items (45%) and items that were easy to get experts were 15 items (37.5%).

Table 4.10 Validity of Fit Model ITEM Approval of HOTS Identification School Examination Package B

Item	Measure (Logit)	Model S.E	Infit		Outfit		Correlation	
			MnSq	ZStd	MnSq	ZStd	Ptmea	PtExp
item21	1.89	0.45	1.02	0.1	0.7	0.1	0.4	0.38
item40	1.7	0.43	1.21	0.6	0.95	0.3	0.28	0.42
item22	1.52	0.41	0.42	-2	0.34	-0.5	0.66	0.46
item36	1.36	0.4	1.16	0.5	9	3.9	-0.17	0.5
item20	0.89	0.4	0.77	-0.4	0.68	-0.2	0.6	0.61
item27	0.73	0.41	0.96	0	0.9	0	0.7	0.64
item37	0.73	0.41	0.92	0	3.64	2.6	0.25	0.64
item16	0.56	0.42	0.32	-1.7	0.25	-1.4	0.87	0.66

item23	0.56	0.42	0.16	-2.6	0.15	-1.9	0.91	0.66
item25	0.56	0.42	0.61	-0.7	0.52	-0.6	0.81	0.66
item28	0.56	0.42	0.16	-2.6	0.15	-1.9	0.91	0.66
item8	0.38	0.43	2.42	2.1	2.27	1.6	0.14	0.68
item26	0.38	0.43	1.52	1	1.31	0.6	0.51	0.68
item29	0.38	0.43	0.11	-2.8	0.1	-2.2	0.95	0.68
item24	0.19	0.45	0.18	-2.1	0.14	-2	0.91	0.7
item32	0.19	0.45	0.35	-1.4	0.35	-1.1	0.9	0.7
item35	0.19	0.45	0.79	-0.2	0.81	-0.1	0.79	0.7
item17	-0.02	0.46	1.31	0.6	1.12	0.3	0.68	0.71
item19	-0.02	0.46	2.78	2.3	3.16	2.4	0.34	0.71
item30	-0.02	0.46	0.38	-1.2	0.37	-1.1	0.89	0.71
item31	-0.02	0.46	0.86	0	1.02	0.2	0.76	0.71
item34	-0.02	0.46	1.25	0.5	1.12	0.3	0.83	0.71
item38	-0.02	0.46	0.89	0	1.1	0.3	0.45	0.71
item39	-0.02	0.46	1.16	0.4	1.09	0.3	0.88	0.71
item33	-0.23	0.47	1.83	1.3	1.67	1	0.49	0.7
item3	-0.46	0.49	2.04	1.6	2.53	2	0.38	0.69
item5	-0.46	0.49	0.57	-0.7	0.47	-0.9	0.62	0.69
item6	-0.46	0.49	0.57	-0.7	0.47	-0.9	0.62	0.69
item7	-0.46	0.49	0.57	-0.7	0.47	-0.9	0.62	0.69
item15	-0.46	0.49	0.57	-0.7	0.47	-0.9	0.62	0.69

item18	-0.46	0.49	1.44	0.8	1.37	0.7	0.72	0.69
item4	-0.7	0.5	1.22	0.5	1.5	0.9	0.5	0.67
item9	-0.7	0.5	0.61	-0.7	0.61	-0.6	0.69	0.67
item11	-0.95	0.51	0.7	-0.5	0.73	-0.4	0.74	0.65
item13	-0.95	0.51	0.7	-0.5	0.73	-0.4	0.74	0.65
item14	-0.95	0.51	0.7	-0.5	0.73	-0.4	0.74	0.65
item1	-1.21	0.52	0.93	0	0.95	0	0.71	0.61
item2	-1.21	0.52	0.93	0	0.95	0	0.71	0.61
item10	-1.5	0.55	1.43	0.9	1.14	0.4	-0.36	0.58
item12	-1.5	0.55	0.69	-0.5	0.79	-0.3	0.34	0.58

Based on the table above, it showed that the validity of the Rasch model refers to the criteria of fit (valid) values for each item. Based on the MNSQ criteria in table 4.6 according to Borg & Fox 0.7-1.3 is a good fit criterion which indicates that the criterion is valid or the level of guesswork on item questions is minimal. A range scale below 0.7 indicates that the item is easy to be approved by the experts and a range scale above +1.3 indicates that the item is difficult to accept or be approved by the expert and the level of invalidity of the item is very high.

Table 4.14 Reliability Report of Package B

Facet	Reliability	Separation
Item Package B	0.7	1.47
Expert	0.95	4.29

Linacre (2006) which states the reliability of respondents (Expert) ≥ 0.8 and the index of exclusion of respondents / experts (separation) of respondents ≥ 1.5.

Table 4.15 Summary Statistic of Exam Test Package B

		Package B
Expert	Mean	0.53
	SD	0.97
Item	Mean	0.00
	SD	0.83

Based on table 4.8, it shows that the average expert rating is 0.53 which indicates that each expert has almost the same opinion on the school exam item, while for the item has an average of 0.00 in the level of selection.

B. Discussion

Teaching, learning and evaluating are complex tasks in the world of education; Therefore, it is very important for teachers to be able to distinguish the various components that are included in teaching evaluation. The ability to identify each component in the teaching evaluation item received broad attention from educational researchers, especially in the context of language education to assess and improve the language quality of educators and students later.

In this study, researchers developed an instrument to measure the Higher order thinking skill level on the SMK se Parepare school exams and it has been proven to be reliable and valid after being analyzed with various rasch facet (MFRM)

models. Thus, this can be used to compile or make teacher evaluation materials in evaluating students. In addition, evaluators and teachers must pay attention to important elements in the preparation of high-scale questions to create effective evaluation materials.

The assessment or experimental measurement of school exam items in this study was divided into three groups, namely easy to agree, moderate and difficult to agree, where two experts at the easy level agree, four experts at the moderate level and three experts at the difficult level agree. All samples had educational background, age and teaching experience of more than five years. The entire sample is dominated by women, but the three male teachers are almost evenly distributed across the three categories (good, moderate and bad). This shows that male and female teachers have the same potential for measuring and assessing higher order thinking skills on SMK school exams in Parepare.

The results of this study indicate that the level of LOTS and HOTS on the SMK school exams in Parepare Package A is relatively low, because only 12.5% of the items are HOTS, while in Package B is relatively high or 62.5% of the items are HOTS. This result is not surprising that the evaluators and the team that compiled the problem are beginners and the process of arranging the item is not yet complex with the teaching materials or grids used. Exploring the development of high-scale question items for prospective evaluators and teachers who need guidance and following a one-year training program is quite interesting because the quality of Indonesian teachers is in great demand. In addition, this assessment and analysis in a teacher training program or teacher professional development is useful for evaluating and designing further programs.

The MFRM analysis clearly illustrates the quality of the item items in the LOTS and HOTS components. Based on the MNSQ criteria in table 4.6 according to Borg & Fox (2005) a scale of 0.7-1.3 is a good fit criterion which indicates that the criterion is valid or the level of guesswork on the item is minimal, on a scale range below 0.7 indicates that the item is easy to approve by the experts and the range scale above +1.3 indicates that the item is difficult to accept or approved by the expert and the level of invalidity of the item is very high. The results showed that the majority of the items in package A showed a low level of LOTS, while package B had a high level of understanding of HOTS. These findings indicate that the understanding of teachers and evaluators about the knowledge of creating, compiling and applying learning evaluation questions greatly affects the cognitive level of students. This is in line with Zainal Arifin that evaluation is an important component that is sustainable in determining the quality and criteria of learning, especially students' cognitive understanding.

The most astonishing results in this study were that the majority of evaluators and teachers had not mastered higher order thinking based learning evaluation strategies to train students in critical and creative thinking. Even though they are the millennial generation who must change the perspective of students in order to create a more effective and information technology-based learning environment.

This suggests that most language teachers in terms of professional teacher development programs are still struggling to teach English at the secondary school level. This indicates an area for professional development in Indonesia. Most of the teachers in this study needed to be trained in designing and implementing effective learning strategies. They appear to be more subject to regulation and bureaucracy, so

they carry out classroom learning in accordance with teacher guidelines on implementing the latest curriculum. This is in line with the findings of Bjork (2005) that teachers in Indonesia are reluctant to increase their authority and independence (teaching creativity). This is likely due to their limited competence in terms of content knowledge and pedagogical knowledge. This assumption needs to be proven by further research, although several studies show that teacher competence in Indonesia is still low.

These results provide benefits for evaluators and language teachers and teacher educators. Prospective teachers get the insight that teaching and giving evaluation is not simple, but there is knowledge and understanding that must be possessed. Deeper content knowledge will guide them in establishing appropriate learning sequences and perspectives for high school students on the topic. In addition, teachers will be inspired to teach language concepts appropriately and effectively to high school students. Giving tests or evaluations based on higher order thinking is very useful as a basic strategy in helping students to improve comprehension and use of English comprehensively in the fields of speaking, listening, reading and writing.

This research is limited only to explore the item exam questions for vocational schools in Parepare. Thus, this research is expected to motivate HOTS research on various topics of evaluation and teaching at various levels of schools and other disciplines. Given the relatively low quality of Indonesian education, increasing HOTS-based questions to improve the quality of learning and teaching in the context of developing the knowledge of students and teacher professionals in evaluating is very important.

CHAPTER V
CONCLUSION AND SUGGESTION

A. Conclusion

The last on this research, the researcher would like to give a conclusion based on the result below:

Based on the results of the analysis and discussion that has been described shows that the item School Exam Test of Vocational High School at Parepare on the 2019 Package A and Package B in English subjects were in stages C1 to C6. Problems at C3 cognitive level dominate with a much greater percentage than other cognitive levels at 42.5%. while the percentage of the number of questions at cognitive level C1 is only 7.5%, C2 is 12.5%, C4 is 27.5%, C5 is 8.75% and C6 is 1.25%. based on the percentage, it can be concluded that the Problem Items on the School Exam Test of Vocational High School at Parepare on the 2019 Package A and B are not yet included in the questions on higher cognitive levels (HOTS) or are only in the LOTS stage. The presentation of the questions in packages A and B only emphasizes the recognition or reminder of the teaching material that has been given, so students are accustomed to having this level of knowledge (LOTS).

B. Suggestion

Based on the results of the research obtained, the researchers put forward the following suggestions

1. Package A and B school exam questions in 2019 as a learning evaluation material that have been obtained by students during school, it is necessary to add questions at the cognitive levels of C4, C5 and C6.

2. Further research is needed to analyze the cognitive level of the questions on the previous school exam package, school exam questions grid and all teaching materials that will be given to students.
3. The author or compiler of the school exam questions needs to pay attention that the writing of these items do not meet the writing standards in accordance with grammatical standards and graduate competency standards as a whole, so it is advisable to include the ability to think logically, critically, and innovatively according to the competency standards of graduates who wish to achieved.

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FAKULTAS/PRODI	:	TARBIYAH/ PENDIDIKAN BAHASA INGGRIS
JUDUL	:	ANALYSIS OF HIGHER ORDER THINKING SKILL ON SCHOOL EXAMS ENGLISH TEST OF VOCATIONAL HIGH SCHOOL AT PAREPARE (CRITICAL THINKING DISCOURSE APPROACH)

HOTS and LOTS Check List

According to Bloom's taxonomy, cognitive processes are divided into lower order thinking skill (LOTS) and higher order thinking skill (HOTS). Abilities that include LOTS are the ability to remember (C1), understand (C2), and apply (C3); where is HOTS includes the ability to analyze (C4), evaluate (C5) and create (C6). By using the instrument the researcher will check the question that include C1, C2, C3, C4, C5 and C6.

Soal 2017/2018

No	Question	C1	C2	C3	C4	C5	C6
1	Wiwik : …….. hit issue of children abuse ? Randi : I strongly recommended that the doers be penalized severally. a. How do you commenting b. What's your comment on c. Are you commenting d. What do you comment						
2	Waiters : Good morning, …..? Guest : I'd like to start with a glass of hot						

	coffee please. What is the right expression to complete the dialog above? a. How are you, sir? b. Are you ready to order, sir? c. Would you like to drink , sir? d. Have you made a reservation before, sir?						
3	Rudi : What do you think of last night's concert ? Anita : I thought it was very interesting Rudi : I enjoyed it too, but….. a. Based on me it was a bit boring b. It seemed enjoyable and fun c. In my view that was extraordinary d. It seemed better than previous						
4	Amran : What's your opinion of the plans for the new officer? Riska : ….. a. We don't have any opinion now b. I think they're new and great c. I feel that your opinion is right d. We'll have a planning meeting						
5	Receptionist : Good morning, May I help you ? Mr. Lungga : Yes, I have to check out at 06.30 tomorrow morning. May I have breakfast at six o.clock? Receptionist : Don't worry ….. a. Could you mention the exact time ? b. We can't prepare so early c. Our hotel has many waiters d. We will prepare it for you on time						

6	Arinda : Are you hangry? It's lunch time, isn't it? Lest go to canteen Yasmin : Sure, but can you wait for a moment ? a. I have breakfast free yesterday b. I am going to finish these documents first c. I will finished lunch now d. I can't finish my work if I am hungry						
7	Reski : Excuse me, can I help you, sir? Andi : Yes, can you show me where is the manager office? Reski :…. a. If you follow me, I would tell you the office b. If you follow me, I'll show you the way c. If you passed the hall, you would find it d. If you go there on foot, you will find it						
8	Andi : What a nice house you have here. Dian : Thank you. My father designed this Andi : Really? Wow! Your father is awesome! Dian : …… a. My father can also design your house b. It is the nicest house in town indeed c. Thanks. Yours is even nicer d. You're particularly welcome						
9	Ety : are you doing your homework tomorrow?						

	Nisa : No, I'm not. I did it two days ago Ety :…… a. Great. How nice it is b. How wonderful! c. Excellent. How quickly you did it! d. How clever you are						
10	Mr. Baso : Good morning. My name is Ali Dg Baso, the new manager Mrs. Munir : Good morning. I am Besse Munir. It's a pleasure to meet you, Mr. Baso Mr. Baso : …….. a. How do you do, Mrs. Munir? b. Nice to meet you, Mrs. Munir c. Let me introduce myself. I am Aliando Dg. Baso d. I'd like to meet Mrs. Munir						
11	Lena : ……? Andi : If I have much money I will buy a new car. a. What will you do if your family are rich? b. What will you do if you have extra money? c. What will you do if you won the match? d. What will you do if you get new job?						
12	Mia : Do you think that the national TV stations are political? Ali : Absolutely From this dialog we can conclude that a. Ali agrees with Mia b. Mia agrees with Ali c. Mia absolutely disagrees with Ali						

	d. Ali absolutely disagrees with Mia						
13	Marwan : Hmmm. It's almost 12 a.m now. Anwar : …….? Gilang : No, thanks. I dislike eating meat quite much. The suitable expression to complete the dialogue is ….. a. What would you like to have for lunch b. Would you like some steak for lunch c. Why don't we eat at the restaurant d. Could you bring something to eat						
14	Ima : Hi Doni! Great performance today Doni : Thanks, Ima. That was hard but I managed to do it anyway Ima : you can really sing high notes. Well done! Doni : ……. a. Of course, I am a professional singer. b. Please don't say that c. You also hit the low notes. d. You're much too kind. Thank you again						
15	Ara : What is your plan after graduating from vocational school? Ayu : ……. a. If I had a chance, I would go to work b. If I studied hard, my parents will permit me c. If I were you, I would continue my study d. If my parents have much money, I						

	will enter the college						
16	Mother : Where shall we go this holiday? Annisa : I'd like to go to New York, Mom but it's really expensive Mother : If we go there, …… How about going to Bali? Annisa : Okkey a. We could be able to visit many places b. We can't stay there more than 3 days c. We wont spend a lot of money d. We would stay at five star hotel left at down						
17	Santi : I'm afraid I have to complain, Luna. Some of the pages of my English book you returned to me yesterday were ripped Luna : …… I will buy a new one a. I'm sorry to hear that b. I don't know c. I'm afraid it's not my mistake d. That's not my problem						
18	Wanda : Excuse me, I bought this hand phone the other day and …… I'd like to refund. Here's my receipt. Seller : I see. What seems to be the problem ? a. Perhaps my hand is the problem b. I'm not satisfied with it c. The tool must be in good condition d. It costs more than I thought						
19	Rani : Excuse me. I don't think we have met before….						

	Inaya : Hello, I'm Inaya. I'm new staff for this car show room a. My name is Rani b. I am in the staff room c. I am fine, thank you d. Let me introduce myself						
20	Merry : I want to go to the art museum ….. John : you should take a right at the next corner, than a left. You will see the building over there. a. I like to see the painting exhibition b. Please show me the way to go there c. No, I don't know where it is d. I'm showing the way						
21	Stranger : Could you tell me how to get to Liman bus station ? You : ……. a. It's next to the Bank b. Go straight ahead and turn right c. It's around the corner from the traditional market d. Liman bus station is located across from general hospital						
22	Ani : I've just seen "Maipa Deapati & Datu' Museng", …… Andi : I agree with you. Two thumbs up for the director a. I think it's not that good b. What a great movie c. I have my own opinion d. I like the novel better						
23	Diandra : Have you ever imagined living abroad ?						

	Dayyan : That is one of my goal of my life Diandra : Which country do you want to live? Dayyan : …….. I will go to Engliand a. If I can speak English better b. If I could speak English c. If you would speak English d. If you want to speak English						
24	Mrs. Sandi : Mrs. Ryan, it is my son's birthday party on Saturday …. Mrs. Ryan : Of course, my son and I won't miss it. a. Would you like to go to with me? b. Would you like to taste the food first? c. Would you be interested in coming back? d. Are you interested to come back?						
25	Women : Would you like a cup of tea? Costumer : …… I love tea, It's good for a health a. No, Thanks b. I'm sorry c. I don't think so d. sure						
26	Traffic was topped for more than four hours yesterday because of an (1) .... A car hit bus on state street at about 5.30 p.m three bus passengers were taken (2).... the hospital. Police closed two blocks of state street until 9.45. and directed traffic to main street. a. on b. in c. into						

	d. beside						
27	Ira : Mom, do you mind if I help you cook ? Mother: Of course not, come and help me. From the conversation above we know that..... a. Mother doesn't like Ira to help her cook b. Ira asked her mother to help her cook c. Ira doesn't like cooking d. Mother accepted Ira's offer to help her cook						
28	ANNOUNCEMENT SMK Madania (1)... hold 'The Alumni Reunion 2016" on June 6th, 2018 at 8 a.m. at the park of SMK Madania. On This occasion, we would like to invite you to come and share your experience and your success stories. All Alumni are asked to renew our commitment for a better future. The registration fee is Rp 300.000 per person payable (2)... the venue. The charges includes an Alumni Jacket, Alumni ID, Alumni souvenir, and lunch. We look forward to seeing you soon. RSVP by April 10th, 2018 to smkmadania@gmail.com Contact person. Mr. Subhan (081242334343).						

	A. must. B. will C. should D. may						
29	**ANNOUNCEMENT** SMK Madania (1)... hold 'The Alumni Reunion 2016" on June 6th, 2018 at 8 a.m. at the park of SMK Madania. On This occasion, we would like to invite you to come and share your experience and your success stories. All Alumni are asked to renew our commitment for a better future. The registration fee is Rp 300.000 per person payable (2)... the venue. The charges includes an Alumni Jacket, Alumni ID, Alumni souvenir, and lunch. We look forward to seeing you soon. RSVP by April 10th, 2018 to smkmadania@gmail.com Contact person. Mr. Subhan (081242334343). a. on. b. in c. above d. at						
30	1. Buy a ticket before (1)... the gate 2. Leave all your belonging before entering the building 3. Eating, drinking and smoking are not (2)						

	... in the building 4. Do not turn on a radio or tape recorder inside the buiding 5. Touching the anticquities is prohibited 6. Do not take any picture of the anticquities a. opening b. entering c. returning d. D. closing						
31	1. Buy a ticket before (1)... the gate 2.Leave all your belonging before entering the building 3. Eating, drinking and smoking are not (2) ... in the building 4. Do not turn on a radio or tape recorder inside the buiding 5. Touching the anticquities is prohibited 6. Do not take any picture of the anticquities a. missed b. Showed c. Allowed d. choosed						
32	Dear Sir/Madam I am applying for the position of assistant store man as (1).... in the Sindo of January 2018. I have a (2)....experience in this kind of work over a number of years and I have completed training in computerized stock						

	control. I believe that my clerical accuracy, knowledge and experience in stock control, handling system, public control contact and plumbing material make me very suitable for the position. Copies of my resume and references are enclosed. I am available for interview at your convenience Yours faithfully Yusud Adiwinata a. advertised b. given c. looked for d. D. experienced						
33	Dear Sir/Madam I am applying for the position of assistant store man as (1).... in the Sindo of January 2018. I have a (2)....experience in this kind of work over a number of years and I have completed training in computerized stock control I believe that my clerical accuracy, knowledge and experience in stock control, handling system, public control contact and plumbing material make me very suitable for the position. Copies of my resume and references are enclosed. I am available for interview at your convenience. Yours faithfully Yusud Adiwinata						

	a. smart b. Wide c. Extremely d. D. Well known						
34	SPACE FLYING Dimension Air will get you there the quickest. We fly 8 times a week more often than any other airlines. Our new 767 aircrafts will (1).... you more comfortably and quietly to Jakarta, Yogja and Makassar/ Equipped with wider seats, you have more room and will arrive feeling fresh. Our stewardess and stewardesses will serve you gently and (2)....., making your flight even better Book Us now! For more information contact 0821877657 a. promote b. take c. dedicate d. D. distribute						
35	SPACE FLYING Dimension Air will get you there the quickest. We fly 8 times a week more often than any other airlines. Our new 767 aircrafts will (1).... you more comfortably and quietly to Jakarta, Yogja and Makassar/ Equipped with wider seats, you have more room and will arrive feeling fresh. Our stewardess and stewardesses will serve you gently and (2)..., making your flight even better Book Us now!						

	For more information contact 0821877657 a. safely b. Politely c. diligently d. cleverly						
36	Workers at the Jaya Wijaya Furniture Factory went on strike yesterday. All (1).... at the factory has stopped. Employees promise that they will not return to work until they (2)..... a new contract with the factory owners. The Jaya Wijaya has been strong (3)..... last February when three new factories opened. Unemployment is at an all-time low. Due to an increase in job availability, workers can now demand higher pay. a. negotiate b. negotiator c. negotiable d. D. negotiation						
37	**A Helmet** A helmet is a form of protective gear worn on the head to protect it from injuries. In common life, helmets are used for recreational and sport (e.g. jockeys in horse racing, ice hockey), dangerous work activities (e.g. construction, mining, riot police); and transportation (e.g. motorcycles helmets and bicycle helmets). Most helmets are made from resin or plastic, which may be reinforced with fibers. What is the main function of a helmet?						

38	**NOTICE** This is to inform you. That your subscription to Business News Monthly will expire in three monts, Don't miss it a single issue. Extend your subscription. today and pay out special low price of $ 55 for twelve issues. That's $ 17 of the usual subscription price and $ 30 off the normal newsstand price. This offer is good for one month only, so don't delay! Complete the enclosed form and send it today. What does a subscription to Business Nws Monthly normally cost?						
39	My Pet I have a pet. It's a dog and I call it Brownie. Brownie is a Chinese breed and I love it very much. Brownie is small, fluffy, and cute. It has got thick brown fur. When I cuddle it, the fur feels soft. Brownie does not like bones. Every day, it eats soft food like steamed rice, fish or bread. Every morning, I give her milk and bread. When I am at school, Brownie plays with my cat. They get along well, and never fight maybe because Brownie does not bark a lot. It treats the other animals in our home gently, and it never eats shoes. Brownie is really a sweet and friendly dog that I ever have. What is the genre of the text above?						

40	Please follow these procedures in order to make a machine withdrawal from your BNI Checking or saving accounts. 1. Insert your card face up into the card slot on the machine teller. 2. Enter your six digits identification number on the numbers buttons. 3. Press the withdrawal button for checking or button for savings. 4. Enter the amount of withdrawal, either in fifty or one hundred thousand rupiah, on the numbered buttons and wait for your receipt to be printed. 5. Remove your card from the slot. The drawer will open with receipt and your cash in fifty thousand rupiah nominal. All customers are limited to two withdrawals in one twenty-four hour period. What should you do after you enter the amount of desired withdrawal?						