



Anderson Taxonomy-Based Intensive Test Evaluation Tool for Senior High School

Nurul Khairani Abduh

nurulkhairani@iainpalopo.ac.id

Institut Agama Islam Negeri Palopo, Indonesia

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Abstract

Evaluation is one of the components covered in the education system and listening is one of the language skills that needs maximum attention. The purpose of this article is to describe the form of listening skills tests based on Anderson's taxonomy theory. The categories in Anderson's cognitive process dimensions are divided into six categories which are marked with the code C1-C6, namely remember (C1), understand (C2), apply (C3), analyze (C4), evaluate (C5), and create (C6) The results of the test instruments made were intended for class X high school students in the form of multiple choice tests in the amount of twenty questions. The scoring system used is an objective test scoring system.

Keywords: Evaluation, Listening, Anderson

Introduction

Evaluation aims to measure the extent to which educational goals are achieved at the same time can be used to make decisions in the implementation of learning. Nurgiyantoro (2016: 20) reveals that as part of an overall learning activity, evaluation or assessment is a process that involves many interrelated aspects. The implementation of a good assessment must be carried out well in a manner that involves various related components.

In this discussion we will discuss about listening ability test evaluation tools. Listening is a language skill that is first mastered by children before mastering the skills of speaking, reading and writing. In the implementation of language learning in schools, especially Indonesian, listening and listening tests seem to receive less attention as well as other language competencies. Although in reality, language is naturally verbal and manifested in speaking and understanding the conversation. This will be more evident in language communities that are not

familiar with the writing system. Even in modern language society (read: those who have a writing system) in everyday language life, verbal speaking activities will be more than written language. That fact can be interpreted that oral language competence is more functional in daily life than written language skills. In fact, Adler (in Hermawan, 2012: 30) notes that 53% of communication activities are dominated by listening, while writing 14%, speaking 16%, and reading 17%. Furthermore, according to Laderman (in Hermawan, 2012), adults spend about 42% of their time doing listening activities, while children are around 58%. Thus, it is undeniable that quantitative listening takes the largest portion of communication activities, even though qualitatively it is generally still relatively ineffective.

Students are required to have sufficient listening skills to obtain good learning outcomes. However, in the Indonesian language examinations at the end of the semester as well as the National Examination, evaluation of this listening ability is still neglected. Therefore, oral language competency tests, in this connection are listening skills, need to be given adequate attention so that the making of this article aims to describe the form of listening skills tests based on Anderson's theory.

Listening as Language Skills

Definitively, many experts provide boundaries and understandings regarding these language skills. Russell & Russell, 1959; Anderson, 1972: 69 (in Tarigan, 2008: 30) explains that listening means listening with full understanding and attention and appreciation. Furthermore, Tarigan (2008: 31) itself provides a definition of listening as a process of listening to oral symbols with attention, understanding, appreciation, and interpretation to obtain information, capture content or messages, and understand the meaning of communication that has been conveyed by the speaker through speech or spoken language.

In line with the previous opinion, Shihabuddin (in Triadi, 2017) argues that listening is a process of listening to oral symbols with attention, understanding, appreciation, and interpretation to obtain information, concurrent content and understand the meaning of communication conveyed by the speaker through speech or spoken language. Listening is a language skill that is first mastered by children before mastering the skills of speaking, reading, and writing. The goals of listening learning in schools include training students' concentration skills, practicing students' comprehension skills, and training students' creative power (Abidin, 2012: 95).

Based on the definition stated by the experts, it can be concluded that listening is an activity of receiving information in the form of sound symbols that are meaningful through the sense of hearing carried out with attention, understanding, appreciation, and interpretation to obtain complete information and understand the meaning of the information conveyed.

Bron (in Iskandarwassid, 2016) says that there are eight processes of listening activities, namely: (1) Listeners obtain raw speech and save the image from it in short term memory. This image contains phrases, punctuation clauses, intonations, and word stress patterns from a series of conversations he hears; (2) The listener determines the time in each event the conversation is being processed; (3) The listener seeks the purpose and objectives of the speaker by considering the form and type of conversation, context and content; (4) Background information listeners (through the scheme they have) are in accordance with the context of the existing subject

matter; (5) The listener seeks the literal meaning of the message he hears. This involves semantic interpretation activities; (6) The listener determines the intended meaning; (7) The listener considers whether the information he receives must be stored in his memory or postponed,

The listener removes the form of messages he has received. Basically 99% of words and phrases, and sentences will disappear and be forgotten.

According to Djiwandono (2008), the main target of listening ability tests is the ability of test participants to understand the contents of the discourse that is communicated verbally directly by the speaker, or simply audio or video recording. Understanding can refer to general understanding such as topics discussed or just outline the contents, or more detailed sections including actors, location, time, and some prominent aspects. Understanding through listening can also be related to things that are more in-depth in nature, which are not limited to things that are expressly and directly revealed. Such understanding can only be obtained by relating certain parts of the discourse or drawing conclusions and implications based on understanding the parts of the discourse. All of that is a description of what a person should understand when listening to a discourse that is communicated orally to be heard.

The preparation and preparation of listening competency tests according to Nurgiyantoro (2016) is indeed not as easy and simple as other competency tests. Strictly speaking, listening competence tests require special preparation and facilities. Based on various considerations, including practicality considerations, listening competency tests for SLA level students below do not need to be carried out in summative tests, but only in process tests or formative tests. That would be different from the problem with students majoring in language who specifically take courses in oral comprehension.

Listening Evaluation

Levelt (in Puspitasari, 2014: 20) describes that listening evaluation not only measures perceptual abilities and linguistic skills, but also measures problem-solving abilities, making inferences, and other skills that are not found in linguistics. Even the testing of listening skills also involves factors: the extent to which listeners can understand the main idea and reiterate its details, how it can make inferences, detect whether the sentence originates from the beginning, middle, or end of speech, etc. Therefore, Saddono and Slamet (in Puspitari, 2014: 8) also suggest that there are six factors that must be considered to be able to listen effectively, namely conditions, concentration, purpose, interest, linguistic ability, and knowledgeable and extensive experience.

Djuanda (t.t) explained further about evaluating this listening competency test that according to its name, namely the assessment of listening ability, the test material tested was delivered verbally and received by the students through the means of hearing. The problem that immediately arises is what means should be used and how to deliver effective assessments should we use recording media or read aloud by the teacher when the test takes place. Djiwandono (2011: 114) explains that the expected understanding in listening evaluation can refer to general understanding such as topics discussed or just outline the contents, or more detailed sections, such as actors, locations, times, and some prominent aspects. In addition,

understanding can also be done in more depth that is not limited to expressions that are expressly expressed, which is more directed at the activities of connecting certain parts of the discourse or drawing conclusions and implications based on an understanding of the parts of the discourse. In addition, it is also important to note the level of ability of the test participants Test items whose answers require just an understanding of things that are directly and concretely in a discourse are suitable for beginner level students. As for the high level, the questions given are less direct, such as the link between various parts of the discourse, finding implications and drawing conclusions, determining attitudes, and evaluating the contents of the discourse.

To measure listening competence, what is actually done to students or someone is just measuring the results of the recitation, not measuring the ability to listen. This is due to the fact that listening competence is an internal activity that occurs in a person's brain which can only be measured using special tools. Following is the explanation of Brown (2004: 11) who stated about this:

“You are not observing the listening performance; you are observing the result of the listening. You can no more observe listening (or reading) than you can see the wind blowing. The process of the listening performance itself is the invisible, inaudible process of internalizing meaning from the auditory signals being transmitted to the ear and brain.”

Once again emphasized here for listening competency tests is the ability to capture and understand or at the same time respond to information conveyed by other parties through sound means. So, the point is the ability to understand the contents of the message, namely whether it simply requires students to choose answers that have been provided or respond with their own language.

Sumadi (in Fawzi, 2017) suggests that listening assessment techniques and procedures can be done by (1) playing oral texts to students and students assigned to listen to them, (2) telling students to pour back the contents of oral texts that they have just orally heard in the form of speaking or in written form in the form of writing, (3) correcting and evaluating speeches or essays of students. The truth of the information disclosed by students, for example completeness, coherence, coherence, etc. is an illustration of the students' extensive listening skills.

So, in the preparation of an objective test evaluation tool in this intensive listening test participants will be required to listen carefully to the discourse that is played and then choose or respond to the questions raised in relation to the message contained in the discourse. For more details, the following is the sequence of steps that must be taken before the evaluation is conducted. These steps are based on what was stated by Djwandono (in Wulandari, 2016): (1) Preparation of the test grid; (2) Formulation of instructions for carrying out tests; (3) Preparation of the answer key, for objective questions (multiple choices), given a score of 1 if true and 0 if wrong; (4) Determination of test validation methods; (5) Gathering feedback to improve the test concept that has been arranged through content validation in the form of input from material experts; (6) Revision of the concept of tests based on feedback; (7) Preparation of all test kits consisting of: (a) test items that are equipped with workmanship instructions and proportional time, (b) answer sheets, and (c) answer keys and scoring signs.

The making of an intensive listening test evaluation tool is carried out only until the

fourth stage, namely the determination of the test validation method.

Nurgiyantoro (2016: 379) states that listening competence here is defined as the ability to capture, understand, and respond to oral language messages. Therefore, linguistic materials that are appropriate are in the form of discourse, because a discourse must contain information. Oral competency tests are intended to measure the ability of students to capture, understand, and respond to information contained in the discourse that is received through the auditory canal. The choice of discourse as material for listening ability tests must also consider the existence of several factors. In general, the factors in question are not different from the factors that need to be considered in the selection of test material structure and vocabulary. However, for the listening competency test, the selection of test material is more emphasized on the scope of the message, the type of discourse, and the level of difficulty of the discourse.

a. *Level of Discourse Difficulties*

The level of discourse difficulties is mainly viewed from the vocabulary and structure factors used. If the vocabulary used is difficult, multiple and abstract meaning, rarely used, coupled with complex sentence structure, the discourse includes discourse with a high degree of difficulty. In addition, the information contained can also affect the level of discourse difficulties.

b. *Content and Discourse Coverage*

The discourse that will be tested should contain things that are neutral so it is possible to have the same view on the contents of the problem. For example, things related to the environment, nature, sports, arts, technology, transportation, and others. Instead, you should avoid discourses that contain views or beliefs of certain groups, something that is controversial, or something similar, such as politics and religion for public schools.

c. *Type of Discourse*

The discourse taken for listening ability tests can be in the form of dialogue or not dialogue. However, for practical considerations, we need to limit the length of the discourse being tested. The important thing is in terms of the validity of the test that is fulfilled. That is, the test is truly capable of revealing the competence of capturing and understanding spoken language.

Anderson's Taxonomy in Listening

Mayer (in Anderson, 2010: 98) argues that the focus of learning is meaningful according to the view that learning is constructing knowledge, in which students try to understand their experiences. In constructive learning, students carry out active cognitive processes, namely noticing relevant information that comes, arranging this information in the brain into a coherent picture, and integrating that information with the knowledge stored in the brain.

Constructive learning (ie meaningful learning) is seen as an important educational goal. Constructive learning requires learning that does not merely convey factual knowledge and also prioritizes assessment questions that require students not just to remember or recognize factual knowledge (Brandford, Brown, and Cocking, 1999; Lambert and McCombs, 1998; Marshall, 1996; Steffe and Gale, 1995). The cognitive processes discussed are a tool for describing the cognitive activities of students in constructive learning; cognitive processes are ways that

students actively use in the process of constructing meaning.

Hermawan (2012: 33) explains that listening does not work automatically, but is a process that includes selective attention and meaning. Physiologically, listening includes the use of auditory organs to receive acoustic vibrations that are transformed into signals that can be understood by the brain. Next, the brain gives meaning to these vibrations and encodes these vibrational patterns known as words. Thus, it can be said that listening is a process that is not selective, while listening is a selective process when each stimulus is filtered.

Based on the description, it can be understood that listening activities are critical thinking activities. Iskandarwassid (2016: 235) also explains that some experts define listening and listening as a language process that is interpreted in the mind.

Based on the description, it can be understood that listening activities are activities that involve the hearing organ physiologically which is then transferred to the brain to be processed for received messages in order to get the meaning of the information received in the mind. Simply put, listening is the ability to understand the information contained in the recipe material. The activity of understanding information in the mind is a cognitive activity carried out by someone who, if linked in Anderson's taxonomy, can be done or made in stages.

Anderson's taxonomy

Anderson's taxonomy emerged as a revised form of the previous theory, Bloom's taxonomy. The concept of Bloom's taxonomy was developed in 1956 by Benjamin Bloom, an education psychologist. This concept classifies educational goals in three domains, namely cognitive, affective, and psychomotor (Statistics, 2015).

Taxonomy is the classification or grouping of objects according to certain characteristics. Taxonomy in the field of education, used for the classification of instructional objectives; there are those who call it learning goals, performance goals, or learning goals, which are classified into three general classifications or domains, namely: (1) cognitive domain, related to learning objectives oriented to thinking ability; (2) the affective domain relates to feelings, emotions, value systems, and heart attitudes); and (3) psychomotor domains: oriented to motor skills or skeletal muscle use (Gunawan, 2016).

For teachers and education practitioners, the word "Cognitive Level" or often abbreviated as "C" (from the word Cognitive) is a term that is very familiar in formulating learning goals. The term cognitive is taken from the book "The Taxonomy of Educational Objectives, The Classification of Educational Goals, Handbook I: Cognitive Domain" known as the learning taxonomy proposed by Bloom, Engelhart, Furst, Hill and Krathwohl (Widodo, 2006). For almost half a century the book has become a reference in various countries, including Indonesia. There are many benefits from Bloom's taxonomy of learning, many of the ideas used refer to the Bloom's taxonomy of learning, on new developments and findings in the world of education. One of the results of this development is the revised edition of the book entitled "A Taxonomy for Learning and Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives" by Anderson and Krathwohl (Widodo in Gunawan, 2016).

Widodo (in Gunawan, 2016) tried to put forward the principle of changing Bloom's taxonomy into Anderson's taxonomy, according to Widodo, the change from noun to verb was one of the most significant changes (Widodo, 2006). According to Anderson and Krathwohl (in

Widodo, 2006) taxonomy needs to reflect various forms or ways of thinking in an active process, therefore verbs are more appropriate than nouns. For example (according to Bloom) is the result of thinking not a way of thinking so that it is corrected to remember which shows the initial thought process.

Anderson's Cognitive Realm

Nurgiyantoro (2016: 62) explains that in teaching and learning activities in the classroom, especially for theoretical subjects, cognitive aspects usually receive the most attention. This can be seen in the formulation of basic competencies and indicators, selection of teaching materials, implementation of learning, and assessment carried out. Indonesian Language and Literature subjects, although emphasizing the ability of students to directly be able to speak and compose literature, are essentially still loaded with cognitive displays. The practice of productive active language speaking and writing is also marketed by the ability to think, both thinking of choosing the right language or something that will be spoken.

Based on this description, just active productive language practice activities still involve cognitive abilities in their implementation. Of course, receptive active activity, namely listening specifically, involves more cognitive processes in it.

The cognitive domain is related to the intellectual ability and competence of one's thinking. This domain brings students into the thought process such as knowing, understanding, analyzing, connecting, conceptualizing, solving problems, and so on. The cognitive domain consists of six levels of thinking that are arranged from a simpler level to a more complex one, from a level of thinking that only applies simple intellectual activities to those requiring high-level intellectual work. The six levels in question are knowledge (knowledge, C1), understanding (comprehension, C2), application (application, C3), analysis (analysis, C4), synthesis (synthesis, C5), and evaluation (evaluation, C6). The level of memory until application is referred to as a simple level of thinking, while the level of analysis to evaluation is a high level of thinking (Nurgiyantoro, 2016: 62).

Anderson & Krathwohl (2001) and Krathwohl (2002) revised Bloom's taxonomy structure by changing the terms of the levels involving the substance of thought processes, simplification, selection of subcategories and alternative terms, as well as shifting positions (sequences) of thinking levels. However, the order of categories is still the same. Bloom's taxonomic changes in naming (terms) are changes from nouns to verbs. This change seems to be related to the learning objectives which are usually formulated with verbs (operational verbs in indicators), while the nouns are achievements. (Nurgiyantoro, 2016: 77).

The categories in the dimensions of cognitive processes that are used as references in making questions in this discussion are based on Anderson's taxonomy which has provided improvements to the previous theory proposed by Bloom, better known as Bloom's taxonomy. The following table of cognitive categories based on the taxonomies of Bloom and Anderson was made to show the differences between the two.

Table 1. Cognitive Categories Based on Bloom and Anderson's Taxonomy

Bloom's Taxonomy Source: Arikunto (2009, p. 121)	Anderson's Taksonomy Source: Anderson (2010, pp. 100-102)
Memory	Remember
Understanding	Understand
Application	Apply
Analysis	Analyze
Synthesis	Evaluate
Evaluation	Create

Taxonomy needs to reflect various forms or ways of thinking in an active process. Therefore, verbs are more suitable than nouns. Therefore, making a question here is done by referring to the theory of Anderson's taxonomy.

Application of Anderson's Taxonomy in the Intensive Listening Test

The test instrument that will be made is aimed at class X high school students in the form of questions in the form of multiple choice tests totaling 20 questions with an assessment system using an objective test assessment system. The objective test answers are definite and dichotomous, there is only one possible correct answer (Nurgiyantoro, in Mustikasari, 2014). If the student's answer is not in accordance with the answer key, the answer is considered wrong and has no weight. The Anderson taxonomic-based news intensive listening ability test instrument grid is as follows:

Table 2. Grid of Instruments Intensive Listening Ability Test Instrument Anderson Taxonomy Based News

Material	Indicator		Question num.	Numb. Of question
	Cognitive level	Description		
Video recording news	Remembering (C1)	Students can mention the	5	2
		"what" element in the news	6	
		Students can mention the	2	1
		element "who" in the news		
		Students can mention the	4	2
	"when" element in the news	3		
		Students can mention "where" elements in the news	7	1
	Understand (C2)	Students can answer questions according to the news	8	1
		Students can answer questions that are not in line with the news	9	1
		Students can mention the facts contained in the news	12	1

	Students can mention opinions in the news	10	1
Apply (C3)	Students can mention the equivalent words contained in the news	11	1
	Students can change the sentence directly into indirect	19	1
Analyze (C4)	Students can find the main topics of the news	1	1
	Students can find news items	13	1
	Students can mention the "why" element in the news	14	1
	Students can mention the "how" element in the news	15 20	2
Evaluate (C5)	Students can draw conclusions about the news	16	1
	Students can provide responses to news content	17	1
Create (C6)	Students can formulate the contents of the news briefly	18	1

Conclusion

Evaluation in listening learning should be made not only to measure perceptual abilities and linguistic skills alone, but also to measure problem-solving abilities, inference making, and other skills not contained in linguistics. Tests that can be done in listening activities can use traditional types of tests as well as authentic types of tests. In this article, the types of traditional tests are prepared in the form of multiple choice objective tests. The test participants will be required to listen carefully to the discourse that is played and then choose or respond to the questions raised in relation to the message contained in the discourse.

The making of Anderson's taxonomy-based listening test evaluation tool was based on Bloom's taxonomic theory revised by Anderson and Krathwohl. These changes occur to fit the present Educational goals which are marked by changes in the operational word in the form of a noun in Bloom's taxonomy to be a verb in Anderson's taxonomy. These operational verbs are then used as guidelines in making listening questions in Language learning in class X high school.

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