

THE TEST ITEM ANALYSIS AS COGNITIVE-APPRAISAL PERFORMANCE TOWARDS X IPS 1 AT SMA PGRI 2 KAJEN

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Abstrak

Dalam proses belajar-mengajar, salah satu dari banyak cara untuk mengukur kemampuan penguasaan siswa adalah dengan melakukan sebuah tes. Institusi-institusi pendidikan di Indonesia biasanya mengadakan tes tengah semester satu kali di tiap semester. Sebagai cara untuk mengukur kemampuan siswa dalam menguasai materi yang telah diajarkan, sangatlah penting untuk menyusun butir soal yang baik yang mana terdapat tiga lingkup penguasaan (struktur teks, fungsi sosial, dan kaidah-kaidah kebahasaan). Riset ini bertujuan untuk mendeskripsikan hasil dari analisis butir soal sebagai pernyataan kompetensi dasar, dan menemukan capaian kognitif siswa dalam tes bahasa Inggris di kelas X IPS 1 yang mana menggunakan metode deskriptif-kualitatif. Peneliti mengambil soal PTS bahasa Inggris untuk kelas sepuluh dan lembar jawab para siswa dari kelas X IPS 1 di SMA PGRI 2 Kajen sebagai data penelitian. Data tersebut telah diproses melalui observasi, pengecekan berulang, dan dianalisis menggunakan instrumen-instrumen validitas.

Hasil dari penelitian ini menunjukkan: (1) Analisis butir soal pada tes tengah semester bahasa Inggris sebagai pernyataan kompetensi dasar adalah valid. Semua butir-butir soal cocok dengan indikator/kompetensi-kompetensi dasar dan level kognitif. (2) Di indikator 3.1 yang terwakili oleh pertanyaan no 11-15, pertanyaan-pertanyaan tersebut terlalu simpel untuk level siswa SMA. (3) Setelah mengobservasi lembar-lembar jawab siswa, tidak ada aspek struktur teks dalam soal-soal tersebut yang merepresentasikan indikator 3.1 dan mayoritas siswa kurang menguasai aspek kaidah-kaidah kebahasaan. (5) Pada indikator 3.2, mayoritas siswa kurang menguasai aspek struktur teks dan kaidah-kaidah kebahasaan.

Kata kunci: Analisis butir soal, Tes tengah semester bahasa Inggris, Capaian kognitif.

Abstract

In teaching-learning process, one of many ways to measure students' mastering ability is by doing a test. Educational institutions in Indonesia usually hold a mid-term test once in each semester. As a way to measure students' ability in mastering the materials, it is necessary to construct a good item test which include three scope of mastery (generic structure, social function and linguistic features). This research was aimed to describe the result of test item analysis as basic competence statement and to discover X IPS 1 students' cognitive achievement on English test using descriptive qualitative method. The researcher took an English mid-term test for the tenth graders and the answer sheets from class of X IPS 1 at SMA PGRI 2 Kajen as the data. The data were processed by observation, double-checking and analyzed using the validity instruments.

The results of this study showed : (1) The item test analysis of English mid-term test as basic competence statement are valid. All of the item tests are match with the indicator/basic competencies and the cognitive level. (2) In indicator 3.1 which represented in questions number 11 -15, the questions are too simple for senior high school students. (3) After observing the students' answer sheets, there are no generic structure aspect in the questions which represented for indicator 3.1 and most of the students are lack in mastering the linguistic features aspect. (4) For indicator 3.2, most of the students are lack in mastering both generic structure and linguistic features aspects.

Keywords: Test item analysis, English Mid-term test, Cognitive-appraisal performance

Introduction

During the pandemic, Indonesian ministry of education has decided the students will learn every subject of learning including English by online class based on

the current curriculum, curriculum darurat. In Senior High School field, there are some differences, the ministry of education decided to cut out some of the basic competences. In the 10th grade for example, in curriculum 2013, there are 9 basic competences but the ministry of education cut out some and left 6 basic competences to be taught by the teachers. The transition from the normal days to the pandemic era made every field struggle, including the educational field. Many schools tried really hard to provide the rights of the students, to learn. Internet, Smartphone, Tablet, Laptop became the most important things to have in order to access the online class. Many online applications used such as Skype, Zoom, Google Meet, Google Classroom, etc.

In teaching-learning process, teachers are required to make sure the students mastered the materials. One of the ways to know students' ability in mastering any materials, the teachers can use a test. A test is a method of measuring a person's ability, knowledge, or performance in a given domain (Brown, 2003: 3). At September, SMA PGRI 2 Kajen held the mid-term test. The students or the parents came to the school at 8 am - 12 pm to took the bundle of question sheets and the answer sheets. They must return the bundle after one week. The school did not hold the middle exam by online application because of the transition between the normal days and the pandemic.

Based on the condition above, the researcher were inspired to analyze the English mid-term test for the tenth graders and to discover students' cognitive achievement of class X IPS 1. Test item analysis itself is a process which examines student responses to individual test items (questions) in order to assess the quality of those items and of the test as a whole. (ScorePak® Office of Educational Assessment from University of Washington, 2021). Meanwhile, cognitive appraisal is defined as an individual evaluation of a situation and "can be most readily understood as the process of categorizing an encounter, and its various facets, with respect to its significance for well-being" (Lazarus & Folkman, 1984: 31).

The researcher wants to know does the test fulfill the criteria or not and can be categorized as good item tests. Also does the results of students' cognitive achievements in mastering three aspects (generic structure, social function, and linguistic features) are all good or adequate or deficient.

Methodology

The study conducted with qualitative approach and used descriptive - qualitative method. Strauss (2003: 4-5) states that qualitative research is a research with the findings which do not obtain by statistical procedure or other calculation in order to reveal and understanding a certain thing in the unknown phenomena. The researcher used qualitative to show the results of the item test also the result of observing students' achievement, which scope of mastery aspect got the good, adequate and deficient results. The researcher took an English mid-term test sheet for the tenth graders and the students' answer sheet from class of X IPS 1 during her internship at SMA PGRI 2 Kajen. Arikunto (2006:134) states that there are five methods in data collection; interview, observation, test, questionnaire, and documentation. In collecting the data, the researcher used observation. This research conducted by the researcher at home. At first, the researcher made the validity instruments for analyzing the item test and for observing students' answer sheets. After that, the researcher analyzed the item test and observed the students' answer sheets by checking and describing the results.

Finding & Discussions

Finding

The test consists of two basic competencies, the first one is 3.1 Applying the social function, the structure of the text, and the linguistic elements of spoken and written transactional interaction texts which involved the act of giving and asking informations related to self identity and family relationships, according to the use of the contexts. (3.1 menerapkan fungsi sosial, struktur teks, dan unsur kebahasaan teks interaksi transaksional lisan dan tulis yang melibatkan tindakan memberi dan meminta informasi terkait jati diri dan hubungan keluarga, sesuai dengan konteks penggunaannya. (Perhatikan unsur kebahasaan pronoun: subjective, objective, possessive))

The second one is 3.2 Applying the social function, the structure of the text, and the linguistic elements of spoken and written transactional interaction texts which involves the act of extended congratulating and complimenting expressions. (3.2 menerapkan fungsi sosial, struktur teks, dan unsur kebahasaan teks interaksi interpersonal lisan dan tulis yang melibatkan tindakan memberikan ucapan selamat dan memuji bersayap (extended), serta menanggapi, sesuai dengan konteks.)

From the table below, indicator 3.1 is represented by questions number 11, 12, 13, 14 and 15. After analyzing these numbers, the researcher found these questions are valid and match with the indicator. On the other hand, the questions are not contain generic structure aspect to measure the students' ability on answer the questions with the right expressions or responses. Also, the questions are too easy for the cognitive level C3. Meanwhile, indicator 3.2 is represented by questions number 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10. After analyzing these numbers, the researcher found these questions are valid and match with the indicator and the cognitive level. However, the questions still doesn't have HOTS points.

Table 1. Test Item Analysis Results

Number	Indicator	Cognitive Level	Item Test & Answer	Valid	Invalid	Recommendation / Note
1.	3.1	C3	11. How old is Mercy Sivhaga? Answer : Sixteen years old	V		1. Question number 11 is a simple literal question which the answer can be found easily in the text. Based on the researcher's opinion, this kind of question is way too simple for cognitive level C3. However, the question itself already fulfill the purpose of the indicator, 'teks transaksional tulis yang melibatkan tindakan memberi dan meminta informasi terkait jati diri'
	3.1		12. What is her nick name? Answer : Mercy	V		

Number	Indicator	Cognitive Level	Item Test & Answer	Valid	Invalid	Recommendation / Note
	3.1		13. What is her hobby? Answer : Dancing	V		2. Question number 12 is a simple literal question which the answer can be found easily in the text. Based on the researcher's opinion, this kind of question is way too simple for cognitive level C3. However, the question itself already fulfill the purpose of the indicator, 'teks transaksional tulis yang melibatkan tindakan memberi dan meminta informasi terkait jati diri'
	3.1		14. How tall is she? Answer : 165 cm	V		3. Question number 13 is a simple literal question which the answer can be found easily in the text. Based on the researcher's opinion, this kind of question is way too simple for cognitive level C3. However, the question itself already fulfill the purpose of the indicator, 'teks transaksional tulis yang melibatkan tindakan memberi dan meminta informasi terkait jati diri'
	3.1		15. What is Mercy's favourite beverage? Answer : Avocado juice	V		4. Question number 14 is a simple literal question which the answer can be found easily in the text. Based on the researcher's opinion, this kind of question is way too simple for cognitive level C3. However, the question itself already fulfill the purpose of the indicator, 'teks transaksional tulis yang melibatkan

Number	Indicator	Cognitive Level	Item Test & Answer	Valid	Invalid	Recommendation / Note
						<p>tindakan memberi dan meminta informasi terkait jati diri”</p> <p>5. Question number 15 is a simple literal question which the answer can be found easily in the text. Based on the researcher's opinion, this kind of question is way too simple for cognitive level C3. However, the question itself already fulfill the purpose of the indicator, ‘teks transaksional tulis yang melibatkan tindakan memberi dan meminta informasi terkait jati diri”</p>
2.	3.2 3.2	C3	<p>1. What the next conversation after Daniel said his team on succeeded?</p> <p>Answer : Congratulation on your success, Daniel</p> <p>2. What Yola said after get a compliment from Farhan?</p> <p>Answer : Thankyou very much, Farhan. It’s very kind of you to say so / Thankyou very much for your compliment.</p> <p>3. The next</p>	V V V		<p>3. Linguistic features (Grammatical error) Better to use the order as follows ; “What shall Rahel say after Daniel said his team succeeded?”</p> <p>4. Linguistic features (Grammatical error) Better to use the order as follows ; “What shall Yola say after get a compliment from Farhan?”</p> <p>5. Linguistic features (Grammatical error)</p>

Number	Indicator	Cognitive Level	Item Test & Answer	Valid	Invalid	Recommendation / Note
	3.2		<p>continue after 'B' know that 'A' tell about took a promotion from boss? Answer : That's great, congratulations!</p>	V		<p>Better to use the order as follows ; "What is the next conversation after 'A' told about the job promotion?"</p>
	3.2		<p>4. What fatimah said after Melkah greeting her? Answer : Oh my god, i love your hairstyle / You look so cute / beautiful with that new hairstyle.</p>	V		<p>6. Linguistic features (Grammatical error) Better to use the order as follows ; "What shall Fatimah answer after Melkah greet her?"</p>
	3.2		<p>5. If you want compliment someone on their apperance. What would you say? Answer : You look (great / beautiful / handsome, etc) in that (things they wear) Or You look (great / beautiful / handsome, etc) wearing / using the (things).</p> <p>6. If you want compliment someone because</p>	V		<p>7. Linguistic features (Grammatical error) Better to use the order as follows ; "If you want to give someone a compliment on their appearance, what would you say ?"</p> <p>8. Linguistic features (Grammatical error) Better to use the order as follows ; "If you want to compliment</p>

Number	Indicator	Cognitive Level	Item Test & Answer	Valid	Invalid	Recommendation / Note
	3.2		<p>he won singing contest. What would you say?</p> <p>Answer : That was wonderful / wow, you are so talented / congratulation on your success, my friend / you deserve it, my friend.</p>	V		<p>someone after he won a singing contest, what would you say ?”</p>
	3.2		<p>7. When you come in night premiere and you look someone wear a nice hat. What would you say?</p> <p>Answer : That hat suits you very well, you look great / good / gorgeous, what a nice / good hat you wear.</p>	V		<p>9. Linguistic features (Grammatical error) Better to use the order as follows ; “Situation : you are coming into a night premiere of an Indonesian movie, everyone dressed very classy. Then, you see someone wearing a nice hat. What would you say to that person ? ”</p>
	3.2		<p>8. When you come in Salsa’s birthday party. What would you say to Salsa? Answer : Happy birthday, Salsa</p> <p>9. If you moeslim religion, when you can say “ Happy ied fitri mubarak!”</p>	V		<p>10. Linguistic features (Grammatical error) Better to use the order as follows ; “Situation : You are coming to Salsa’s birthday party. When you meet her, what should you say to her ? ”</p> <p>11. Linguistic features (Grammatical error) Better to use the order as follows ; “ When do we say ‘Happy eid al fitri!’ to our colleagues ? ”</p>

Number	Indicator	Cognitive Level	Item Test & Answer	Valid	Invalid	Recommendation / Note
			Answer : During Eid al fitr 10. When your mother cook fried rice and this good taste. What would you say to your mother? Answer : It's a good fried rice, This is so good / delicious.			12. Linguistic features (Grammatical error) Better to use the order as follows ; " When your mother cooked a delicious fried rice for you, what should you say to compliment her ? "

Based on the results of observing the students' cognitive achievement, the researcher found that for indicator 3.1, most of the students are lack in mastering the linguistic features aspect. For indicator 3.2, most of the students are lack in mastering both generic structure and linguistic features aspects.

The researcher could not analyze the generic structure aspect contains in indicator 3.1. Because, there are no generic structure aspect which can be used to measure the students' cognitive achievement. In social function aspect, 4 students got Good category, 25 students got Adequate category, and 1 student got Deficient category. In linguistic features aspect, all of the students got Deficient category.

Table 2. The Results of Students' Cognitive Achievement on Indicator 3.1

Scope of Mastery	Amount of the students	Percentage	Category
Generic Structure		80 - 100%	Good
		61 - 80%	Adequate
		0 - 60%	Deficient
Social Function	4	80 - 100%	Good
	25	61 - 80%	Adequate
	1	0 - 60%	Deficient
Linguistic Features	-	80 - 100%	Good
	-	61 - 80%	Adequate
	30	0 - 60%	Deficient

The results of Students Cognitive achievement on Indicator 3.2 can be known based on the table below. In generic structure aspect, 3 students got Good category, 1 student got Adequate category, 26 students got Deficient category. In social function

aspect, 2 students got Good category, 28 students got Adequate category, and none of the students got Deficient category. In linguistic features aspect, 2 students got Good aspect, 2 students got Adequate aspect, and 26 students got Deficient category.

Table 3. The Results of Students' Cognitive Achievement on Indicator 3.2

Scope of Mastery	Amount of the students	Percentage	Category
Generic Structure	3	80 - 100%	Good
	1	61 - 80%	Adequate
	26	0 - 60%	Deficient
Social Function	2	80 - 100%	Good
	28	61 - 80%	Adequate
	-	0 - 60%	Deficient
Linguistic Features	2	80 - 100%	Good
	2	61 - 80%	Adequate
	26	0 - 60%	Deficient

Discussions

In this section, the researcher presents the discussion of the analysis on the item test of English mid-term test. The test consists of 15 numbers of questions which represented two basic competencies and two materials, indicator 3.1 is about asking and giving information about self identity and indicator 3.2 is about congratulating and complimenting others. The researcher analyzing the test using a table of validity instruments (table 1) which consists of number, indicator, cognitive level, item test & answer, valid / invalid column and recommendations / notes.

For test item number 1-10, these numbers are valid. Hence, there are some grammatical errors which must be revised. The researcher already gave her recommendation in the table 1. The test item analysis results. For the test item number 11-15, these numbers are simple literal questions which the answer can be found easily in the text. Based on the researcher's opinion, these kind of questions are way too simple for cognitive level C3. These questions are valid because already fulfill the purpose of the indicator, 'teks transaksional tulis yang melibatkan tindakan memberi dan meminta informasi terkait jati diri'. However, these questions does not contains generic structure aspect to measure the students' ability in answering the questions with the right generic structures of indicator 3.1 which are consists of asking and responding.

The researcher also discusses the research findings of observing X IPS 1 students' cognitive achievement on English mid-tem test. In observing the students' answer sheets, the researcher use a table of validity instruments. The results showed that there are no generic structure aspect which can be used to measure the students' cognitive achievement for indicator 3.1, questions number 11 - 15. For indicator 3.1, most of the students are lack in mastering the linguistic features aspect. For indicator 3.2, most of the students are lack in mastering both generic structure and linguistic features aspects.

Conclusion

After analyzed the English mid-term test and observing the students' answer sheets of class X IPS 1, there are several results; The item test analysis of English mid-term test as basic competence statement are valid. All of the item tests are match with the indicator / basic competencies and the cognitive level. Hence, there are some grammatical errors and the questions did not represented HOTS points. The observations of students' answer sheets divided into two, for the indicator 3.1 which represented in questions number 11 - 15, most of the students are lack in mastering the linguistic features aspect. For indicator 3.2, most of the students are lack in mastering both generic structure and linguistic features aspects. However, some of them also gave the wrong answer.

Based on the discussions of the results, the researcher conclude that every teacher need to understand assessment, especially in constructing the item tests. The results of students' cognitive achievement which most students got adequate and deficient, probably because they misunderstood some of the questions, also they learnt these materials in a transition between normal situation and pandemic era, the platform which used to study were not 100% prepared, the teachers and the students also struggled together to adapt.

The researcher also has a recommendation for the other researcher. The researcher hopes the other researcher can conduct related research not only in validity aspect but much wider and give recommendations to overcome the shortcomings.

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