

# DESIGNING AFFECTIVE INSTRUMENT BASED ON SCIENTIFIC APPROACH FOR ENGLISH LANGUAGE LEARNING

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**Abstract.** This research was describing the designing of instrument for affective assessment in English language teaching. The focus of the designing was only for observation sheet that will be used by English teachers during the teaching and learning process. The instrument was designed based on scientific approach that has five stages namely observing, questioning, experimenting, associating, and communicating. In the designing process, ADDIE Model was used as the method of research. The designing of instrument was considering the gap between the reality and the teachers' need. The result showed that the designing was also notice to the affective taxonomy such as receiving, responding, valuing, organization, and characterization. Then, three key words were used as the indicator to show the five levels of affective taxonomy such as seriously, volunteer, and without asked by teacher. Furthermore, eighteen types of affective such as religious, honesty, responsible, discipline, hard work, self confidence, logical thinking, critical thinking, creative, innovative, independent, curiosity, love knowledge, respect, polite, democracy, emotional intelligence, and pluralist were put on each stage of scientific approach. So, it is hoped that can be implemented in all of context of English language teaching at schools and can assess the students' affective comprehensively.

**Key Words:** Designing, Affective, Instrument, Scientific Approach

## Introduction

Assessment is an ongoing process that encompasses a much wider domain [1]. According to Nitko, an assessment is a process obtaining information that is used for making decision about students, curricula and programs, and education policy [2]. In education, a teacher has an important role in assessing the progress of students' competences in learning such as cognitive, affective, and psychomotor competence. Bloom, et.al. describe that cognitive competence deals with the recall or recognition of knowledge and the development of intellectual abilities and skills. Affective competence includes objectives which describe changes in interest, attitudes, and values, and the development of appreciations and adequate adjustment. Then, psychomotor competences attempts at the manipulative or motor-skill area [3]. These three competences are related each other.

How are those three domain related each other?

A positive and stable emotion can motivate learners to be more active in learning. They will not easy to get depression when they fail to learn something. LeDoux in Koblowska states that minds without emotions are not really minds at all [4]. Piasecka also found that positive emotions and feelings can help students in developing their communication skills [5]. So, it can help the students to improve their competence in mastering English.



Furthermore, affective is not only affects the cognitive, but also affects the psychomotor domain. Harrow states that desire to move are commanded by attitude [6]. Thus, if the learner has no desire to move, then he will get nothing. So, in order that to force the students want to move, it needs a motivation. Moreover, the motivation itself is part of affective. In other words, if the students have no motivation, they won't make a movement at all. It is also can be said the successful of students in learning is not only caused by their intelligence, but also the goodness of their affective.

For that reason, Indonesian government asks teachers, included English teachers, to assess these three domains in teaching and learning process [7]. The purpose of assessment is to view the students' learning progress, the students' learning outcome, and to detect the problems of learning in order to improve the quality of learning in the future. That's why, the English teachers need an appropriate instrument to assess the goodness and badness of the students' affective.

In fact, based on the preliminary study that was conducted at Junior High Schools in Merangin District of Jambi Province, it was found that the English Teacher hadn't an appropriate instrument to assess the students' affective during the teaching and learning process. Moreover, the English teachers said that the progress of students' affective is very important to be known in order to rank the best students in a classroom. It means, the first rank will be given to the student who has higher intelligence and best attitude only. In other words, even though there is a student who is good in cognitive, but has a bad attitude, the first rank can't be given to him/her.

To overcome this problem, Brown explains that a teacher can use journal, interview, observation, self-assessment, and peer-assessment to assess the students' affective [1]. But, Indonesian government only provides a general guideline in assessing students' affective. Its' purpose is the teachers are hoped can develop the affective instrument based on the subject which is taught by the teacher. In fact, the English teachers were still having the difficulties in designing an affective instrument. It was caused by they must relate the assessment based on the approach of teaching that is scientific approach. Hosnan describes that there are five stages of scientific approach, i.e. observing, questioning, experimenting, associating, and communicating [8]. So, the English teachers must assess the students' affective in these five stages.

In line on that reasons, the designing of instrument for affective assessment was based on scientific approach. In this case, ADDIE Model was used as the process of designing this instrument. While, the focus of the designing was only for observation sheet that will be used by English teachers during the teaching and learning process. The designing of the affective assessment was also notice to the affective taxonomy which is suggested by Krathwohl, et.al. It consists of five levels that are receiving, responding, valuing, organization, and characterization [9]. So, three key words are used as the indicator to show the five levels of taxonomy such as seriously, volunteer, and without asked by teacher. Then, 18 (eighteen) types of affective such as religious, honesty, responsible, discipline, hard work, self confidence, logical thinking, critical thinking, creative, innovative, independent, curiosity, love knowledge, respect, polite, democracy, emotional intelligence, and pluralist were put on each stage of scientific approach. .

Finally, the product of the designing is hoped can be used to assess the progress of students' affective time by time. It is also hoped can give impact toward the improvement of students' affective, because they will always feel under the teachers' control during the teaching and learning process. Moreover, it is hoped can assess the students' competences comprehensively in all domains.

## Method

In designing the instrument of affective assessment based on scientific approach for English language classroom, the researcher used ADDIE Model. This model is suitable because it has five stages such as Analyze, Design, Develop, Implementation, and Evaluation [10]. So, the researcher analyzed the English teachers' needs toward the affective assessment that was developed. The researcher took six English teachers from three Junior High Schools in Merangin District of



Jambi Province as the informants for this research. The consideration of choosing these six English teachers was because they taught English at school by using scientific approach.

Furthermore, in gathering the data, the researcher used open-ended questionnaires. The six English teachers were asked to fill the questionnaire in order to know their needs. Then, the researcher was sorting out the English teachers' needs in accordance with the objectives or the results to be achieved from this research. After that, the researcher designed the instrument of affective assessment based on scientific approach for English learning that is connecting the theories and needs in the field. This is referred to as the first draft.

## **Results and Discussion**

First step in designing the instrument for affective assessment was doing need analysis. So, before designing the instrument for affective assessment, the researcher analyzed the teachers' need in order to find out the instrument for affective assessment which is appropriate for English language teaching. It is important to figuring out the current condition to the desired condition in order to define the problems and to determine the specific product [11].

To find out the teachers' needs, the researcher used open-ended questions. Raths, Harmin, and Simon in Bloom, et.al. view that the open-ended question has been effective in getting at attitudes, beliefs, activities, and values [12]. In open-ended question, the teachers' concern and points of misunderstanding can be seen. So, the researcher used *what*, *how*, and *why* concepts to reach valuable insight from the English teachers.

The concept of *what* is aimed to know the understanding of teachers related to affective judgments. The teacher's understanding commonly will affect the implementation of using the instrument for affective assessment. Furthermore, the concept of *how* is aimed to explore the real conditions that occur in the process of learning English in the classroom. By knowing the realities or current conditions that occur in the English classroom during the teaching and learning process, it can be the main source in designing the instrument for affective assessment based on a scientific approach. Meanwhile, the concept of *why* is aimed to explore the teacher's reasons or the reflection of the teacher's own expectations related to affective judgments.

Based on the answers given by the informants, it is known that there are 18 (eighteen) types of affective that are hoped can be assessed by the English teachers during the teaching and learning process in the classroom i.e. religious, honesty, responsible, discipline, hard work, self confidence, logical thinking, critical thinking, creative, innovative, independent, curiosity, love knowledge, respect, polite, democracy, emotional intelligence, and pluralist. These types of affective will become an input to the learning outcomes which is called as the affective entry characteristics as described by Bloom [13]. Specifically, these types of affective are divided into:

1. First stage, observing, the affective orientation are religious, respect to others, curiosity, hard work, logical thinking;
2. Second stage, questioning, the affective orientation are curiosity, love science, logical thinking, critical thinking, emotional intelligence, responsible;
3. Third stage, experimenting, the affective orientation are polite, honest, hard work, creative thinking, innovative thinking, independent, self-confidence;
4. Third stage, associating, the affective orientation are honest, hard work, creative thinking, innovative thinking, logical thinking, critical thinking, self-confidence, discipline, responsible; and
5. Third stage, communicating, the affective orientation are honest, democracy, logical thinking, critical thinking, polite, self-confidence, respect to others, responsible, pluralist.

### ***Designing Instrument for Assessing Affective in English Language Learning***

Based on need analysis, it can be concluded that the English teachers need a simple instrument for assessing students' affective. They are also need an easy instrument to be used during the teaching and learning process in the English classroom. It is expected that the instrument of



affective assessment based on a scientific approach which has designed will be more comprehensive, easier or simple, effective, and useful in assessing students' affective during the learning process.

Then, the eighteen types of affective can be associated into attitude, self efficacy, values, self concept, and interest [14]. These affective cannot be directly observed. In other words, assessing affective domain is not easy, because the affective of someone can be changed time to time. Besides, the affective is something abstract and inner that can't be seen by eyes. But, it doesn't mean that the affective can't be assessed. We can only infer that a person has good or bad affective by her /his words and actions [15]. Moreover, nonverbal behaviours have also been measured affective [16]. So, in assessing affective of students in the classroom, an English teacher must see what the students do or what are they respond in some over way toward something.

Furthermore, based on the objective of this research, the designing of instrument for affective assessment is only for observation sheet that is used by English teachers during the teaching and learning process. The observation which is done by teachers is argued will be more effective than other instruments such as journal, interview, self-assessment, and peer-assessment. According to McCoach et.al direct observation is a very popular method of data collection in education and the social sciences, and it is the preferred method for collecting certain types of data, included affective assessment [17]. That's why, it is hoped that the English teachers can assess the students' affective objectively.

Simply, then, the basic design of instrument for affective assessment based on scientific approach can be seen in table 1 as follow:

Table 1. The Basic of Designing Instrument for Affective Assessment

Aspect	Current Affective Assessment at School	Desired Affective Assessment
Affective Assessment Technique	It is used a blank paper to assess the student's affective	It is formed into observation sheet with the detail assessment
Affective taxonomy	It is not based on affective taxonomy	It is divided into five levels i.e. receiving, responding, valuing, organization, and characterization
Scientific Approach Stages	It is not based on scientific approach stages	It is divided based on scientific approach i.e. observing, questioning, experimenting, associating, and communicating
English Learning Process	Assessment is only once for one basic competence	Assessment for each material in one basic competence
Types of Affective	It focuses on one affective for one meeting such as politeness only, or others	There are 18 (eighteen) types of affective were spread out in every stages of scientific approach in one meeting

Based on table 1, there are five aspects to be the basic in designing the instrument for affective assessment such as types of affective assessment technique, affective taxonomy, scientific approach, English learning process, and types of affective. In the current condition, it can be seen that the English teachers were only using a blank paper to assess the students' affective. Besides, they can't divide the assessment into levels in affective taxonomy and in every stage at scientific approach. Even, they were only assessing once for one basic competence and focus on one type of affective. So, the English teachers hope that there is an observation sheet with detail assessment such as consist of five levels of affective taxonomy, divided into five stages of scientific approach, assess the affective for each material of teaching English, and comprehend for all types of affective.

In accordance with the teachers' hope, the researcher took model that is suggested by Joyce, et. al. [18]. This model consists of five elements such as syntax, the social systems, principle



of reactions, support system, and instructional and nurturant effect. In detail, the components of these five elements can be seen as follows:

1. Syntax consists of two aspects. First, the guidance of using and filling the instrument of *affective assessment based on scientific approach*. Second, the indicators and scoring rubric for instrument of affective assessment based on scientific approach. In this case, the English teachers can give score in rank 1 (one) until 4 (four). Score 1 (one) is the lower score, and score 4 (four) is the higher score.
2. Social system consists of two aspects. First, the user of instrument for affective assessment based on scientific approach is the English teachers at Junior High School. Second, the target of application the instrument for affective assessment is the students who learn English in the classroom at Junior High School.
3. Principle of reactions consists of three aspects. First, the affective assessment will be done in every stage of scientific approach. Second, the affective assessment will be aimed into five level of affective taxonomy. Third, the affective assessment will be focused on into some types of affective.
4. Support system is instrument of affective assessment based on scientific approach
5. Instructional and nurturant effect hope that the students' affective can be controlled during the teaching and learning process.

In addition, the researcher made detail assessments for each stage of the scientific approach. It had designed separately in different space for observing, questioning, experimenting, associating, and communicating. Furthermore, for taxonomy of affective, the researcher designed some statements as the keywords that reflect the level of affective taxonomy such as 'seriously', 'volunteer', and 'without being asked by the teacher'. Meanwhile, for English language skills, it consists of speaking, listening, reading and writing. Finally, the material of teaching is considered into the syllabus of English language teaching for Junior High School.

This effort is suitable with the researched done by Markle dan O'Banion [19] who found that it is needed a teacher to assess the students' affective in order to create positive attitudes and improve their learning outcomes. Moreover, Olalekan [20] argues that students who have good affective will have more power in facing the problem in 21<sup>st</sup> century. That is why the affective assessment is needed to be done.

## Conclusion

Assessing affective has its own unique problem. Assessing affective is not a simple one, because a teacher infers the relationship between behaviours and what the students' say. The affective itself is the result of many complex factors such as previous experience, expectations of other, and consequences of a particular act. Unfortunately, sometimes, a teacher found inconsistently of affective that is showed by students every day. But, it doesn't mean that the affective can't be assessed. Absolutely, in teaching and learning process, everything can be assessed. It needs the responsible of the teachers, being patient, and creative in carrying out the roles as the teachers.

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