COMPUTER SCIENCE STUDENTS’
ATTITUDES TOWARDS
ENGLISH LANGUAGE LEARNING

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Abstract

This study is intended to know the attitudes of Computer Science students in Universitas Brawijaya towards English Language Learning in term of cognitive, affective, and conative aspects. It is a quantitative study and survey was used to collect the data. There were 100 students out of 954 students of Computer Science students of Universitas Brawijaya who became the sample of the study. The instrument used was Gardner’s Attitude and Motivational Test Battery (AMTB) questionnaire consisting of 46 items with four Likert Scale. The findings show that the samples gave positive attitude toward English learning in terms of all aspect. It means that all of them really interested in their English class.

Keywords; attitude, English as Specific Purposes (ESP), cognitive, affective, conative.

INTRODUCTION

English for Specific Purposes (ESP) that was introduced by Hutchinson & Waters (1987) refers to an approach to language teaching in which all decisions as to content and method are based on the learner’s reason for learning. The word ‘special’ in ESP relates to the domain that the teaching of English is based on the students’ needs. It means that the English teaching will be based on students’ area of study. Thus, in terms of learning English, the students in one area of study will be different from those in other areas.

As the greater globalization in industry and academia, Anthony (2015, p.17) says that ESP teaching will become an increasingly important part of university English curricula. It is because the students need English after they graduate from university. This idea supports Schleppegrell and Bowman (1986, p.2) who state that ESP integrates subject matter and English language instruction so the students are able to apply what they learn in English classes to their major field of study. Therefore, it is important for those in...
high level of education to learn English for Specific Purposes.

In Indonesia, ESP becomes a compulsory subject in tertiary level of education. The need to learn English comes to the university students in order to get a good job. It is in line with Suyanto et. al (2000, p.50) who found that most of companies in Indonesia include English ability as the general requirement for the job applicants. Besides, applicants must be able to use technology, such as computer, in which English is used as the instruction. This phenomenon makes the needs of English become crucial for all students, including the ones in computer science major who become the subjects of the current study. As a result, Computer Science students need to have good skills of English language, especially to help them when they are dealing with computer software.

There are many factors that contribute to the success of language learning, as English in Indonesia is not the first language (L1). Gardner (1985, p.8) states that the process of learning English as a second language is influenced by many factors, such as attitudes and motivation, which determine the second language (L2) achievement and attainment. In line with it, Baker (1992, p.12) says that if a student does not feel the need of acquiring L2, most probably this student will have a negative attitude and will not be interested in learning language.

Some studies show that students’ attitude and motivation in learning English relate to their English competence (Bidin, et al: 2009; Al-Tamimi and Shuib: 2009; and Abdullah: 2014). The participants of these three studies were in university level. Bidin et. Al. (2009) identified the students’ attitudes and motivation in learning English and the correlation towards English language performance. The participants were the students of University Technology Mara. Their study showed that attitude does affect students’ language performance.

Al-Tamimi and Shuib (2009) who conducted research to the Petroleum Engineering Students also found that the attitude of towards English learning is positive. The conclusion was taken from the result of the questionnaire which showed that the majority of the students had great desires towards speaking English well like fluent speakers. The same result is also shown by Abdullah (2014) who carried out a survey to identify National University of Malaysia (UKM) undergraduates’ motivation and attitude towards learning the English language. His study showed that majority of the students have high motivation and positive attitudes towards the learning of English as a second language. These three studies similarly used the theory analyzed the attitudes.

While the previous three studies show the positive motivation and attitude toward English leaning, the studies conducted by Jafre et al (2012) and Nageep (n.y) demonstrate
differently. In their study, Jafre et. al. (2012), who did a research on Libyan secondary school, shows that most of students have negative attitudes towards English learning. Naqeeb (n.y.), who conducted a research on Law students, finds some items that show negative, although the result shows positive.

All the studies above analyzed the students’ attitude and motivation in which English is not their first language. In Indonesia, which is English is a foreign language the similar study is barely found, especially for the students in computer science major. However, knowing the attitudes of the students, especially in non-English major, will be useful to predict the success of teaching learning process. Therefore, it is worth conducted.

LITERATURE REVIEW

Attitude
Attitude has varied definitions from the researchers but they have same aim and meaning. Based on Ajzen (1998, p.3), attitude is a disposition to respond favorably or unfavorably to an object, person, institution, or event. In line with it, Baker (1992, p.11) says that attitude defines about people’s thoughts, processing system, and feelings which are those units are basically hidden. Therefore, attitudes cannot be directly observed. It is different from height, weight, or classroom attendance which could be directly observed and accurately measured. Although attitude is latent, researching attitudes is one of the most efficient ways to summarize, explain, and predict someone’s behavior. Based on Bem (1968, cited in Baker 1992, p.11), attitudes are self descriptions or self perception. To sum up, attitude tells about people’s thoughts and feelings towards an attitude object.

Baker (1992, p.12) says that attitudes can be positive or negative. An example of the positive attitude, people who beliefs the importance of English language learning may continue to learn English more in the future. On the other hand, people who has a belief that learning English is useless may does not care about English language learning and does not send his children to the bilingual school.

Attitudes are categorized into three components. There are cognitive, affective, and conative. Based on Baker (1992, p.12), cognitive component concerns thoughts and beliefs. Affective component talks about people feelings or emotions, such as fear, hate, or anxiety. Conative component is defined as a readiness for action.

Cognitive
Based on Baker (1992), cognitive component concerns thoughts and beliefs. It does not talk about feelings or preferences. Gardner (1985) also said that cognitive component refers to individual’s beliefs. According to Barcelos (2014), cited in Paula et. al. (2015), belief is a form of thought, construction of reality, ways of seeing, and perceiving the world and its phenomena which are constructed by our experiences. It also tells about people’s thoughts and opinions about something. A positive attitude to the
English language might entail a stated belief in the importance of continuity to learn this language, or moreover to learn the culture of English.

Affective
Feeling is the exact word how we define affective component (Baker: 1992). It talks about whether people like or dislike towards an attitudes object. In addition, it also talks about people feelings or emotions about something, such as fear, hate, or anxiety. An individual who loves English poetry shows that he has a positive attitude toward English language. On the other hand, a student who never does his English homework shows that he has a negative attitude towards English.

Based on Baker (1992), cognitive and affective components may not walk in a harmony. They might be contrasted each other which means one of them is in the positive side whereas the other one is in the negative side. For example, someone believes that all teenagers are lazy, but he does not hate them. In this case, this person has negative attitude in the cognitive component, but he shows positive attitude in the affective component.

Conative
Baker (1992) defines conative component as a readiness for action. While Gardner (1985) defines it as the tendency to behave toward the attitude object. In other words, conative is kind of action made by people towards an attitude object regarding to the cognitive and the affective components. Ajzen (2015) says conative is like what people say to do, plan to do, or would do under appropriate circumstances. For example, people with a positive attitude to English might state they would send their children to a bilingual school. Another example, people with negative attitudes towards the medical profession might indicate that they would refuse to be hospitalized. On the other hand, those with negative attitudes might express intentions to donate money to a fund for a new hospital wing, or they might plan to encourage their children to go to medical school.

RESEARCH OBJECTIVE
This study was conducted to see the attitudes of Computer Science students in Universitas Brawijaya towards English language learning. It is elaborated into three components, those are :
1. to investigate the students’ attitudes in term of cognitive component;
2. to investigate the students’ attitudes in term of affective component; and
3. to investigate the students’ attitudes in term of conative component.

RESEARCH METHODS
This study is a quantitative research. Quantitative research is explaining phenomena by collecting numerical data that are analyzed using mathematically based method (Muijs: 2004, p.1). The writers used survey method to collect the data. Survey research is collecting the data by using standardized questionnaire
forms administered by telephone or face to face, by postal pencil and paper questionnaires or increasingly by using web-based and e-mail forms. In this study, the writers used a questionnaire which was given directly to the sample of the study. They had to answer the questionnaire directly by using pen or pencil.

**Population and Sample**

The population in this study was 954 Computer Science students of Universitas Brawijaya. Then, the the sample was 100 students who were chosen randomly. The number of the sample was taken based on Arikunto (2006, p.112), who states that the minimum number of the sample that could represent the population is 10% of the total population.

**Instruments**

Related to the objective of the study, the writer used the existed Attitude Questionnaire of Jafre’s et al. (2012) and Naqeep’s (n.y.) with 46 items. It is a four-points Likert scale questionnaire which actually was developed based on Gardner’s Attitude and Motivational Test Battery (AMTB).

To make it understandable, the questionnaire was translated into Indonesian considering the participants were Indonesian people. Therefore, the writer needed help from an expert validator to validate the translation and the construct of the questionnaire so that the questionnaire was ready to use for the tested sample.

After validating the questionnaire to the test validator, the writers tried out the questionnaire to 18 students of Computer Science study program from different universities. To know the content validity, Product Moment Correlation was applied. The result showed that there were 23 valid items and the other 23 were not valid. Thus, the writer dropped these items and only used the valid items to be tested to the sample.

Then, to know the reliability of the questionnaire, Cronbach Alpha formula was used. After removing the 23 items, the writer found that the Cronbach Alpha value of the questionnaire was 0.932. It means that the reliability of the instrument is very strong. Therefore, 23 items were used as the instrument.

**Data Analysis**

In analyzing the data, the writer did some steps, those are categorizing each item into their component (cognitive, affective, or conative), transforming the raw data into the numerical form, inserting the data into Microsoft Excel to calculate the mean score of each item, describing the attitudes of the students based on the result to know the attitudes of the students, and the last is calculating the mean score for overall attitudes to know the attitudes of the students in general.

**FINDINGS AND DISCUSSION**

The analysis of the data was based on the students’ responses to the statements related to the three components of attitude. They were asked to tick any of four alternatives *strongly agree, agree, disagree,* and
**strongly disagree.** The alternatives then were changed into numerical form, and percentages of each component were calculated to indicate the findings.

**The Cognitive Attitudes towards English Learning**

Table 1. Students’ Cognitive Attitude towards English Learning

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item</th>
<th>Percentage</th>
<th>N</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Studying English is important because it will make me more educated.</td>
<td>86%</td>
<td>100</td>
<td>3.44</td>
</tr>
<tr>
<td>4</td>
<td>I have more knowledge and more understanding when studying English.</td>
<td>80%</td>
<td>100</td>
<td>3.20</td>
</tr>
<tr>
<td>10</td>
<td>I cannot summarize the important points in the English subject content by myself.</td>
<td>63%</td>
<td>100</td>
<td>2.52</td>
</tr>
<tr>
<td>11</td>
<td>Frankly, I study English just to pass the exams.</td>
<td>78%</td>
<td>100</td>
<td>3.11</td>
</tr>
<tr>
<td>16</td>
<td>Studying English helps me communicate in English effectively.</td>
<td>86%</td>
<td>100</td>
<td>3.45</td>
</tr>
<tr>
<td>17</td>
<td>Studying English makes me able to create new thoughts.</td>
<td>72%</td>
<td>100</td>
<td>2.89</td>
</tr>
<tr>
<td>19</td>
<td>In my opinion, English language is difficult and complicated to learn.</td>
<td>79%</td>
<td>100</td>
<td>3.14</td>
</tr>
<tr>
<td>20</td>
<td>English subject has the content that covers many field of knowledge.</td>
<td>79%</td>
<td>100</td>
<td>3.16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>78%</strong></td>
<td>100</td>
<td><strong>3.11</strong></td>
</tr>
</tbody>
</table>

Cognitive component concerns about thoughts and beliefs. It does not talk about feelings or preferences. Table 1 shows that the mean score of students’ responses toward the statements dealing with cognitive component was 3.11, which is equivalent to 78%. It means that most of the students show positive cognitive attitude towards English learning.

The highest mean score, that is 3.45, refers to the statement *studying English helps me communicate in English effectively*. They believe that studying English is needed for communication. Furthermore, most of the students also believe that English is very important for them because it makes them more educated as English subject covers many field of knowledge. It means that English really help them in studying the other subjects in their area of study which mostly use English. Therefore, the needs of this international language is undeniable.

This phenomenon is also supported by the fact that they cannot summarize the important points in the English subject content. It shows that the students need more English instruction because their English competence seems not too good. Moreover, more than half of the sample agreed that English is difficult and complicated to learn. It shows the highly need of English class.

**The Affective Attitudes towards English Learning**
Table 2. Students’ Affective Attitude towards English Learning

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item</th>
<th>Percentage</th>
<th>N</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>I feel proud when studying English language.</td>
<td>76%</td>
<td>100</td>
<td>3.05</td>
</tr>
<tr>
<td>3</td>
<td>I feel excited when I communicate in English with others.</td>
<td>74%</td>
<td>100</td>
<td>2.95</td>
</tr>
<tr>
<td>5</td>
<td>I don’t get anxious when I have to answer a question in my English class.</td>
<td>69%</td>
<td>100</td>
<td>2.76</td>
</tr>
<tr>
<td>6</td>
<td>Studying foreign languages like English is enjoyable.</td>
<td>76%</td>
<td>100</td>
<td>3.02</td>
</tr>
<tr>
<td>8</td>
<td>Studying English makes me have good emotions (feelings).</td>
<td>69%</td>
<td>100</td>
<td>2.75</td>
</tr>
<tr>
<td>12</td>
<td>I enjoy doing activities in English.</td>
<td>68%</td>
<td>100</td>
<td>2.73</td>
</tr>
<tr>
<td>13</td>
<td>I do like studying English.</td>
<td>85%</td>
<td>100</td>
<td>3.38</td>
</tr>
<tr>
<td>22</td>
<td>Knowing English is an important goal in my life.</td>
<td>74%</td>
<td>100</td>
<td>2.95</td>
</tr>
<tr>
<td>23</td>
<td>I look forward to the time I spend in English class.</td>
<td>58%</td>
<td>100</td>
<td>2.30</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>72%</strong></td>
<td>100</td>
<td><strong>2.88</strong></td>
</tr>
</tbody>
</table>

The affective aspect of attitudes, refers to ones’ feelings and emotions when they are learning English. Different from cognitive aspect, affective aspect tends to see whether the students like or dislike towards an object, in this case is the English learning. The result of the study shows that the mean score of the students’ respond was 2.88, which is not too high. However, it still shows that they have positive attitudes in term of affective aspect. In other words, they tend to like english as it is shown in item 13 which is 85% of them really like to study the subject. The students feel proud and excited in English learning and they feel that studying foreign language is enjoyable. Probably, the most interesting part in the affective aspect is the result of item 5 that is I don’t get anxious when I have to answer a question in my English class. It really supports that the students have good feeling toward the language.

Interestingly, the result of the last item which discuss about their willing to spend other English class doesn’t support the previous conclusion. More than half of the respondents were not really missing English class. It might happen because of their experience in learning the language before.

The Conative Attitudes towards English Learning

Table 3. Students’ Conative Attitude towards English Learning

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item</th>
<th>Percentage</th>
<th>N</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>I am able to make myself pay attention during</td>
<td>77%</td>
<td>100</td>
<td>3.08</td>
</tr>
</tbody>
</table>
Conative aspect of attitudes tells about how the students react and behave towards English learning. It is kind of action made by the students towards an attitude object regarding to the cognitive and the affective components. The mean score of the students’ responses toward the conative component was 2.96, which is equivalent to 74%. It means that the students show positive affective attitude towards English learning.

The result of the study shows that the students pay attention to the English instruction and they become more confident after having English learning. In contrast, they were not relaxed when they have to speak in front of the class and they were embarrassed to do so. Furthermore, they were not enthusiastic to the English class. Surprisingly, most of the students like to practice English the way native speakers do.

This finding show that the students have good attitude toward the English class and they try hard to focus on the subject in spite of their shyness and unconvenience in speaking activity. Their attendance to join the class really based on their individual needs as they actually not have high exitement toward the class. This happen might because of either the uninteresting English teaching learning activity or the unconvenient classroom atmosphere during the activity.

**Computer Science Students’ Attitudes towards English Learning**

Gardner (1985) says that the process of learning English as second language is influenced by many factors, such as students’ attitudes and motivation, which determine the second language (L2) achievement and attainment. The needs to have positive attitude is very important to get a positive achievement.

The result of the present study shows that the Computer Science students have positive attitudes towards English learning with the overall mean score 2.98 which is equivalent to 75%. They belief that English is very important for them. Therefore, they give positive attitude toward the English class although they might dislike it. Their willingness to attend the class was really based on their needs of the language as English is used as the instruction in other subjects in their field of study.
Their positive responses toward English learning might also driven by the need to get jobs in the future. It is in line with the study done by Suyanto et.al. (2000) that found out most of companies in Indonesia include English ability, both in speaking or writing, as the general requirement for the job applicants. Beside that, the desire to continue their study abroad might also become a reason to study the language. It is based on the fact that there are so many scholarships offered to Indonesia students nowadays.

CONCLUSION

In the present study, the result demonstrates that the students show positive attitudes towards English language learning in all components. Although the students are not in English major, they have positive attitudes towards English language learning. This is very good for the students considering attitudes have a big role in learning a language. As stated by Gardner (1985, p.8) that the process of learning English will be influenced by many factors, one of them is attitude. Therefore, keeping the attitudes of the students to be positive is very important.

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