

EFFECTIVENESS OF INQUIRY BASED LEARNING METHOD TO INCREASE STUDENTS CRITICAL THINKING SPEAKING SKILL SMA PARULIAN 2 MEDAN

Agresia Meirani Telaumbanua

English Department, University of HKBP Nommensen, Sutomo St. No.4A,
Medan, Indonesia

Email: agresiameirani97@gmail.com

ABSTRACT

This research is intended to find out Effectiveness of Inquiry Based Learning Method to Increase Students Critical Thinking Speaking Skill SMA Parulian 2 Medan. This research is conducted by applying Quantitative Experimental research. The sample of this research is two classes that consist 60 students which were selected by using random sampling technique. The first group is class XI MIA 2 (consist of 30 students) as a experimental class and class XI IPS 1 (consist of 30 students) as a control group. The instrument used for collecting the data is by giving the students speaking test. The test consist of pre-test, and post-test. The data was analyzed by using t-test formula in order to see wheter Inquiry Based Learning Method affects Students' Speaking skill or not. The result of the analysis showed that t-observed is 4,43 higher than t-table 1,671 at level significance 0,05 with the degree of freedom 58. It means that alternative hypothesis (Ha) is accepted and null hypothesis (Ho) is rejected. Therefore there is significant affect of Inquiry Based Learning Method on Students's Speaking Skill of Eleventh Grade at SMA Parulian 2 Medan. Therefore Inquiry Based Learning Method can be applied by English Teacher in teaching speaking skill.

Keywords: Inquiry Based Learning Method, Increase Students Critical Thinking. Speaking Skill

Introduction

English is a global language and is used in such activities, education, technology, social status, and modernization. In Indonesia, English has been taught as a foreign language. It is important subject in this globalization era especially in Indonesia. But, not all students really like to learn English, since it's difficult to them as foreign language English is not interesting and unnecessary in their daily activities. English in Indonesia has been taught since the Kindergarten up to University level. One should master four basic skills of English like: speaking, listening, writing, and reading. In Senior High Schools, students are expected to be able to communicate well in those four skills, Speaking becomes the difficult one of these skills especially for Senior High School students in Indonesia. In learning English the students are expected to be fluent in communicating with others. That's why speaking is very important.

Speaking is an important skill in language learning, it is one of the most important components to

be mastered. Our live can't be separated from communication it self. Speaking skill servers the students to be able to communicate their opinion, feeling and expression, with no limitation of different native language, culture or country. Students can express their feeling and learn the social and cultural rules which appropriate in any communicative circumstance. In addition, they can prepare themselves to gain more competence for applying better job, enrolling competitive university, or participating in international communities, so that they can compete with the development of the modern era.

Based on writer's experience in teaching English at SMA Swasta Parulian 2 Grade Eleventh, the writer found that's students have problem to learn English. Especially for speaking skill, students have problem in performing the critical thinking in English conversation. Student's problematic based on my interview of 4 students and the writer can conclude that students they almost writer know how to think critically in speaking. Students said that they didn't know what to speak and how to expression in their mind. Beside it, students are lack to practice English out

of class because most of their friends speak in Indonesian. Students are often inhibited about trying to say things in foreign in the classroom, worried about mistakes or simply shy of the audience.

There are some methods in teaching speaking skills namely like singing a song of Western songs, small group discussion, guided learning, debate pros & cons, watching videos and that's one of the methods will be focussed in speech. Speech is a great way to help students not only to improve their speaking skills but also a best way to able critical thinking in English. According to Webster (2012 : 655) states that speech is a spoken expression of ideas, opinions, etc. That is made by someone who is speaking in front of a group of people their speech intent on inform audience.

In this modern era of students required to be able to speak. A good speaker will also think about the delivery method, or the way in which the speech will be conveyed to the audience. There are some kind of method of delivery but the writer will be focus on Inquiry Based Learning as an teaching strategy to achieve the goal. Inquiry Based Learning is a learning and teaching method that prioritizes student questions, ideas and analyses. The writer using Inquiry Based Learning method to help student to increase their critical thinking speaking skill. Inquiry Based Learning is teaching focuses on student's general curiosity into the realms of critical thinking speaking skill (Guido, 2017 : 2). Inquiry Based Learning is an approach to learning that emphasizes the role of students in the learning process. Instead of telling teachers what they need to know, students are encouraged to explore material, ask questions, and share ideas. So, students can independently think critically to find their own knowledge in their own language. Based on writer PPL experience that Inquiry Based Learning can assist students in improving the student's critical thinking speaking skill because students are given the opportunity to be more active in the discovery process, more self-study, think critically to solve problems and find answers in their own language.

Method

Inquiry based learning (IBL) is a way of asking questions, seeking information, and finding new ideas related to an event. That is in IBL, students learn by using cause and effect, relational and critical thinking, and combining both scientific knowledge and operations (Parim, 2009). IBL also requires students to conduct scientific reasoning and use critical thinking

when combining scientific knowledge and processes to generate a perception of science (Bianchini & Colburn, 2000). In IBL, students should learn scientific concepts and improve critical-thinking skills while conducting activities. Inquiry based learning is an instructive approach in which students can acquire information and improve their critical-thinking skills by means of discovery and investigation in authentic settings (Hwang & Chang, 2011).

Inquiry based learning engages students analytic and critical-thinking skills. While analytic thinking enables students to define the similarities and differences in variables and tendencies in data, critical thinking helps them to define the cause of a change in a variable and the effect of one variable on other variables. Through critical thinking, students can draw upon many different resources in order to explain events and predict outcomes. According to (Branch & Solowan, 2003), inquiry based learning which is a student centered approach focusing on the asking of questions, critical thinking, and problem solving, enables students to develop skills needed throughout their whole lives. As such, it helps students to cope with their problems. Moreover, it puts great emphasis on understanding and exploring scientific phenomena, expressing the meanings of these phenomena, enhancement of problem solving, scientific discussion, critical-thinking skills, construction of cognitive structures and cooperation with peers (Tseng, Tuan, & Chin, 2012; Anderson, 2007). Through discussions conducted in an Inquiry based learning environment, students feel like a junior scientist and can learn how to approach issues critically.

In a similar manner, based on a great amount of research findings, Lawson (2010) argues that the inquiry based learning approach improves students' creativity, academic achievement, critical thinking and problem-solving skills. Thus, the IBL approach can be defined as a learning approach making students active throughout their learning lives, enhancing their scientific process using skills, and improving their critical-thinking skills through discussions and activities. In addition, in the 2013 science program, it was suggested that devices and equipment that are easy to obtain, low cost, easy to use, and do not pose any security threat, should be employed in research-inquiry activities. Although these activities should be designed for classroom environments, informal learning settings and laboratories can also be utilized.

Inquiry Based Learning according

Warsono and Hariyanto (2012: 150) is a variety of uses the kind of intelligence needed to do confrontation with real world challenges, ability to face everything new and its complexity there is. In this inquiry based learning model, understanding, transfer knowledge, high-level thinking skills, solving abilities problems, and scientific communication skills are a direct impact learning. While the opportunity for students to obtain the essence of science, scientific process skills, student autonomy and freedom, tolerance to uncertainty and non-routine problems is the impact of accompanying learning.

Based on some of the opinions above, the researcher concluded inquiry based learning is a learning-oriented model on solving problems that are integrated with real life. In IBL students are expected to form knowledge or concepts new information obtained, so students' thinking skills really trained.

Findings and Discussion

In testing hypothesis, the formula of t-test score were applied.

The result of t-test is calculated as the following:

$$\begin{aligned}
 t &= \frac{Mx - My}{\sqrt{\left(\frac{dx^2 + dy^2}{Nx + Ny - 2}\right) \left(\frac{1}{Nx} + \frac{1}{Ny}\right)}} \\
 &= \frac{484,2 - 347,2}{\sqrt{\left(\frac{484,2 + 347,2}{30 + 30 - 2}\right) \left(\frac{1}{30} + \frac{1}{30}\right)}} \\
 &= \frac{137,0}{\sqrt{\left(\frac{831,5}{58}\right) \left(\frac{2}{30}\right)}} \\
 &= \frac{137,0}{\sqrt{(14,3)(0,06)}} \\
 &= \frac{137,0}{\sqrt{0,8598}} \\
 &= \frac{137,0}{0,97} \\
 &= 4,43
 \end{aligned}$$

is obtained that the value of t-observed if 4.43. the distribution of t-observed is used as basis of counting t-critic. In certain degree of freedom (df) the value which was obtained is 58.

$$(df) = Nx + Ny - 2$$

$$(df) = 30 + 30 - 2$$

$$(df) = 58$$

Based on the calculation above, the result of the research shows the mean score the experimental group (64,1) is higher than control group (45,4). The difference was tested by using t-test formula. The result of the calculation shows that t-observed value (4,43) is higher than t-table value (1,671) where Pr (probability) is 0.05 in two-tails. It can be concluded that there is a significant effectiveness of inquiry based learning method on speaking skill of the eleventh grade students at SMA Parulian 2 Medan. In other

words, the alternative hypothesis (Ha) is accepted and the null hypothesis (Ho) is rejected.

Conclusion

Having analyzed the data, a conclusion to the study can be drawn that using inquiry based learning method can give a positive effectiveness on student's speaking skill. There is a difference of the mean core obtained from both of the control group (45,4) and experimental group (64,1). The students who are taught speaking by using inquiry based learning method gain higher achievement than students who are taught without inquiry based learning method. The result of calculate of t-test that t_{obs} value is 4,43.

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