

Exploring The Correlation Between Mathematics Student Teachers' Proficiency and Their Self-Efficacy in Teaching at International School

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Abstract—This study is aimed to find out the relation of student teachers' English proficiency and their self-efficacy in teaching at international school. Students' English proficiency is based on two aspects: students English proficiency score and their self-efficacy in English comprehension. In order to measure students' self-efficacy in English comprehension and in teaching at international school a questionnaire is developed. The questionnaire regarded as valid from both expert judgments and Pearson validity test. Twenty-one undergraduate education students participated in filling the questionnaire. The result shows that students' English ability has high positive correlation with their self-efficacy in English comprehension (0,68). This imply that in increasing students' self-efficacy in their English could also be done by upgrading students' English comprehension and vice versa. While regarding students' self-efficacy on teaching in international school, it is found out that students' English comprehension only has a very low positive correlation with their self-efficacy in teaching (0,09). It is found out later from the correlation of students' self-efficacy on teaching in international school and students' self-efficacy in English comprehension that anxiety is likely to affect students' confidence in teaching at international school. Students are still nervous in communicating with native. This factor also the reason of the small number of negative correlation (-0,16) of students' self-efficacy in English ability and self-efficacy in teaching. Those findings suggest that to increase students' self-efficacy in teaching at international school, teacher needs to minimize students' anxiety and worries in speaking English.

Keywords—*self-efficacy in English, self-efficacy in teaching International school*

I. INTRODUCTION

As for now, there are 198 International school in Indonesia which increase from 192 at 2017 [1,2]. The increasing number of International school in Indonesia results on the needs of more teachers which is qualified to teach in International school. Furthermore, the era of ASEAN Economic Community (ACE) makes the opportunity to teach in ASEAN country wide open [3,4]. One of the implications is the use of English in teaching and learning process [5]. This means that it is a necessity for Indonesian teacher to be able to compete with foreigners and be able to not only communicate but also teaching in English Language.

As a teacher, one must have the required competencies: pedagogy, personality, professional and social, as shown in UU No. 14 Tahun 2005 [6]. Based on some research articles, domains of competence for teacher are: technology, pedagogical and educational, beliefs about teaching and learning, and competences in innovation and professional learning [7]. Teacher lacking one of the competences will result on the failed teaching. As for teachers who teach in an international school must have the ability to communicate with the students who are mainly speak English. This is also part of the social competency. Hence, teacher or prospective teacher of International school who is not native (English as a Second Language Speaker) should learn and improve their English comprehension.

Yuliya, et all said that lower English language proficiency was associated with lower self-efficacy [8]. In other research, English self-efficacy had significant positive correlation to the English learning achievement. Self-efficacy is an important factor in the overall success of English learning [9]. It means that self-efficacy affects the English language proficiency. Sardegna, Lee, and Kusey followed students of English as foreign learners and reported that students with higher self-efficacy will do more practice as a way to improve their proficiency in English [10]. For teachers, self-efficacy can help the students aware to evaluate their beliefs in learning class and English self-efficacy during the teaching of a foreign language [11]. It will be the focus for teacher to be mastered on teaching in International School.

Many studies focus on the correlation between self-efficacy learning English and TOEFL Score [12,13]; correlation between self-efficacy learning English and self-regulated learning strategies [14]. Yet, there are a few studies which is focused on exploring students' self-efficacy in teaching at International school [15].

This study seeks to find out and explore the relation of TOEFL score (later will write as EC/ English comprehension), self-efficacy on English comprehension (SEC) and self-efficacy on teaching at International school (SET). By finding out the relation within those three variables, it can be taken into consideration on how improving prospective teachers' self-efficacy in teaching at International school.

II. METHOD

A. Participants

This study involved 21 participants to fill the questionnaire about self-efficacy in English ability and self-efficacy in teaching at International school. The 21 participants are undergraduate students of mathematics education department who are especially prepared to teach in International schools. The students have quite balanced in English and academic competency.

B. Instruments and Data Collection

A set of two parts questionnaire is developed to measure students' self-efficacy in English comprehension and in teaching at International school is developed. Questions asked in the first part is about students' efficacy in their English ability. Students have to grade their ability in listening, reading, writing and speaking from 0 to 10. In addition, the questionnaire also consists of statement regarding students' English comprehension presented in four Likert scale (strongly agree to strongly disagree). while for the second part which is about students' self-efficacy in teaching at International school consists of questions in regards to students' confidence in teaching using English, student's confidence in applying or taking opportunity teaching in an international school, their opinion The questionnaire regarded as valid from both expert judgments and Pearson validity test [16]. The item which is not valid is deleted and the validity of the remaining items is sure are valid because after we delete

the not valid item the remaining then are tested using Pearson validity test. As for data of students' English comprehension are get from the students' average TOEFL score of three scores get in a semester.

C. Analysis

The analysis is focused on the correlation among the three variables: English comprehension (EC), Self-efficacy in English ability (SEE), and self-efficacy in teaching international school (SET). The correlation is find out using Pearson correlation test [15]. There are three relations to be checked, they are: the correlation between EC and SEE; EC and SET; and correlation between SEE and SET.

III. RESULTS AND DISCUSSION

A set of questionnaires measuring students' self-efficacy in their English ability and students' self-efficacy in teaching in an international school was given to the 21 participants of this study. The mean of their three TOEFL score got during a semester was also obtained. Pearson correlation test was employed in order to find out the relation between ESL Student Teachers' TOEFL Score, Self-Efficacy on English Comprehension and on Teaching In International School. The correlation of these three variables are written in the following table.

TABLE I. CORRELATION BETWEEN TOEFL SCORE, SELF-EFFICACY ENGLISH COMPREHENSION, AND SELF-EFFICACY TEACHING IN INTERNATIONAL SCHOOL

Relation	Correlation Number
TOEFL Score and Self-Efficacy on English Comprehension	0.68
TOEFL Score and Self-Efficacy on Teaching at International School	0.09
Self-Efficacy English Comprehension and Self-Efficacy on Teaching at International School	-0.19

Table 1 shows that both EC-SEE and EC-SET have positive correlation (0.68 and 0.09, respectively). The positive correlation means that the two variables are affect each other in the same direction. In other words, higher students' English comprehension results in higher students' self-efficacy on their English ability. On the other hand, the SEE-SET has negative correlation (-0.19) which means if self-efficacy English comprehension score had increased, then self-efficacy teaching at an international school will decrease and vice versa [17].

A. Correlation between EC and SEE

The finding suggests that students' English comprehension which is based on the TOEFL scores highly related to students' self-efficacy on their English ability and vice versa. This is shown by the obtained high positive correlation number (0.68). This implies that if the students want to increase their TOEFL Score, they should have a good Self-Efficacy English Comprehension. And if the students have a good Self-Efficacy English Comprehension, then the TOEFL score is high. This statement related to the theory that university students' self-

efficacy is a contributing factor in TOEFL Performance [18].

B. Correlation between EC and SET

The EC-SET shows a very low positive correlation (0.09). this means that students with higher English comprehension has higher self-confidence to teach in International school. The fact that the correlation number is very low, even can be considered as unrelated, suggests that increasing students English comprehension is give insignificant increase on their self-efficacy on teaching at International school.

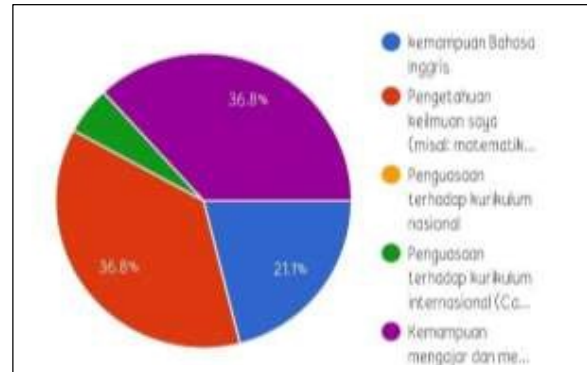
C. Correlation between SEE and SET

The interesting finding is that the SEE and SET not only show no relation, they even show negative correlation even though the number is very small. In glance, this negative correlation can also be identified from the ratio of low and high scorer of SEE and SET. The ratio between low and high category for each item are 13 : 8 for SEE and 9 : 12 for SET. So, the students can be categorized as students with high Self-Efficacy English Comprehension and low category for Self-Efficacy Teaching in International School.

The negative correlation between self-efficacy English comprehension and self-efficacy teaching in International school is resulted by the answers of students who regard their English skills as good (medium to high) but lack confidence in teaching at International School.

Focus group discussion is then conducted to find out the reason for the negative correlation. A student said that *“The higher I regard my English skill, I realized that the international students who is native or someone who has been using English longer than me will for sure has better English than me. This scares me.”* This anxiety is also felt by the other participants. They stated that *“My English is good but still I feel nervous and suddenly blank when talking to native”*; *“I can listen and understand what native says yet I am afraid to respond to it”*. This indicates that even though student regards himself to be able to speak English yet, there is anxiety in communicating directly using English, especially with native.

Furthermore, the ability in which students have the most confidence are Mathematics content knowledge and pedagogical content knowledge. As for English ability is in the third while international curriculum knowledge came last (Picture 1).



Picture 1 Diagram of students' beliefs to teach

The diagram shows that even though students have confidence in their ability of English yet it is still not as good as their knowledge in mathematics content and pedagogy. As for additional question asked regarding that fact, it is found out that the students regard English as a 'problem' so that they believe that their English ability is still not good enough to support them to teach in International school.

The small number of negative correlation is actually can be regarded as nothing. However, if the factors or reasons behind the negative correlation could be removed, it may result in positive correlation [19]. In this case, if the students' anxiety and worries could be minimalized or even be eliminated then we may increase students' confidence in teaching at International school by improving their self-efficacy of English ability.

The implication in learning class is that teachers need to motivate students and ensure that their ability is as good as foreigner teachers or English native students, including their English skills. In addition, habituate students to speak English actively and continuously could eliminate their anxiety in communicating using English [20].

IV. CONCLUSION

A high positive correlation is obtained for the relation between students' English ability with their self-efficacy in English comprehension. While the correlation of students' English comprehension with their self-efficacy in teaching is very low positive correlation. As for the relation between students' self-efficacy in English ability and self-efficacy in teaching results on negative correlation. This is caused by students' anxiety in speaking with the students of International school who mainly a native English. However, once this anxiety is gone, students' self-efficacy in teaching at International school will increase and may have a positive correlation with the self-efficacy on English ability which can be increased by upgrading students' English comprehension and vice versa.

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