Investigating Non-English Pre-Service Teachers’ Mindsets in Learning English as a Foreign Language
Soni Mirizon*

English Education Department, Sriwijaya University, Indonesia
*Corresponding author Email: smirizon@unsri.ac.id

ABSTRACT
The notion of mindset in psychology has been adopted in diverse fields including education. However, there has been limited study that measured mindset in English language teaching area. This study was aimed at investigating non-English major pre-service teachers’ mindset in learning English as a foreign language. An English Language Mindset Survey (ELMS) was used to collect the data. It consisted of six factors with 5 Likert scale responses. It has very good reliability with the Cronbach’s Alpha 0.95. The ELMS was distributed to more than 600 non-English major pre-service teachers in two teacher education programs in Palembang, Indonesia and Khartoum, Sudan. The results show that growth mindset of non-English major pre-service teachers from a teacher education program in Palembang, Indonesia is high when their classmates succeed in the English class (M=4.24) and from a teacher education program in Khartoum, Sudan is high when they felt challenged in learning English (M=4.13). The growth mindset of pre-service teachers from both teacher education programs is low when they met obstacles in terms of meeting difficulty in learning English (M=2.40 and 2.06 respectively). Among factors of ELMS, the students are neutral-minded in other factors.

Keywords: English learning, mindset, non-English major, pre-service teacher.

1. INTRODUCTION
In this globalized world where technology plays crucial role in human being life, foreign language mastery is needed to support their daily or official activities. Yet still not many people find learning a foreign language is their prior need. In academic life, poor foreign language skills might be caused by various factors. Researchers have been studying possible obstacles and challenges second language learners have encountered. Pedagogues have long been involved in offering and practicing innovative strategies to assist teachers and learners in foreign language learning. Psychologists have also been active in searching for predictors of academic achievement such as intelligence, motivation, interest, etc.

Mindset is one of the strong predictors that learners adopt in learning a foreign language. Mindset is a set of attitudes and beliefs about abilities, such as intelligence. In specific, [1] classified mindsets into two different types as fixed and growth mindsets. She also proposes that someone’s achievement and success may be affected by the way he thinks about himself and his life. In other words, mindset can be determinant factor in someone’s success or failure.

One of the mindsets someone may have is a fixed mindset. Someone with this kind of mindset usually wants to appear smart and tend to get rid of challenges [1]. This kind of person thinks that his intelligence cannot be grown or adjusted due to his belief in natural talent. He disbelieves that hard work and practice can make a different. Extremely, he believes that making mistakes is a part of someone’s failure. Ragan [2] points out that someone with a fixed mindset expects simple and effortless life that excludes any struggle. He feels secure in his comfort zone to appear perfect.

On the other hand, someone with a growth mindset values mistakes and accepts challenges due to his desire to learn from experience. Growth mindset person accepts any change and growth which come with mistake or challenge [1]. This kind of person believes that process and effort are crucial and can determine the result. Dweck [1] wrote, “Those with the growth mindset found success in doing their best, in learning and improving. Those with the growth mindset found setbacks motivating. They’re informative. They’re a
wake-up call”. In line with this, Ragan [2] argues that someone learns a lot from experiencing his abilities, although with hardship, and full of challenge. A growth mindset is about how someone is able to achieve at high levels.

In relation to these two kinds of mindsets, everyone has a choice in which mindset to adopt. Ragan [2] claims that most people choose a fixed mindset because the stories and labels addressed to each other. This label is usually taken for granted. In line with this, Yeager and Dweck [3] reported that students do not expect such label to respond spiritedly when meeting challenges. They need a mindset that helps to meet the challenges. A mindset that can bring them to achieve their fullest potential. Dweck [3] proposes that people have a mixture of fixed and growth mindsets. She states that it is necessary to identify what triggers a growth mindset since it allows for higher achievement.

Given the fact that students’ mindset plays role in their academic learning including in learning English as a foreign language which will give impact on their performance and success, it is interesting to investigate non-English major students’ mindset towards learning English whether they have fixed mindset, growth, or may be neutral mindset.

The concept of fixed-and growth-mindset in psychology have been applied in various disciplines including education. However very limited studies have been conducted in applied linguistics, specifically in English language teaching. This current study tries to investigate pre-service teachers’ mindset in learning English as a foreign language at two teacher education programs, the Faculty of Teacher Training and Education, Sriswijaya University (FTTESU), Indonesia and the Faculty of Education, Omdurman Islamic University (FEOIU), Sudan. Since the two faculties are dealing with the teaching of English as a foreign language to non-English major, it is necessary to find out how the pre-service teachers’ mindset. Moreover, the majority of the pre-service teachers from these two countries are Muslims who fundamentally should put priority on Arabic as the language they must learn and master. Knowing their mindset about English learning would provide necessary finding as English is one of the international languages as Arabic is. There may be some similarities and differences in terms of findings. Therefore, it is worth investigating to find out the typical characteristics of each. One could learn from the expertise of the other or vice versa. Therefore, each could benefit from the other.

The study was aimed at investigating non-English major pre-service teachers’ mindset in learning English as a foreign language. Specifically, the aim was to find out the current mindsets of the non-English major pre-service teachers in two teacher education programs in Palembang Indonesia and Khartoum, Sudan toward fixed, neutral, or growth mindset in learning English as a foreign language.

2. METHOD

This article is a part of a study focusing on the pre-service teachers at the two teacher education programs both in Indonesia and Sudan. Specifically, the study investigated the mindset of non-English major pre-service teachers in learning English as a foreign language at FTTESU, Indonesia and FEOIU, Sudan.

The data of this proposed study were obtained through survey questionnaire. Survey was conducted to 511 pre-service teachers of FTTESU and 150 pre-service teachers of FEOIU. An English Language Mindset Survey (EMLS) Questionnaire developed by Puvacharonkul and Wilang [4] was used to collect the data (See Appendix A). This questionnaire has six factors (challenges, obstacles, effort, criticism, success of others, and general viewpoint on own ability) with 5 Likert scale responses (strongly disagree, disagree, neutral, agree, and strongly disagree). It has very good reliability with the Cronbach’s Alpha 0.95. The EMLS questionnaire points of the Likert scale responses were classified into three to suit the mindset conditions—from 1.00-2.33 (fixed mindset), from 2.34-3.66 (neutral mindset), and from 3.67-5.00 (growth mindset). To find out the kinds of mindsets of the non-English major pre-service teachers of both teachers’ education programs in the two countries in learning English as a foreign language the descriptive statistics was used in the data analysis.

3. RESULTS AND DISCUSSION

3.1. Results

Based on the analysis of the data from the EMLS questionnaire, the overall mean (M) for the mindset of the pre-service teacher of FTTESU is 3.30, SD 1.01 (see Table 1). The internal consistency (α) of EMLS calculated using Analysis of Variance yields a high value of 0.95. The following is the results of the means of the six factors of the pre-service teachers of FTTESU.

It is found that four items are in growth mindset condition (items 5, 7, 8, 12). These suggest that pre-service teachers from FTTESU assess themselves positively. When looking at the counterpart items in the same categories of these four items, the self-report results and means also have the tendencies toward the growth mindset condition. In contrast, only the item on Criticisms (item 11) tends toward the fixed mindset condition.
Table 1. Results of the Individual Means of the Six Factors of the Pre-service Teachers, FITTESU

| Factor                      | Factor Details | M    | Mindset Condition |
|-----------------------------|----------------|------|-------------------|
| Challenges                  | Item 4         | 3.13 | Neutral           |
|                             | Item 8         | 4.01 | Growth            |
| Obstacles                   | Item 6         | 2.40 | Neutral           |
|                             | Item 7         | 3.98 | Growth            |
| Effort                      | Item 9         | 2.42 | Neutral           |
|                             | Item 12        | 3.82 | Growth            |
| Criticisms                  | Item 10        | 3.36 | Neutral           |
|                             | Item 11        | 2.74 | Neutral           |
| Success of others           | Item 2         | 3.04 | Neutral           |
|                             | Item 5         | 4.24 | Growth            |
| General Viewpoint on Own Ability | Item 3       | 3.27 | Neutral           |
|                             | Item 1         | 3.23 | Neutral           |

Figure 1. Means of the six factors into fixed, neutral, and growth mindsets of the Pre-service Teachers, FITTESU

Table 2. Results of the Individual Means of the Six Factors of the Pres-service Teachers, FEOIU

| Factor                      | Factor Details | M    | Mindset Condition |
|-----------------------------|----------------|------|-------------------|
| Challenges                  | Item 4         | 3.72 | Growth            |
|                             | Item 8         | 4.41 | Growth            |
| Obstacles                   | Item 6         | 2.06 | Fixed             |
|                             | Item 7         | 4.28 | Growth            |
| Effort                      | Item 9         | 2.60 | Neutral           |
|                             | Item 12        | 4.06 | Growth            |
| Criticisms                  | Item 10        | 2.47 | Neutral           |
|                             | Item 11        | 3.04 | Neutral           |
| Success of others           | Item 2         | 2.78 | Neutral           |
|                             | Item 5         | 3.67 | Growth            |
| General Viewpoint on Own Ability | Item 3       | 3.24 | Neutral           |
|                             | Item 1         | 3.67 | Growth            |

Based on the data Table 2, six items are in growth mindset condition (items 1, 4, 5, 7, 8, 12). These suggest that the students assess themselves positively. When looking at the counterpart items in the same categories of these six items, the self-report results and means also have the tendencies toward the growth mindset condition. In contrast, only the item on Obstacles (item 6) tends toward the fixed mindset condition.

These 12 items’ means are averaged to six factors shown in Figure 1. At the factor level, results show that one-sixth of participants fall into the growth mindset and the other five-sixth into the neutral mindset. They report being growth-minded only on factors of Success of Others. There is no group where the participants report being fixed-minded.

On the other hand, the overall mean (M) for the mindset of the pre-service teachers of FEOIU is 3.34, SD 1.01 (see Table 2). The internal consistency (α) of EMLS calculated using Analysis of Variance yields a high value of 0.95.
When both data are paired it is found that both pre-service teachers of FTTESU and their counterparts of FEOIU in majority have the neutral mindset with a tendency toward the growth mindset. The following Table 3 gives the comparison of the mean score between both groups.

### Table 3. Results of the Individual Means of the Six Factors of the Pre-service Teachers of FTTESU and FEOIU

| Factor                  | Factor Details | Mean FTTESU | Mean FEOIU | Mindset condition       |
|-------------------------|----------------|-------------|------------|-------------------------|
| Challenges              | Item 4         | 3.13        | 3.72       | Neutral/Growth          |
|                         | Item 8         | 4.01        | 4.41       | Growth                  |
| Obstacles               | Item 6         | 2.40        | 2.06       | Neutral/Fixed           |
|                         | Item 7         | 3.98        | 4.28       | Growth                  |
| Effort                  | Item 9         | 2.42        | 2.60       | Neutral                 |
|                         | Item 12        | 3.82        | 4.06       | Growth                  |
| Criticisms              | Item 10        | 3.36        | 2.47       | Neutral                 |
|                         | Item 11        | 2.74        | 3.04       | Neutral                 |
| Success of others       | Item 2         | 3.04        | 2.78       | Neutral                 |
|                         | Item 5         | 4.24        | 3.67       | Growth                  |
| General Viewpoint on Own Ability | Item 3     | 3.27        | 3.24       | Neutral                 |
|                         | Item 1         | 3.23        | 3.67       | Neutral/Growth          |

Data from Table 3 and Figure 3 indicate that of the six factors, pre-service teachers of FTTESU have growth mindset in success of others factor, while their counterparts, pre-service teachers of FEOIU in Challenges factor.

### 3.2. Discussion

As it was mentioned earlier, the objective of this study was to find out the current mindsets of the non-English major pre-service teachers in two teacher education programs FTTESU, Indonesia and FEOIU, Sudan toward fixed, neutral, or growth mindset in learning English as a foreign language. The results of the data analysis revealed that non-English major pre-service teachers from the two teacher education programs in general had growth mindsets on challenges (M=4.01 and 4.04), obstacles (M=3.98 and 4.28), efforts (M=3.82 and 4.06), and success of others (M=4.24 and 3.67) respectively. However, when it is noticed separately pre-service teachers of FTTESU demonstrated more growth mindset on success of others.
fact, while their counterparts, pre-service teachers of FEOIU demonstrated more growth mindset on challenges factor. These results informed that those pre-service teachers from both teacher education programs welcome challenges, obstacles, efforts, and success of others as opportunities to improve themselves in learning English as a foreign language. They had a predisposition to perceive other factors—criticisms and their own ability as beneficial factors to the English learning process. In other words, they saw them as factors to improve rather than to prove their ability in learning English.

The tendency towards growth mindset indicated by the respondents’ response in the questionnaire may be influenced by the reality that most of those pre-service teachers are new to the undergraduate study and were still enthusiastic and optimistic in pursuing knowledge in the university level. They were not really exposed yet to the courses’ challenges. Most of them might have good experience in learning English at their secondary schools and look forward to undergoing similar experience at the undergraduate study. Also a possible account for this tendency for pre-service teachers of FTTESU is that they were inspired when they see other students’ succeed in English language class as shown in item 5 (the highest mean), while their counterparts pre-service teacher of FEOIU did not mind making mistakes in the English language class because they can learn from their mistakes as shown in item 7 (the highest mean).

The results of this study are in line with the findings of previous studies that also measured students’ growth mindsets [5],[6],[7]. The results showed the highest mean of pre-service teachers’ responses from FTTESU (M=4.24) is in item 5 (When other students succeed in our English language classes, I feel inspired), while in the highest mean of pre-service teachers’ responses from FEOIU (M=4.41) is in item 8 (Feeling challenged in learning English makes me want to try harder). The results also showed that the lowest mean of pre-service teachers’ responses from FTTESU and FEOIU (M=2.40 and M2.06 respectively) is in item 6 (I usually quit when something gets difficult in the English language class). The big difference between the highest and lowest means may indicate that the more respondents see their abilities as malleable which means that the greater growth mindset they possess [3].

4. CONCLUSION

In the investigation of the current mindsets of the non-English major pre-service teachers of FTTESU and FEOIU, it was found that most of the respondents have the neutral mindsets in learning English as a foreign language with strong indication to the growth mindsets. Four of the six factors signify growth mindset, while criticism and general viewpoint on own ability factors tend towards the neutral mindset. Some possible explanations have been argued towards this tendency of the respondents’ current mindsets in learning English as a foreign language. This preliminary study recommends that further study is best sought for the more plausible answers in terms of qualitative method as to why the respondents have such a tendency towards growth mindsets in learning English as a foreign language.

REFERENCES

[1] Dweck, C. S. Mindsets and math/science achievement, 2008, Report for the Carnegie Corporation of New York-Institute for Advanced Study Commission on Mathematics and Science Education. Retrieved from http://www.growthmindsetmaths.com/uploads/2/3/7/7/23776169/mindset_and_math_science_achievement-_nov_2013.pdf

[2] Ragan, T., Growth Mindset Introduction: What It Is, How It Works, and Why It Matters, 2016. Retrieved from: https://www.youtube.com/watch?v=75GFzikmROY

[3] Dweck, C. S., Mindset: The new psychology of success. (Updated edition). New York: Random House, 2016.

[4] Puvacharonkul, P. & Wilang, J. D. Exploring the Mindsets of Thai Graduate Students in English Language Learning: A Preliminary Study. ThaiTESOL Conference Proceedings on Harmony in Diversity: ELT in Transcultural Society, 2020, pp. 223-235.

[5] Blackwell, L. S., Trzesniewski, K. H. and Dweck, C. S., Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. Child Development, vol. 78, 2007, PP. 246–263. doi:10.1111/j.1467-8624.2007.00995.x

[6] West, M.R., Kraft, M.A., Finn, A.S., Martin, R.E., Duckworth, A.L., Gabrieli, C.F., & Gabrieli, J.D., Promise and paradox: Measuring students’ non-cognitive skills and the impact of schooling. Educational Evaluation and Policy Analysis, vol 38, no. 1, 2016, pp. 148-170.

[7] Zeng, G., Hou, H., & Peng, K., Effect of growth mindset on school engagement and psychological well-being of Chinese primary and middle school students: the mediating role of resilience. Frontiers in Psychology, vol. 7, no. 1873, 2016.

[8] A. Pnueli, In transition from global to modular temporal reasoning about programs, in: K.R. Apt (Ed.), Logics and Models of Concurrent Systems,
[9] B. Meyer, Applying "Design by Contract", Computer 25(10) (1992) 40–51. DOI: https://doi.org/10.1109/2.161279

[10] S. Bensalem, M. Bogza, A. Legay, T.H. Nguyen, J. Sifakis, R. Yan, Incremental component-based construction and verification using invariants, in: Proceedings of the Conference on Formal Methods in Computer Aided Design (FMCAD), IEEE Press, Piscataway, NJ, 2010, pp. 257–256.

[11] H. Barringer, C.S. Pasareanu, D. Giannakopoulou, Proof rules for automated compositional verification through learning, in Proc. of the 2nd International Workshop on Specification and Verification of Component Based Systems, 2003.

[12] M.G. Bobaru, C.S. Pasareanu, D. Giannakopoulou, Automated assume-guarantee reasoning by abstraction refinement, in: A. Gupta, S. Malik (Eds.), Proceedings of the Computer Aided Verification, Springer, Berlin, Heidelberg, 2008, pp. 135–148. DOI: https://doi.org/10.1007/978-3-540-70545-1_14