TEACHER'S AND STUDENTS' BELIEFS ON THE USE OF JIGSAW LEARNING STRATEGY FOR COOPERATIVE LEARNING IN ENGLISH LANGUAGE TEACHING

SKRIPSI



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in English Language Education Department

by

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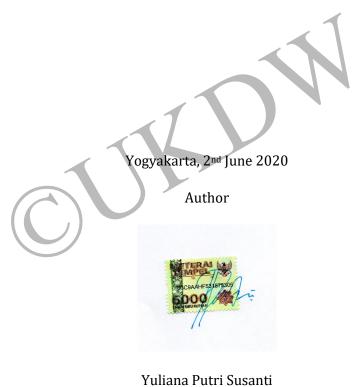
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STATEMENT OF ORIGINALITY

I honestly declare that this *Skripsi* does not contain the work or parts of the work of other people, except those cited in the quotations and the references.



81160013

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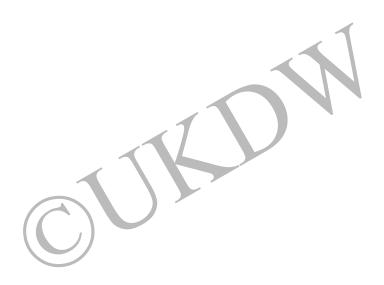
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Abstract

Susanti, Y.P. (2020). Teacher's and students' beliefs on the use of jigsaw learning strategy for cooperative learning in English language teaching. (Unpublished Undergraduate Thesis). Universitas Kristen Duta Wacana, Yogyakarta, Indonesia.

The aim of the study is to investigate teacher's and students' beliefs on the use of jigsaw learning strategy. This study used qualitative methods by conducting an observation and interviews. Online interviews were conducted involving four students and their teacher based on the classroom observation results. The result of the observation was more complex than it appeared as some students mentioned that their participation in jigsaw activity was not the same as how they felt about it. Further, three themes were found from the interviews with the teacher and students about their views on jigsaw learning strategy. Students' previous learning influenced their participation in jigsaw activities, teacher's expectation improved students' participation in jigsaw learning, and jigsaw learning was helpful but its degree of success depended on students' performance. It could be concluded that the views of the teacher and students on the use of jigsaw learning were positive. Based on the results, students' participation of jigsaw learning applied in the classroom was effective. However, they noticed some weaknesses as jigsaw learning was not fully succeeded. The major findings of this study support the use of jigsaw learning strategy in higher education level.

Keywords: teacher's and students' beliefs, jigsaw learning strategy, cooperative learning.

Intisari

Susanti, Y.P. (2020). Teacher's and students' beliefs on the use of jigsaw learning strategy for cooperative learning in English language teaching (Unpublished Undergraduate Thesis). Universitas Kristen Duta Wacana, Yogyakarta, Indonesia.

Tujuan dari penelitian ini menyelidiki sudut pandang dari seorang dosen dan mahasiswa mengenai strategy jigsaw learning untuk cooperative learning di sebuah universitas di Indonesia. Penelitian ini menggunakan metode kualitatif dengan melakukan observasi dan wawancara. Wawancara dilakukan secara online dengan dosen kelas dan empat mahasiswa yang terpilih berdasarkan hasil observasi kelas. Hasil dari obervasi kelas menunjukkan bahwa mahasiswa tidak sepenuhnya berpartisipasi seperti yang terlihat. Kemudian, hasil dari wawancara bersama dengan dosen dan mahasiswa menghasilkan tiga tema mengenai sudut pandang dari guru dan mahasiswa tentang penerapan jigsaw learning di kelas. Pengalaman pembelajaran siswa sebelumnya mempengaruhi partisipasi mereka dalam kegiatan jigsaw, harapan guru meningkatkan partisipasi siswa dalam jigsaw learning, dan jigsaw learning sangat membantu tetapi tingkat keberhasilannya tergantung pada kinerja siswa. Dapat disimpulkan bahwa pandangan guru dan siswa tentang penggunaan jigsaw learning bervariasi. Namun, mahasiswa juga menemukan beberapa kelemahan jigsaw learning. Secara menyeluruh, penelitian ini menunjukkan bahwa penggunaan jigsaw learning di mendukung pembelajaran di perguruan tinggi.

Kata Kunci: sudut pandang, jigsaw learning, strategy, 'cooperative learning'

CHAPTER I

INTRODUCTION

There are four subheadings that will be discussed in this chapter: research background, research questions, research objectives, and research benefits.

1. Research background

Teaching English as a second language is challenging for some teachers. Every teacher has their own beliefs on what strategy that they use in order to help their students in learning English (Biesta et al., 2015). Jigsaw learning strategy, specifically, is one of the learning strategies that is used to build a cooperative learning in order to learn English as a foreign language. According to Mengduo and Xiaoling (2010), there are five principles for jigsaw strategy such as: positive interdependence, face-to-face promote interaction, individual and group accountability, interpersonal skills, and group processing. In other words, the use of jigsaw learning strategy is requiring students to be involved with each other that also indicates students' collaboration in the classroom. Mengduo and Xiaoling (2010), stated that the use of jigsaw learning strategy helps students to develop their teamwork skill which can be one of strategies to build a cooperative learning in the classroom activity. In this era, building a cooperative learning in the classroom is very important especially in English language teaching (Altun, 2015).

There are four skills in C's of 21st century learning such as critical thinking, creativity, collaboration, and communication. Cooperative learning constitutes the "collaborative" part of 21st century learning (Altun, 2015). Students nowadays are likely being unhappy to have a group work (Felder & Brent, 2001). However, in order to prepare them to face 21st century era, they have to be ready with cooperative learning which include putting them in a group work. According to jigsaw learning strategy procedures by Mengduo and Xiaoling (2010) that includes group processes and face-to-face promotive interaction students are experiencing cooperative learning. It is shown by cooperative learning activity that requires students to communicate in group work (Altun, 2015). Especially in learning English, students might have different interest as they have different background knowledge and capability of certain subject (Heddy et al., 2016). Thus, having a group work activity

in jigsaw learning students can share and collaborate with other students that have different interest. This phenomenon also gives impact on the teachers' beliefs toward the use of jigsaw learning strategy in English language teaching. By knowing students' interests, teachers might have their own views on how they will handle the students. Borg and Al-Busaidi (2011) stated that teachers' views also give impact on the way they apply a certain strategy in teaching.

Furthermore, there are also some studies about the implementation of jigsaw learning strategy in other countries (e.g. Dansereau, 2014; Doymus, 2008; Raymond & Choon, 2017). Doymus' (2008) study investigating 36 undergraduate students in Turkey, which found students' higher achievement from jigsaw learning. Mengduo and Xiaoling's (2010) study in the past few decades in China found that the implementation of jigsaw has significantly improved students' performance. A study about teachers' beliefs also has been conducted by Phipps and Borg (2009) in Turkey. They found out that teachers' beliefs have to be included to see whether the classroom builds a good atmosphere in engaging students' performance or not. Therefore, these issues about teachers' beliefs and jigsaw learning strategy showed positives impact toward students' performance. In other words, both studies about teachers' beliefs and jigsaw learning strategy showed that these issues are important. Thus, conducting study about teachers' beliefs on the use of jigsaw learning strategy for cooperative learning is important.

Furthermore, this research was conducted in an English education department major in Indonesia context. Moreover, studies about jigsaw learning strategy in Indonesia are not totally new (e.g. Indriwati, Susilo, & Hermawan, 2019; Marhamah & Mulyadi, 2013; Suendarti, 2017). These studies participants are from various level of education. Marhamah and Mulyadi (2013) for example, conducted a study about the effect of jigsaw learning strategy as cooperative instruction involving 52 second-year undergraduates' students of Islamic education department in university of Jakarta. Next, Suendarti's (2017) conducted study on jigsaw learning model on the ability of resolution natural science involving 60 students of junior high school grade VII. Therefore, what makes this study different is because the students' participants are from English language education major. As jigsaw learning considered as

collaborative learning (Altun, 2015), it may be important to see their views toward the implementation of jigsaw learning strategy as they would be a future teacher.

As the purpose of the study is to gain deeper perspective of the teacher's and students' beliefs on the use of jigsaw learning strategy, the use of qualitative methods is highly recommended (Borg & Al-Busaidi, 2011; Phipps & Borg, 2009; Richards et al., 2001). However, some studies especially in Indonesia mentioned previously used quantitative methods. To the best of my knowledge, this study is the first study in Indonesia that will be investigating teacher's and students' beliefs used qualitative methods. Therefore, it may be important to explore participants' experiences in depth through their viewpoints. By using qualitative method, the study tends to gain more participants' opinion, views and background knowledge about jigsaw learning strategy applied in the classroom.

2. Research questions

Considering the rationales of the research stated previously the following research questions are addressed in the present study:

- a. To what extent do university teacher use jigsaw learning strategy in the classroom?
- b. To what extent is students' participation in jigsaw learning activity in the classroom?
- c. What are teacher's and students' views on the use of jigsaw learning strategy for cooperative learning?

3. Research objectives

The study intends to investigate:

- a. To what extent university teacher uses jigsaw learning strategy in the classroom.
- b. To what extent students participate in the jigsaw learning activity.
- c. Teacher's and students' views on the use of jigsaw learning strategy for cooperative learning in English language teaching.

4. Research benefits

This study, hopefully, can be beneficial for teachers and researchers:

a. Teachers

As this study will be presenting teacher's and students' viewpoints on jigsaw learning, teachers may use the results to evaluate their use of jigsaw learning in the classroom. The results may give reference to things that need to improve and also how to make the instruction more effective.

b. Researchers

Firstly, as this study is the first study on teacher's and students' beliefs on the use of jigsaw learning that uses qualitative methods, it could introduce researchers the strength of qualitative methods. Secondly, to the best of my knowledge, this study is the first study that is investigating about teachers and students of English language education department beliefs on the use of jigsaw learning in Indonesia. Thus, there is a possibility that the results of the study may open a broader approach to research questions.

CHAPTER V

CONCLUSION

1. Summary

Based on the purpose of the study, qualitative methods were used by conducting observation and interviews. The observation result was quite complex as it showed different views with the result of interviews. Students were considered as active learners in the observation, while during the interviews they stated that they were not as active as they seem. Further, three themes were found from the interviews using thematic analysis such as participants' previous learning experiences as passive learners reduced the quality of jigsaw learning activities, teacher' expectation improved students' participation in jigsaw learning activities, and the implementation of jigsaw was helpful but its degree of success depended on individual student's performance.

Students' previous learning as a passive learner affecting their quality of participating jigsaw learning because in jigsaw, they were required to be independent learners by reading the material at home. However, the second theme stated that teacher' expectation improved their participation in jigsaw learning. Students admitted that by knowing the expectation, they got the ideas of what skills they were supposed to develop during the course. Lastly, as the degree of success in jigsaw learning depended on every student performance, it could be suggested that each student performs well in jigsaw learning activities.

2. Implications and contributions

With regard to the present study's findings which overall suggested an evaluation on jigsaw learning strategy, teachers may asses the use of jigsaw learning. Based on the result of interview with the students that they did not use the time well for discussion, teacher may need to evaluate their use of jigsaw learning strategy. The result showed that teacher and students agreed the implementation of jigsaw in classroom had some weaknesses, however, it was still good to be applied as students need to familiarize themselves to be independent learners. In regard to the present study's findings which pointed out the good side and weaknesses of jigsaw learning

strategy, teachers may consider their use of a certain learning strategy. They may combine another learning technique to minimize the weaknesses.

As this study firstly used qualitative method in conducting research on teacher's and students' beliefs on the use of jigsaw learning strategy in ELT, the results may be important as references for further study in the field. The results may introduce the strength of qualitative methods in teachers' and students' beliefs field study. Primarily investigated views on jigsaw learning by English language education students, the results may open a broader approach to research questions.

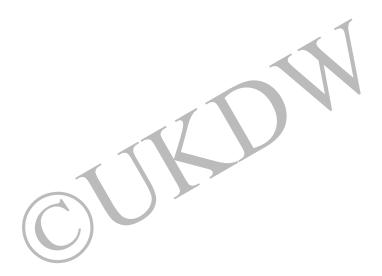
3. Limitations

As the study finished there are several limitations found. Because I used qualitative, despite its ability to gain deeper information, the result of the study cannot be generalized. What was found in this study might not be the same in the other place even though with the same context and topic. Next, informed consent form was not distributed to students as the participants of this study. It was because interviews were done online. The reason why the interviews were conducted online because the interviewer and interviewees stayed in distance locations. Thus, the suggestion for future study always distributes an informed consent form for all participants to implement ethical considerations. In addition, because the interviews were conducted online, there were some obstacles in it such as unstable signal, unclear voice, and connection problem. Thus, the suggestion for future study is conducting face-to-face interviews will be better. Lastly, as this study is the first study about teacher's and students' beliefs on the use of jigsaw learning in English language teaching context, it was difficult to find the literature review studies. Therefore, some sources were not from English language teaching context.

4. Future studies

Furthermore, there are several suggestions for future studies in the field of jigsaw learning strategy. First, as students' previous learning experiences as passive learners reduced the quality of jigsaw learning strategy, researchers may further investigate how can students' previous learning experiences affect learning strategy. Qualitative methods are suggested to gain deeper information because every student might have different background knowledge. Next, it was found that teacher's expectation

improved students' participation in jigsaw learning activities. However, the analysis on teacher expectation may not be depth as it was not the focus of the study. Thus, conducting further study on teachers' expectation might be recommend.



REFERENCES

- Altun, S. (2015). The effect of cooperative learning on students' achievement and views on the science and technology course. *International Electronic Journal of Elementary Education*, 7(3), 451–468.
- Austin, V. (2001). Teachers' beliefs about co-teaching. *Remidial and Special Education*, 22(4), 245–255.
- Biesta, G., Priestley, M., & Robinson, S. (2015). The role of beliefs in teacher agency. *Teachers and Teaching: Theory and Practice*, 21(6), 624–640. https://doi.org/10.1080/13540602.2015.1044325
- Borg, S., & Al-Busaidi, S. (2011). Teachers' beliefs and practices regarding learner autonomy. *ELT Journal*, 66(3), 283–292. https://doi.org/10.1093/elt/ccr065
- Brownlee, J., Purdie, N., & Boulton-Lewis, G. (2001). Changing epistemological beliefs in pre-service teacher education students. *Teaching in Higher Education*, 6(2), 247–268. https://doi.org/10.1080/13562510120045221
- Burke, A. (2011). Group work: How to use groups effectively. *Journal of Effective Teaching*, *11*(2), 87–95.
- Carter, N., Bryant-Lukosius, D., Dicenso, A., Blythe, J., & Neville, A. J. (2014). The use of triangulation in qualitative research. *Oncology Nursing Forum*, *41*(5), 545–547. https://doi.org/10.1188/14.0NF.545-547
- Chamberlin, M., & Powers, R. (2010). The promise of differentiated instruction for enhancing the mathematical understandings of college students. *Teaching Mathematics and Its Applications*, 29(3), 113–139. https://doi.org/10.1093/teamat/hrq006
- Colbeck, C. L., Campbell, S. E., & Bjorklund, S. A. (2000). Grouping in the dark. *The Journal of Higher Education*, 71(1), 60–83. https://doi.org/10.1080/00221546.2000.11780816
- Creswell, J. W., Hanson, W. E., Clark Plano, V. L., & Morales, A. (2007). Qualitative Research Designs: Selection and Implementation. *The Counseling Psychologist*, *35*(2), 236–264. https://doi.org/10.1177/0011000006287390

- Cross, D. I. (2009). Alignment, cohesion, and change: Examining mathematics teachers' belief structures and their influence on instructional practices. *Journal of Mathematics Teacher Education*, 12(5), 325–346. https://doi.org/10.1007/s10857-009-9120-5
- Dansereau, D. F. (2014). Cooperative Learning Strategies. In *Learning and Study Strategies*. ACADEMIC PRESS, INC. https://doi.org/10.1016/b978-0-12-742460-6.50013-x
- Davies, W. M. (2009). Groupwork as a form of assessment: Common problems and recommended solutions. *Higher Education*, *58*(4), 563–584. https://doi.org/10.1007/s10734-009-9216-y
- Decuyper, S., Dochy, F., & Van den Bossche, P. (2010). Grasping the dynamic complexity of team learning: An integrative model for effective team learning in organisations. *Educational Research Review*, 5(2), 111–133. https://doi.org/10.1016/j.edurev.2010.02.002
- Diab, R. L. (2005). Teachers' and students' beliefs about responding to ESL writing: A case study. *TESL Canada Journal*, *23*(1), 28. https://doi.org/10.18806/tesl.v23i1.76
- Doody, O., & Noonan, M. (2013). Preparing and conducting interviews to collect data.

 The University of Sheffield (Alma). *The University of Shefield*, *2013*, 15–20.
- Doymus, K. (2008). Research in science & technological education teaching chemical bonding through jigsaw cooperative learning. October 2014, 37–41. https://doi.org/10.1080/02635140701847470
- Er, H. (2017). The impact of teaching the subjects under "Science in Time" unit in the social studies class in the 7th grade using jigsaw technique on the academic success of the students. *Universal Journal of Educational Research*, *5*(5), 838–847. https://doi.org/10.13189/ujer.2017.050516
- Felder, R. M., & Brent, R. (2001). Effective strategies for cooperative learning. In *Learning and Study Strategies*. ACADEMIC PRESS, INC. https://doi.org/10.1016/b978-0-12-742460-6.50013-x

- Foldnes, N. (2016). The flipped classroom and cooperative learning: Evidence from a randomised experiment. 17, 39–49. https://doi.org/10.1177/1469787415616726
- Hammarberg, K., Kirkman, M., & de Lacey, S. (2016). Qualitative research methods: when to use them and how to judge them. *Human Reproduction*, *0*, 1–4. https://doi.org/10.1093/humrep/dev334
- Haryono. (2015). Learning achievement improvement efforts course learn and learning using the jigsaw method and card media in STKIP PGRI Ngawi 2014/2015 Academic Year. *Journal of Education and Practice*, 6(30), 94–102. http://search.proquest.com/docview/1773226302?accountid=13963
- Heddy, B. C., Sinatra, G. M., Seli, H., Taasoobshirazi, G., & Mukhopadhyay, A. (2016).
 Making learning meaningful: facilitating interest development and transfer in atrisk college students. *Educational Psychology*, 37(5), 565–581.
 https://doi.org/10.1080/01443410.2016.1150420
- Indriwati, S. E., Susilo, H., & Hermawan, I. M. S. (2019). Improving students' motivation and collaborative skills through Remap Jigsaw learning combined with modelling activities. *Jurnal Pendidikan Biologi Indonesia*, *5*(2), 177–184. https://doi.org/10.22219/jpbi.v5i2.7888
- Javadi, M., & Zarea, K. (2016). Understanding thematic analysis and its pitfall. *Journal of Client Care*, 1(1). https://doi.org/10.15412/j.jcc.02010107
- Kern, R. G. (1995). Students' and teachers' beliefs about language learning. *Foreign Language Annals*, 28(1), 71–92. https://doi.org/10.1111/j.1944-9720.1995.tb00770.x
- Kessler, G., & Bikowski, D. (2010). Developing Collaborative Autonomous Learning
 Abilities in Computer Mediated Language Learning: Attention to Meaning Among
 Students in Wiki Space. 2010, 41–58.
 https://doi.org/10.1080/09588220903467335
- Kirby, J. . (1988). *Style, strategy, and skill in reading*. 229–230.
- Lui, A. M., & Bonner, S. M. (2016). Preservice and inservice teachers' knowledge,

- beliefs, and instructional planning in primary school mathematics. *Teaching and Teacher Education*, *56*, 1–13. https://doi.org/10.1016/j.tate.2016.01.015
- Marhamah, M., & Mulyadi, M. (2013). Jigsaw cooperative learning: A viable teaching-learning strategy?. *Journal of Educational and Social Research*, *3*(7), 710–715. https://doi.org/10.5901/jesr.2013.v3n7p710
- Mayer, R. E. (1988). Learning strategies: An overview. *Learning and Study Strategies*. ACADEMIC PRESS, INC. https://doi.org/10.1016/b978-0-12-742460-6.50008-6
- Mengduo, Q., & Xiaoling, J. (2010). Jigsaw strategy as a cooperative learning technique: focusing on the language learners. *Chinese Journal of Applied Linguistics*, 33(4), 113–125. http://www.celea.org.cn/teic/92/10120608.pdf
- Nelson, J. A., Bustamante, R. M., Wilson, E. D., & Onwuegbuzie, A. J. (2008). The school-wide cultural competence observation checklist for school counselors: An exploratory factor analysis. *Professional School Counseling*, 11(4), 2156759X0801100. https://doi.org/10.1177/2156759x0801100401
- Nolen, S. B., & Haladyna, T. M. (1990). Personal and environmental influences on students' beliefs about effective study strategies. *Contemporary Educational Psychology*, *15*(2), 116–130. https://doi.org/10.1016/0361-476X(90)90011-0
- O'Donovan, B. (2017). How student beliefs about knowledge and knowing influence their satisfaction with assessment and feedback. *Higher Education*, 74(4), 617–633. https://doi.org/10.1007/s10734-016-0068-y
- O'Leary, N., Barber, A., & Keane, H. (2018). Physical education undergraduate students' perceptions of their learning using the jigsaw learning method. *European Physical Education Review*, 1–18. https://doi.org/10.1177/1356336x18767302
- Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307–332. https://doi.org/10.3102/00346543062003307
- Phipps, S., & Borg, S. (2009). Exploring tensions between teachers' grammar teaching beliefs and practices. *System*, *37*(3), 380–390.

- https://doi.org/10.1016/j.system.2009.03.002
- Purnama, S. ., Syahputra, E., & Surya, E. (2018). An analysis of spatial ability and self-efficacy of students in cooperative learning by using jigsaw at smas muhammadiyah 8 kisaran. *American Journal of Educational Research*, 6(8), 1238–1244. https://doi.org/10.12691/education-6-8-25
- Rahman, R. (2015). Comparison of telephone and in-person interviews for data collection in qualitative human research. *Interdisciplinary Undergraduate Research Journal*, 1(1), 10–13. https://journals.uic.edu/ojs/index.php/IURJ/article/view/5428
- Raymond, C. Y., & Choon, T. (2017). Understanding Asian students learning styles, cultural influence and learning strategies. *Journal of Education & Social Policy*, 7(1), 194–210. http://jespnet.com/journals/Vol_4_No_1_March_2017/23.pdf
- Richards, J., Gallo, P., & Renandya, W. (2001). Exploring teachers' beliefs and the processes of change. *The PAC Journal*, 1(1986), 47–48. http://aaboori.mshdiau.ac.ir/FavouriteSubjects/exploring-teacher-change.pdf
- Rigney, J. W. (1978). Learning strategies: A theoretical perspective. *Learning Strategies*. https://doi.org/10.1016/b978-0-12-526650-5.50012-5
- Sabbah, S. (2016). The effect of jigsaw strategy on ESL students' reading achievement.

 Arab World English Journal, 7(1), 445–458.

 https://doi.org/10.2139/ssrn.2804034
- Samueeowicz, K., & Bain, J. D. (2001). Revisiting academics' beliefs about teaching and learning. *Higher Education*, 41(3), 299–325. https://doi.org/10.1023/A:1004130031247
- Sargeant, J. (2012). Qualitative research part II: participants, analysis, and quality assurance. *Journal of Graduate Medical Education*, 4(1), 1–3. https://doi.org/10.4300/jgme-d-11-00307.1
- Simsek, U., & Baydar, A. (2019). Impacts of jigsaw and teams-games-tournaments (TGT) on socual studies preservice teachers' epistemological beliefs. International Online Journal of Education and Teaching, 6, 405–414.

- Stutchbury, K., & Fox, A. (2009). Ethics in educational research: Introducing a methodological tool for effective ethical analysis. *Cambridge Journal of Education*, *39*(4), 489–504. https://doi.org/10.1080/03057640903354396
- Subekti, A. (2019). A study of introduction to college English teachers' beliefs in their teaching roles. *International Journal of Indonesian Education and Teaching*, *3*(1), 21–40. https://doi.org/https://doi.org/10.24071/ijiet.2019.030103
- Suendarti, M. (2017). The influence of jigsaw learning model on the ability of resolution natural science of middle east junior high school students Indonesia. *International Journal of Environmental & Science Education*, *12*(7), 1617–1622. http://www.ijese.net/makale/1927
- Sulisworo, D., & Toifur, M. (2016). The role of mobile learning on the learning environment shifting at high school in Indonesia. *International Journal of Mobile Learning and Organisation*, 10(3), 159–170. https://doi.org/10.1504/IJMLO.2016.077864
- Szalita, A. B., & Peni Azek, J. (1977). Participant observation. *Contemporary Psychoanalysis*, 13(3), 377–380. https://doi.org/10.1080/00107530.1977.10745498
- Tang, M., & Tian, J. (2015). Associations between Chinese EFL graduate students' beliefs and language learning strategies. *International Journal of Bilingual Education and Bilingualism*, 18(2), 131–152. https://doi.org/10.1080/13670050.2014.882882
- Thanh, N. ., & Thanh, T. T. . (2015). The interconnection between interpretivist paradigm and qualitative mmethods in education. *American Journal of Educational Science Vol.*, 1(2), 24–27. https://doi.org/10.1111/1467-9299.00177
- Tharayil, S., Borrego, M., Prince, M., Nguyen, K. A., Shekhar, P., Finelli, C. J., & Waters, C. (2018). Strategies to mitigate student resistance to active learning. *International Journal of STEM Education*, 5(1), 1–16. https://doi.org/10.1186/s40594-018-0102-y
- Uztosun, M. S. (2011). A qualitative study into English language teachers' and

- students' beliefs and practices in Turkey. *The International Journal of Research in Teacher Education*, 1(2), 16–34.
- Wong, L. L. C., & Nunan, D. (2011). The learning styles and strategies of effective language learners. *System*, *39*(2), 144–163. https://doi.org/10.1016/j.system.2011.05.004
- Zhang, Z., E., & C., Deng, J., Schuller, B., et al. (2015). Cooperative learning and its application to emotion recognition from speech. *IEEE/ACM Transactions on Audio Speech and Language Processing*, 23(1), 115–126. https://doi.org/10.1109/TASLP.2014.2375558

