MENDIDIK: Jurnal Kajian Pendidikan dan Pengajaran

http://jm.ejournal.id

Techniques Self-Regulated Learning To Improve Self-Regulated Learning and Students' Learning Independence in Online Learning Situations Covid The *-19*

Muhamad Khoirudin[1]

[1,2,3]Universitas Negeri Surabaya

ARTICLE INFO

ABSTRACT

Ability Self-regulated learning and independent learning are needed for humans throughout their life. However, the students of SMP Sunan Ampel Porong do not yet have optimal learning independence. the study aims to improve self-regulated learning and increase the learning independence of Sunan Ampel Porong Junior High School students in online learning situations during the Covid-19, through the application of Self-Regulated Learning. This research uses experimental research, the method used is quasi-experimental research design with non-equivalent control group design. The research sample consisted of sixty-nine students of SMP Sunan Ampel Porong with two classes, the experimental class, and the control class. Data on self-regulated learning and learning independence of students were collected using observation, interviews, questionnaires, and document scrutiny techniques guidance instruments self-regulated learning. Furthermore, the data were analyzed quantitatively. Based on the post-test t-test of the ability Self Regulated Learning, it is known that the average learning outcomes of the experimental class are greater than that of the control class. From the table, it is known that the value of t count > t table. achievement scores' self-regulated learning in the experimental class and the control class. While the post-test t-test of learning independence of the experimental class is known to have an average learning outcome of the experimental class is greater than that of the control class. From the table, it is known that the value of t count > t table. It can be concluded that there are significant differences in the scores of students' independent learning outcomes in the experimental class and the control class.

Keywords:
Self Regulated LearningAbility Self, Independence

[1]Corresponding author's address: Universitas Negeri Surabaya
e-mail: ukhoir95@gmail.com

INTRODUCTION

Independence is one aspect of personality that affects the success of one's life, students, will continue to learn to be independent in dealing with various situations in the environment so that individuals will eventually be able to think and act alone. Elfira (2013) states that self-reliance is a personal condition that has been able to develop human five for the establishment of human nature in itself in the frame of the human dimension. the ability of *self-regulated learning* must also be possessed by students in learning, *self-regulated learning* is the ability of how a person becomes a manager of himself in his learning activities. according to Pérez-Álvarez et al., (2018), *Self-regulated learning* in students is the ability to develop independent learning strategies in students. Contemporary learning principles in education support the belief that the learning process is not only concerned with teaching materials to students but also the process of how to learn teaching materials, and how learning should involve self-regulation (*self-regulation*) Magno (2015). Learning independence is indeed very necessary in improving student achievement, especially with the implementation of the 2013 curriculum which requires students to play an active role in learning. Researchers decided to instill learning independence in students, and this was strengthened in the Law of the Republic of Indonesia Number 20 of 2003 Article 3 which emphasizes that it aims to develop the potential of students to become human beings who believe and fear God Almighty, have a noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens. From this principle, it can be understood that teaching students about how they should learn, more specifically, teaching students about self-regulation so that they can develop self-directed learning behaviors (*self-regulation learning*) and become successful students in activities. learning is an important thing to do in school. The teaching and learning process is integration between learning activities by students and teaching by teachers. This means that students and teachers have their respective roles and functions. In this process, there is a transfer of knowledge from teachers to students. Ideally, students can accept any knowledge conveyed by the teacher. However, the reality is not that easy. Several factors influence the teaching and learning process, for example learning media, teacher methods in teaching, classroom conditions, and others. *Self-regulated learning* is one of the counselors' assistance or Guidance and counseling teachers to help organize the learning process through guidance and counseling service activities in the fields of personal development, social skills, learning abilities, and career development in educational units. Al-Rawahi & Al-balushi (2015) Define *self-regulated learning* as a condition in which individuals who learn as controllers of independent learning activities, monitor motivation, and academic goals, manage human and material resources, and become behavior in decision-making processes and implementers in the learning process.

Relevant research related to problems on this topic, namely Indira (2020) aims to test the effectiveness of *self-regulated learning* in online learning to improve learning mastery during the Covid-19 pandemic. The data obtained from the subjects before and after receiving the training also supports clarifying the acceptance of the hypothesis in this study. Before receiving the *self-regulated learning* the subjects showed that there were several problems experienced in their learning completeness, namely having motivation/lazy to study, lacking self-confidence, not being able to divide study time, feeling that they did not have time to study because of other activities, forgot to do assignments, often late in collecting assignments, often late for class. From these data, it shows that before receiving training, the subject still does not or lacks the ability to regulate himself in learning so that his learning completeness is classified as low. training *self-regulated learning*, subjects were able to apply steps to improve their learning mastery with self-regulation strategies. Subjects become active in managing time, between study time and other activities, can prepare themselves before the material is given, do assignments correctly and complete them on time, and are more active in learning so that their learning mastery also increases. Another study by Hidayah (2019) The results of a survey conducted at SMKN 1 Surabaya, according to a teacher who teaches basic graphic design subjects in class X MM stated that the learning process uses

conventional models with lectures sometimes using problem-based learning. So that learning is centered on the teacher and students become passive, not a few students will feel bored and prefer to talk to their friends rather than listen to the teacher's explanation so that the teacher becomes difficult to condition the class. This classroom atmosphere has an impact on *self-regulated* learning in student learning, namely the desire to learn, have self-confidence, self-management, self-control, and self-discipline in learning. Data analysis of the results of the self-regulated learning questionnaire of students has increased from before being given treatment 18 students classified as high learning independence and 12 students classified as moderate learning independence and the percentage results after being given treatment 22 students classified as high independence and 8 students classified as moderate independence.

METHODS

This research was conducted through a quantitative approach with a quasi-experimental design. The quasi-experimental design used is a non-equivalent control group design. Operationally, the experiment with the *non-equivalent control group design* was carried out by following the step-by-step model of the nonequivalent control group design experiment. The population in this study were students of SMP Sunan Ampel Kesambi Porong. The study decided to use 69 samples with a *non-random. purposive sampling method* Sampling took with a tolerable error of 10%, and the determination of the sample size of respondents using the Slovin formula.

DISCUSSION

Self-regulated learning is a concept about how a person becomes his manager in his learning activities. Self-regulated learning is an ability where a person can activate and encourage thinking (cognition), feelings (affection), and actions (actions) that have been planned systematically and repeatedly oriented to achieve a goal in learning Zimmerman (2011). Based on Bruin (2020), argues the challenges of the theory of *self-regulated learning*. First, to improve our understanding of how learners monitor their learning, taking a cognitive load perspective to examine how learners incorporate mental effort into their monitoring process would be very informative. Second, to improve our understanding of the design of learning tasks and learning environments about the cognitive load experienced by learners, a self-regulatory perspective that focuses on how learners manage mental effort would be valuable. Third, to enhance the development of declarative knowledge and domain-specific skills, an integrated cognitive load and self-learning perspective that investigates the cognitive demands of self-directed learning and how to optimize cognitive load during self-directed learning can be of great use. In the research of Putri et al. (2020) to increase the ability of self-regulated learning, self-regulated learning can be used quite effectively, it can be seen from the data from the implementation of self-regulated learning that students have increased from the amount of N-gain. Based on the descriptive analysis, the overall self-regulated learning ability increased. Meanwhile, in this study, applying self-regulated learning techniques to improve self-regulated learning abilities during the COVID-19 pandemic. It can be seen that the results of self-regulated learning abilities before being treated with self-regulated learning abilities of students are known to have an average pre-test of 59.57 after being treated with self-defense techniques. the regulated learning ability of students can be seen from the post-test 82.31 there is an increase of 22.74. So it can be stated that there is a significant increase in the score of the results of the self-regulated learning ability of the experimental group students or those given the self-regulated learning technique.

According to Lustyanti (2016) learning independence is a process, method, and philosophy of education in which students gain knowledge from teachers and develop the ability to investigate and evaluate with their efforts. According to Biondi et al. (2015) autonomy can help them think for themselves and pursue independent learning, competency is a key to confident decision-making

and leadership. Individuals who receive autonomy support (e.g., sensitivity to their perspective, recognition of their feelings, provision of choice, minimization of control) from important authority figures are more motivated to pursue their goals, are more satisfied with their work and life, and ultimately become higher achievers than individuals. being coerced or coerced into pursuing someone else's goals. In Hidayah's research (2019) to increase learning independence, using self-regulated learning is quite effective, can be seen from the data from the implementation of self-regulated learning that students experienced an increase from before being given treatment, which was 69.4%, 18 students classified as high learning independence and 12 students classified as high learning independence. learning independence was moderate and the percentage result after being given treatment was 77%, 22 students were classified as high independent, and 8 students were classified as moderate independent. Meanwhile, this study applies self-regulated learning techniques to increase learning independence during the covid 19 pandemic. It can be seen that the results of learning independence before being given treatment for students' independence are known to have an average pre-test of 60.83 after being given treatment with self-regulated learning techniques. post-test 82.3143 there is an increase of 21.48 so it can be stated that there is a significant increase in the score of independent learning outcomes of students in the experimental group or those given *self-regulated learning techniques.*

Comparative Research Results of *Self-regulated Learning* Techniques and Conventional Techniques

Contemporary learning principles in education support the belief that the learning process is not only concerned with teaching materials to students but also the process of how to learn teaching materials, and how learning should involve self-regulation.) Magno (2015). From this principle, it can be understood that teaching students about how they should learn, more specifically, teaching students about self-regulation so that they can develop self-directed learning behavior (self-regulation learning) and become successful students in activities. learning is an important thing to do in school. According to Cheng (2011) In the process of self-regulated learning, students monitor and adjust their learning strategies. Monitoring activities include checking learning content, assessing learning difficulties, assessing progress, and predicting learning outcomes. Since self-learning is a multidimensional activity involving individual cognition, emotion, action, and environment, teachers need to advise students on self-assessment, goal setting, learning strategies, motivation, and monitoring. Self-regulated learning is understood as a learning process in which students use self-regulation skills, such as self-assessment, self-direction, control, and adjustment, to acquire knowledge. Students who can do self-study have a clear idea of how and why certain self-regulatory strategies should be used. They are active learners in terms of metacognition, motivation, and action control. For example, they focus on improving their learning performance, using self-regulation strategies, providing feedback to themselves, and improving their learning based on that feedback. As a result, they change their sense of self or their learning strategies. In Indira's research (2020) the application of self-regulated learning strategies is quite effective, Indira's research (2020) aims to test the effectiveness of students' self-regulated learning in online learning during the Covid-19 pandemic. Based on the determination of (error rate) of 5% is 0.05, then 0.000 <0.05. The results of data analysis prove that Ho is rejected and Ha is accepted. In other words, the application of self-regulated learning is effective in online learning during the Covid-19 pandemic at SMA Negeri 1 Lawang. Meanwhile, in this study, we tested the effectiveness of self-regulated learning techniques to improve self-regulated learning and learning independence in the Covid-19 pandemic situation. Based on the F test, it can be seen that the calculated F is 0.011 with a probability of 0.915. Because the probability value is > 0.05, then H0 is accepted or the two population variances are the same (homogeneous). Furthermore, based on the control class t-test, it can be seen that count is with a probability of 0.529, therefore the probability is 0.529 > 0.05, then Ho is accepted and the experimental class shows that count is with a probability of 0.000. Because the probability is 0.000 < 0.05, then Ho is rejected, it can be concluded that the application of self-

regulated learning techniques and conventional techniques is different. Thus, it can be concluded that the use of self-regulated learning techniques is quite effective in increasing self-regulated learning abilities and learning independence. Meanwhile, the use of conventional methods is not effective in increasing the ability of self-regulated learning and independent learning.

CONCLUSION

The level of effectiveness of Self-Regulated Learning Techniques to improve Self-Regulated Learning abilities and learning independence of students is in the high category. By providing appropriate teaching methods, it can be useful to identify so that each student can become an independent learner or self-regulated learning. Educators are expected to be able to facilitate students' learning needs physically and psychologically to support their academic performance at school so that the self-regulated learning abilities experienced by students can be managed properly. For further research, researchers should add other variables to enrich the results of research in the field studied.

REFERENCES

Abu-Alruz, J., Khasawneh, S., Al-Zawahreh, A., & Bataineh, OT (2020). Self-regulated learning in higher education: The need to thrive. *International Journal of Management in Education*, *14*(3), 245–256. https://doi.org/10.1504/IJMIE.2020.107050

Akhdiyat, AM, & Hidayat, W. (2018). The Influence of Independent Mathematics Learning of Students on the Ability to Think Creatively in Mathematics for High School Students. *JPMI (Journal of Innovative Mathematics Learning)*, *1*(6), 1045. https://doi.org/10.22460/jpmi.v1i6.p1045-1054

Al-rawahi, NM, & Al-balushi, SM (2015). *The Effect of Reflective Science Journal Writing on Students' Self-Regulated Learning Strategies*. *10*(3), 367–379. https://doi.org/10.12973/ijese.2015.250a

Alhadi, S., & Supriyanto, A. (2017). Self-Regulated Learning Concept: Student Learning Progress. *National Seminar on the Role of Counseling Guidance in Strengthening Charact Education*, 333–342.

Alonso- Tapia, P. &. (2014). *handbook of research on developing engaging online courses* (Army W. Thornburg (ed.)). GLOBAL IGI.

Aminah, M., Kusumah, YS, Suryadi, D., & Sumarmo, U. (2018). The effect of metacognitive teaching and mathematical prior knowledge on mathematical logical thinking ability and self-regulated learning. *International Journal of Instruction*, *11*(3), 45–62. https://doi.org/10.12973/iji.2018.1134a

Arifin, F., & Herman, T. (2018). The Effect of Web Centric Course Model E-Learning on Concept Understanding and Students' Mathematics Learning Independence. *Journal of Mathematics Education*, *12*(2), 1–12.

Asih, N., & Ramdhani, S. (2019). Improving Mathematical Problem Solving Ability and Independent Learning of Students Using the Means End Analysis Learning Model. *Journal of Mathematics Education*, *8*(September), 435–446.

Biondi, EA, Varade, WS, Garfunkel, LC, Lynn, JF, Craig, MS, Cellini, MM, Shone, LP, Harris, JP, & Baldwin, CD (2015). Discordance between resident and faculty perceptions of resident autonomy: Can self-determination theory help interpret differences and guide strategies for bridging the divide? *Academic Medicine,* *90*(4), 462–471. https://doi.org/10.1097/ACM.0000000000000522

Bruin, ABH De. (2020). *Synthesizing Cognitive Load and Self-regulation Theory: a Theoretical Framework and Research Agenda*. 903–915.

Cecil R. Reynolds, D. (2013). *The Oxford Handbook of Child Psychological Assessment*. OUP USA. Cheng, C. (2011). *The role of self-regulated learning in enhancing learning performance*. May.

Conway, N., Clinton, M., Sturges, J., & Budjanovcanin, ALI (2015). *Using self-determination theory to understand the relationship between calling enactment and daily well-being. March.* https://doi.org/10.1002/job

Elfira, N. (2013). COUNSELOR | Counseling Scientific Journal. *Improving Students' Learning Independence Through Group Guidance Services*, *2*, 120–124.

Enie Novieastari, D. (2019). *Fundamentals of Nursing Vol 1-9th Indonesian Edition*. Elsevier Health Sciences.

Fauzi, A., & Widjajanti, DB (2018). Self-regulated learning: The effect on student's mathematics achievement. *Journal of Physics: Conference Series*, *1097*(1), 0–7. https://doi.org/10.1088/1742-6596/1097/1/012139

Ferguson, R., Gutberg, J., Schattke, K., Paulin, M., & Jost, N. (2015). Self-determination theory, social media and charitable causes: An in-depth analysis of autonomous motivation. *European Journal of Social Psychology*, *45*(3), 298–307. https://doi.org/10.1002/ejsp.2038

Fontana, RP, Milligan, C., Littlejohn, A., & Margaryan, A. (2015). Measuring self-regulated learning in the workplace. *International Journal of Training and Development*, *19*(1), 32–52. https://doi.org/10.1111/ijtd.12046

Hanifah, W., & Putri, KYS (2020). *The Effectiveness of Google Classroom Communication As a Distance Learning Media for Communication Studies Students, State University of Jakarta, Class of 2018* . *III*(II), 24–35.

Hendayani, IR & R. (2020). *Managing Learning Organization in Industry 4.0.* ROUTLEDGE.

Hidayah, N., & Sumbawati, MS (2019). The Effectiveness of the Flipped Classroom Learning Model on Self-Regulated Learning and Student Learning Outcomes in Basic Graphic Design Subjects at SMK N 1 Surabaya. *It-Edu*, *04*(01), 165–173. https://jurnalmahasiswa.unesa.ac.id/index.php/it-edu/article/view/29526

Indira Ratnafuri, & Muslihati. (2020). The effectiveness of self-regulated learning training in online learning to improve student learning mastery during the Covid 19 pandemic. *Guidance and Counseling Seminar Proceedings*, 16–22.

Jansen, RS, van Leeuwen, A., Janssen, J., Jak, S., & Kester, L. (2019). Self-regulated learning partially mediates the effect of self-regulated learning interventions on achievement in higher education: A meta-analysis. *Educational Research Review*, *28*, 100292. https://doi.org/10.1016/j.edurev.2019.100292

Jumaisyaroh, T., Napitupulu, EE, & Hasratuddin, H. (2015). Improving Mathematical Critical Thinking Ability and Learning Independence of Junior High School Students Through Problem-Based Learning. *Kreano, Journal of Creative-Innovative Mathematics*, *5*(2), 157. https://doi.org/10.15294/kreano.v5i2.3325

Karkankova, P. (2016). *Current Topics in Czech and Central European Geography Education*. Springer. Kristiyani, T. (2020). *Self-Regulated Learning*. Sanata Dharma University Press.

Latipah, E. (2015). Self-Regulated Learning Strategies and Learning Achievement: A Meta-Analysis Study. *Journal of Psychology*, *37*(1), 110–129–129. https://doi.org/10.22146/jpsi.7696

Lustyanti, Z. Raffi & N. (2016). *Language Learning Theory: A Brief Note*. Garudhawaca.

Magno, C. (2015). *Developing and Assessing Self-Regulated Learning Developing and Assessing Self-regulated Learners*. *1*(May 2009), 26–41.

Makur, AP, Jehadus, E., Fedi, S., Jelatu, S., Murni, V., & Raga, P. (2021). *Independent Learning of Students in Distance Learning During the Pandemic Mosharafa: Journal of Mathematics Education Mosharafa: Journal of Mathematics Education*. 10.

Moos, DC, & Ringdal, A. (2012). Self-Regulated Learning in the Classroom: A Literature Review on the Teacher's Role. *Education Research International*, *2012*, 1–15. https://doi.org/10.1155/2012/423284

Moylan, Z. (2017). *Handbook of Research on Serious Games for Educational Applications* (MK Zheng, Robert, Gardner (ed.)). GLOBAL IGI.

Mukhid, A. (2021). *Research Methodology Quantitative Approach*. Jakad Media Publishing. Mulyoto. (2018). *Journal of Convergence Education: July 2018 Edition*. Journal of Convergence Education: July 2018 Edition

Nyaga Njoki, E. (2015). Teaching Learners With Dysgraphia in Primary Schools in Embu. *International Journal of Education and Research*, *3*(2), 115–124.

Panadero, E. (2017). *A Review of Self-regulated Learning: Six Models and Four Directions for Research*. *8*(April), 1–28. https://doi.org/10.3389/fpsyg.2017.00422

Pérez-Álvarez, R., Maldonado-Mahauad, J., & Pérez-Sanagustín, M. (2018). Tools to Support Self Regulated Learning in Online Environments: Literature Review. *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, *11082 LNCS*, 16–30. https://doi.org/10.1007/978-3-319-98572-5_2

Roza, AW & AS (2015). *Language Learning Theory: A Brief Note*. Garudhawaca.

Schunk, BZ & DH (2011). *Handbook of Self-Regulation of Learning and Performance*. Taylor & Francis.

Setyaningrum, W. (2019). Self-regulated learning in blended learning approach. *Journal of Physics: Conference Series*, *1320*(1). https://doi.org/10.1088/1742-6596/1320/1/012089

Suciati, W. (2016). *Tips for Success Through Emotional Intelligence and Independent Learning*. CV.Rasi Published. Susanto, A. (2018). *Guidance and Counseling in Schools: Concepts, Theories, and Their Applications*. DATE.

Syahroni, MW, Dewi, NR, & Kasmui. (2016). The effect of using digimon (Science digital module) with scientific approach at the visualization of students' independence and learning results. *Indonesian Journal of Science Education*, *5*(1), 116–122. https://doi.org/10.15294/jpii.v5i1.5800

Utami, SR, Saputra, WNE, Suardiman, SP, & Kumara, AR (2020). Improving Student Self-Regulated Learning through Solution-Focused Concise Counseling. *Counsellia: Journal of Guidance and Counseling*, *10*(1), 1. https://doi.org/10.25273/counsellia.v10i1.4730

Wolters. (2011). *Handbook Of Self-Regulated Learning And Performance* (Barry J. Zımmerman And Dale H.Schunk (Ed.)). Routledge.

Yan, Z. (2020). Self-assessment in the process of self-regulated learning and its relationship with academic achievement. *Assessment and Evaluation in Higher Education*, *45*(2), 224–238. https://doi.org/10.1080/02602938.2019.1629390

Zimmerman. (2011). *Handbook of Self-Regulated Learning and Performance* (Barry J. Zımmerman And Dale H.Schunk (Ed.)). Routledge.