TEGAR 5 (2) (2022) 143-148
Journal of Teaching Physical Education in Elementary School
Available online at :
https://ejournal.upi.edu/index.php/tegar/article/view/47776
DOI: https://doi.org/10.17509/tegar.v5i2.47776

The Effect of Self-Regulated Learning on Self-Control in Table Tennis Learning

Muhamad Arif Ghazali[1,2]*, Dian Budiana[3], Didin Budiman[3]
[1]SDN Sibanteng 02, Bogor, Indonesia
[2]Sport Education Post-graduate School . Universitas Pendidikan Indonesia, Indonesia
[3]Physical Education Teacher Education for Elementary School. Universitas Pendidikan Indonesia, Indonesia

Article Info

Article History:
Received : April 2022
Revised : May 2022
Accepted : May 2022
Available Online : May 2022

Keywords :
Self-regulated learning, self-control, table tennis.

Abstract

The lack of student self-regulation in learning requires educators to implement a self-regulated learning model to improve the student ability to control themselves, have high confidence, be responsible, and be more independent in learning table tennis, thus the students are motivated to achieve the learning goals. The purpose of this study was to determine whether the SRL model in table tennis learning could improve the student self-control. The research method used was an experimental research method employing the Post-test Only Control Group Design. The population of this study were 80 students of the PETE for Elementary School Study Program of a university. The sampling technique used was the simple random sampling, involving 40 people. The instrument used to measure self-control was adopted from Tangney (self-control scale). The data analysis technique used was independent sample t-test employing SPSS 24 software for windows. The results showed that the self-regulated learning model had a significant effect on self-control in table tennis learning for PETE for Elementary School Study Program students.

*Correspondence Address : Kp. Gunung Peuteuy RT 01 RW 07 Sibanteng Kabupaten Bogor, 16640, West-Java, Indonesia
E-mail : ghajalimuhamadarif@gmail.com

INTRODUCTION

Recently, several articles have appeared related to learning models whose steps are expected to be able to develop cognitive abilities in the pleasure of learning by not neglecting the development of psychomotor aspects because the principles of the learning model help students to self-regulate in each lesson. This learning model is known as SRL (Self-regulated learning).

Self-regulated learning (SRL) is generally closely related to the field of psychology. This is because SRL is related to factors such as motivation, independence, and self-control. At the beginning of its emergence in the 1970s, SRL was often associated with things such as how a person can set targets and make strategies to achieve these targets, how to give and receive effective instructions, and how to force oneself (to motivate) to stay consistent in what is done. Has been planned. In the context of the classroom, for example, SRL is often related to how teachers can condition the classroom by taking into account the mental abilities and social and economic backgrounds of students as well as the standards that apply in schools.

The self-regulation learning model is based on Bandura's assumption of triadic responsiveness(Zimmerman, 1998). According to(Bandura, A., & Simon, 1977), three aspects of determinants influence the regulation and self-management in learning, namely aspects of self, behavior, and environment. The involvement of these three aspects is interconnected with each other and influences other processes. For example, when individuals try to regulate themselves, the result is in the form of performance or behavior, which will have an impact on changes in the surrounding environment.

In education, it is often assumed that SRL is appropriate when implemented in higher education. The maturity of cognitive and affective factors of students in higher education is why SRL is considered relevant when applied in higher education. In a study in Iran conducted by(Rajabi, 2012), it is proven that SRL in education is very important. This research even recommends that in this era of globalization, SRL should be the main consideration in preparing the curriculum because, in the constructivist learning approach, students are required to become independent learners who can regulate themselves. The learning process is no longer focused on the teacher (teacher-centered learning) but focuses on students (student-centered learning).

In Australia, research on SRL is linked to a blended course where learning is carried out online and offline. The study found that 2nd-year students with good SRL and self-control are proven to have good academic performance(Zhu, Au, & Yates, 2016). This study is in line with other studies linking SRL with academic performance in universities(Mccardle, Young, Baker, & McCardle, 2017) (Cassidy, 2011)(Sun, Xie, & Anderman, 2017).

In physical education, SRL is very important because students and students must be able to self-regulate to recognize human movement. Students in physical education must have good cognitive abilities in motor learning(Ommundsen, 2016). Research related to physical education and SRL agrees that SRL is very influential on students' ability in physical education classes because then they have a

high determination to complete task after task in physical education. (Mccardle et al., 2017) (Hutzler & Barak, 2017) (Colovelonis & Goudas, 2018).

In learning the game of table tennis, it was found that students had difficulties in performing movement tasks. For example, it was seen that when they punched, they still could not adjust the distance of the stroke, and when holding the bat, there were still many things that were not right, even though they did not understand how to hold it, thus hampering the learning process. Although table tennis is a sport that can improve coordination between eyes, hands, and brain performance, this sport can also be used as a means to train confidence when taking action and making decisions. One model known as a strategy that can improve students' skills is Self-Regulated Learning(Budiana, 2017). Table tennis learning is considered suitable as a means to improve student self-control because this sport requires players always to be ready and confident when making decisions.

METHOD

The research design used by the researcher in this study used experimental research. The population used in this study were students of the PGSD Penjas FPOK UPI study program. The participants in this study were 40 students of the Physical Education PGSD Study Program who contracted table tennis courses, divided into two groups of 20 students from the experimental group and 20 from the control group. The instrument used by the researcher in this study was the self-control scale (SCS) (Tangney, Baumeister, & Boone, 2004). In data processing in this study, the author uses descriptive statistical analysis techniques.

RESULTS AND DISCUSSION

The results of statistical calculations have proven that SRL significantly influences self-control. This can be proven by prior to the treatment, the students had homogeneous abilities in table tennis learning, with the results of the statistical calculation of the homogeneity test of 0.91 > 0.05, which stated that it was homogeneous, then treatment was carried out for 16 meetings divided into two research samples, namely the control class. (using the conventional learning model) Moreover, the experimental class (using the SRL learning model). With an average statistical number of the experimental group 132.60 and the control group an average of 119.70, as shows on Table 1.

Table 1. T-independent Test Results

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
SELF-CONTROL	Equal variances assumed	,01	,91	6.18	38	,00	12.9	2.08
	Equal variances not assumed			6.18	37.4	,00	12.9	2.08

Table 1 shows that the F-count value for the variance assumption is 0.01 with a probability (Sig.) of 0.91. it is based on the criteria Ho is rejected if the significance is < 0.05 and Ha is accepted if the significance is < 0.05. Because the significance value is 0.00 or < 0.05, the research hypothesis can be accepted (using

the conventional learning model) Apart from the above data, the success of SRL learners can be seen in students' behavior. Although, before the treatment, students are difficult controlling themselves, challenging them to control their emotions, after treatment, students are more able to control themselves, enthusiastic in participating in learning, and more independent, from the explanation that SRL has succeeded in changing student behavior although not significant.

At the 1st to fifth meetings, students still cannot control themselves, such as still feeling ashamed and not confident in their abilities. In the 6th to 11th meetings, students began to feel that they could do it, began to feel it, and their self-confidence increased further. It was proven that when the researcher intrigued the task, the students immediately tried it even though they felt it was still not right, even though some students still do not believe in themselves. Furthermore, at the 12th to 16th meetings, students continued to experience improvements in processing and controlling themselves, such as warming up on their own without being instructed, being able to control their emotions better, being more active in learning, being more responsible, and being able to learn independently. So that learning can be more effective. One of the initiators of SRL who stated that the effect of applying SRL in learning must produce several skills where students are able to make self-reflection on their learning (Zimmerman, 1998).

Independent learning refers to strategic and metacognitive behavior, motivation, and cognition to achieve goals. In line with an opinion(Hadwin, 2011), "Students can describe themselves as independent individuals to the degree they are metacognitive, motivational, and active behavioral participants in their learning process."(Zimmerman, 2008)said that "Self -Regulation is a process in which a student activates and sustains cognition, behavior, and feelings that are systematically oriented towards the achievement of a goal."

In line with the findings(Chung, 2016). In this study, it was stated that learning was not only controlled by external aspects but also by self-regulated internal aspects. Therefore, learning must be an active, constructive, and self-regulated process. (Montalov et al. 2004). Students who can empower SRL can regulate the learning process to achieve the desired learning outcomes. These abilities include their own learning needs.

According to Bandura (Zimmerman, 1998), three aspects of determinants influence the regulation and self-management in learning, namely aspects of self, behavior, and environment. The involvement of these three aspects is interconnected with each other and influences other processes. For example, when individuals try to regulate themselves, the result is in the form of performance or behavior, which will impact changes in the surrounding environment.

In research, Tanggeny et al. self-control with task performance showed a significant reliability value of 0.89. He also mentioned, ". People with higher reported self-control scored better than those who reported low self-control, consistent with the idea that self-control contributes significantly to academic success. Furthermore, social desirability was not responsible for the relationship between self -control and mean scores." Tangney, (2004).

In the process, this self-regulated

learning model has a peculiarity, namely the process of imagining, so before students make movements with the ball, students make shadow movements (movements without the ball). This process supports students in mental improvement, in this case, confidence and student concentration. As stated by Holmes & Collins (2001), "today most sports practitioners have used mental imagery training which describes structured mental training techniques to create an optimal sports performance."

In addition to improving the mental process of imagining, it affects one's skills, as evidenced by many athletes, coaches, and teachers who apply this imagery, for example, improving the motor skills of Chinese table tennis athletes.(Li-Wei, Qi-Wei, Orlick, & Zitzelsberger, 1992), free throws in basketball(Ramsey, Cumming, & Edwards, 2008), high jump(Olsson, Jonsson, & Nyberg, 2008), and swimming (Pavlidou & Doganis, 2008)

So, this self-regulated learning not only affects self-control but also affects skills and performance. As reported in various research results, mental imagery is an effective tool for improving athlete performance(Kossert & Munroe-Chandler, 2007).

CONCLUSION

These results can be concluded that there is an effect of the self-regulated learning model on Self-Control in learning the table tennis game for PGSD PENJAS students.

Recommendations for further research, self-regulated learning is one of the factors that influence the success of student learning, and there are still many things that must be revealed, so it is recommended to be able to examine other variables, such as their relationship with cognitive (understanding) and psychomotor (movement skills). Furthermore, the results of this study can be used as input for consideration if you want to conduct further research on students who are proposing further research at the "X" faculty of the "Y" university. For further research, correlational research can be used with social support variables (family and supervisors), so that it can be seen how the relationship between family support and supervisors with self-control and academic procrastination behavior can be used. This study only uses a questionnaire/ questionnaire as the main data collection tool with the help

REFERENCES

Bandura, A., & Simon, K. M. (1977). The role of proximal intentions in self-regulation of refractory behavior. *Cognitive therapy and research*, *1* (3), 177-193.

Budiana, D. (2014). The influence of self regulated and traditional learning model on the development of students' cognitive process and sport enjoyment in basketball learning process. *Asian Social Science*, *10*(5), 123.

Cassidy, S. (2011). Self-regulated learning in higher education: Identifying key component processes. *Studies in Higher Education*, *36*(8), 989-1000.

Chung, M. K. (2001). Development of self-regulated learning. *Gifted and Talented International*, *16*(1), 27-39.

Hadwin, A., & Oshige, M. (2011). Self-regulation, coregulation, and socially shared regulation: Exploring perspectives of social in self-regulated learning theory. *Teachers College Record*, *113*(2), 240-264.

Hutzler, Y., & Barak, S. (2017). Self-efficacy of physical education teachers in including students with cerebral palsy in their classes. *Research in developmental disabilities*, *68*, 52-65.

Kolovelonis, A., & Goudas, M. (2018). The relation of physical self-perceptions of competence, goal orientation, and optimism with students' performance calibration in physical education. *Learning and individual differences*, *61*, 77-86.

Kossert, A. L., & Munroe-Chandler, K. (2007). Exercise imagery: A systematic review of the empirical literature. *Journal of Imagery Research in Sport and Physical Activity*, *2*(1).

Li-Wei, Z., Qi-Wei, M., Orlick, T., & Zitzelsberger, L. (1992). The effect of mental-imagery training on performance enhancement with 7-10-year-old children. *The Sport Psychologist*, *6* (3), 230-241.

McCardle, L., Young, B. W., & Baker, J. (2019). Self-regulated learning and expertise development in sport: Current status, challenges, and future opportunities. *International Review of Sport and Exercise Psychology*, *12*(1), 112-138.

Olsson, C. J., Jonsson, B., & Nyberg, L. (2008). Internal imagery training in active high jumpers. *Scandinavian journal of psychology*, *49*(2), 133-140.

Ommundsen, Y. (2003). Implicit theories of ability and self-regulation strategies in physical education classes. *Educational Psychology*, *23*(2), 141-157.

Pavlidou, M., & Doganis, G. (2008). The effects of a psychological intervention program in swimming. *Journal of Excellence*, *12*(4), 71-7.

Rajabi, S. (2012). Towards self-regulated learning in school curriculum. *Procedia-Social and Behavioral Sciences*, *47*, 344-350.

Ramsey, R., Cumming, J., & Edwards, M. G. (2008). Exploring a modified conceptualization of imagery direction and golf putting performance. *International Journal of Sport and Exercise Psychology*, *6*(2), 207-223.

Sun, Z., Xie, K., & Anderman, L. H. (2018). The role of self-regulated learning in students' success in flipped undergraduate math courses. *The internet and higher education*, *36*, 41-53.

Tangney, J. P., Boone, A. L., & Baumeister, R. F. (2018). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. In *Self-regulation and self-control* (pp. 173-212). Routledge.

Zhu, Y., Au, W., & Yates, G. (2016). University students' self-control and self-regulated learning in a blended course. *The Internet and higher education*, *30*, 54-62.

Zimmerman, B. J. (1998). Academic studing and the development of personal skill: A self-regulatory perspective. *Educational psychologist*, *33*(2-3), 73-86.

Zimmerman, B. J. (2008). Investigating self-regulation and motivation: Historical background, methodological developments, and future prospects. *American educational research journal*, *45*(1), 166-183.