Journal of Physical Education and Sport ® (JPES), Vol. 21 (issue 6), Art 485, pp. 3593 - 3598, December 2021
online ISSN: 2247 - 806X; p-ISSN: 2247 – 8051; ISSN - L = 2247 - 8051 © JPES

Original Article

Self-regulated learning and motor skills: effects of a physical education intervention program on Japanese college students

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Published online: December 30, 2021
(Accepted for publication December 15, 2021)
DOI:10.7752/jpes.2021.06485

Abstract:
Previous research has found that self-regulated learning has intervention effects on motor skills. However, few studies have examined the intervention effects on motor skills in physical education, including various motor skills and games. The aim of the study was to investigate the influence of self-regulated learning using an intervention program on students' motor skills, self-regulated learning strategies, and self-efficacy. We recruited 40 college students from two classes in Japan who attended a physical education class and assigned them to an intervention group (20 male students: M_{age} = 18.7 years, SD_{age} = 0.7) and a comparison group (20 male students: M_{age} = 18.8 years, SD_{age} = 0.6). The intervention was based on the cyclical phase model of self-regulation and used a workbook to engage in learning using self-regulated learning strategies at each phase. The physical education class had 15 sessions of soccer. Research and interventions were conducted over a period of up to 12 sessions. Both groups underwent performance tests for soccer, and completed a questionnaire on self-efficacy and self-regulated learning strategies related to physical education classes. Repeated analysis of variance measures revealed that the intervention group had higher scores in dribbling skill, effort, and evaluation through the intervention. Passing skill and self-efficacy scores improved through class for both groups. The study revealed the intervention of self-regulated learning was effective not only in physical education classes where students learned specific motor skills, but also in physical education classes where students engaged in various motor skills and games. The limitations of the intervention program and future strategies to enhance its utility are also discussed in the study.
Key Words:self-regulation, self-efficacy, performance, education

Introduction

To improve motor skills in physical education, it is important to consider not only the teaching of teachers, but also the learning behavior of students. Self-regulated learning, which focuses on learners' learning behavior, has been defined as follows: "student as metacognitively, motivationally, and behaviorally active participants in their own learning process" (Zimmerman, 1986, p.308).

There are various theories of self-regulated learning, one of which is based on social cognitive theory (Zimmerman, 1986). Based on that theory, Zimmerman (1998) developed a cyclical model of self-regulation that includes self-regulation processes and motivation beliefs in three cyclically interrelated phases: forethought, performance, and self-reflection. The forethought phase precedes students' engagement in a class and involves task analysis processes and motivation beliefs. The performance and control phase includes processes that occur during motoric efforts and affect attention and action. The self-reflection phase involves processes that occur after performance efforts and influence a student's responses to that experience. Self-reflection phase processes also influence forethought phase processes. These phases include self-regulated learning strategies such as goal setting, monitoring, and self-evaluation, and motivation such as self-efficacy, goal orientation, and causal attribution. The interrelationship of self-regulated learning strategies and motivation allows each phase of learning to progress in a cycle. The cyclical model of self-regulation not only shows students' learning process, but also provides an instructional approach for developing self-regulated learning. According to a growing body of literature, this model has beneficial effects for motor skills on physical education (Kolovelonis and Goudas, 2013).

Most of the self-regulated learning interventions in physical education classes have been examined for specific motor skills. Kolovelonis et al. (2011a) reported that both the group using instructional self-talk and the group using motivational self-talk improved their performance in the basketball chest pass and modified push-ups exercise tasks. Kolovelonis et al. (2011c) showed that the three experimental groups (reciprocal style, self-check style, sequential use of reciprocal and self-check style) performed better on the chest pass than the control group. Motor skills targeted in previous studies include the basketball dribble (Kolovelonis and Goudas, 2012; Kolovelonis et al., 2012a, 2012c, 2013), basketball free throw (Cleary et al., 2006; Goudas et al., 2017), and dart throw (Kitsantas and Zimmerman, 1998; Kitsantas et al., 2000; Kolovelonis et al., 2010, 2011b, 2012b;

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Zimmerman and Kitsantas, 1996, 1997). Self-regulated learning interventions have also been shown to improve specific motor skills. This previous research has focused only on the intervention of self-regulated learning on particular motor skills in physical education, although physical education teachers teach a variety of motor skills and games, rather than only specific motor skills. Therefore, it is important to examine the effects of self-regulated learning in physical education classes that include a variety of motor skills and games.

Additional research is needed to clarify the intervention effects of self-regulated learning in physical education classes that include a variety of motor skills and games. The studies of Budiana (2014) and Susaki and Sugiyama (2016, 2017) on physical education include a variety of motor skills and games. Budiana (2014) compared the effect of a self-regulated learning model and a traditional model on junior high school students. The results showed that self-regulated learning model had a higher cognitive process and greater enjoyment than the traditional model. Susaki and Sugiyama (2016, 2017) examined the effectiveness of intervention using a workbook based on the cyclical model of self-regulation for university students. Susaki and Sugiyama (2016) found that the intervention group reported high self-regulated learning strategies and adjustment to the physical education class. Susaki and Sugiyama (2017) reported that the intervention group showed a significant increase in self-regulated learning strategies and self-efficacy. These findings suggest that self-regulated learning interventions promote the use of such strategies and increase motivation in physical education classes. Thus, self-regulated learning was effective not only in physical education classes focused only on the acquisition of specific motor skills, but also in physical education classes that included a variety of motor skills and games.

However, no research thus far has examined whether the intervention of self-regulated learning affects motor skills in physical education classes that include a variety of motor skills and games. It is important to encourage the use of self-regulated learning strategies and increase motivation in the learning interventions in physical education classes, while also improving motor skills to engage in these activities. Therefore, the present study aims to fill this gap by examining the effects of self-regulated learning on students' motor skills and to extend the analysis by investigating the effects on students' self-regulated learning strategies and self-efficacy. This study hypothesizes that the intervention group 1) improves motor performance, acquisition of self-regulation learning strategies, and self-efficacy through the intervention and 2) the effects in the intervention group are better than those in the comparison group.

Material & methods

Participants

Participants were 40 male students who attended physical education classes in one university in a large-sized city in Japan. There were two classes of physical education classes, of which one was the intervention group (20 students: M_{age} = 18.7 years, SD_{age} = 0.7) and the other the comparison group (20 students: M_{age} = 18.8 years, SD_{age} = 0.6).

Performance test

The dribble test is a test of dribbling a ball in a figure of eight pattern between two cones separated by 3 meters within 30 seconds (Matsumoto and Goto, 2007, Fig. 1). The score is assessed as 4 points per rotation.

A pass test is a test of kicking a ball from a distance of 11 meters measured by the number of balls passed between cones (Tsuda and Goto, 2008, Fig. 1). There are five courses and the pass test involves one trial in each course.

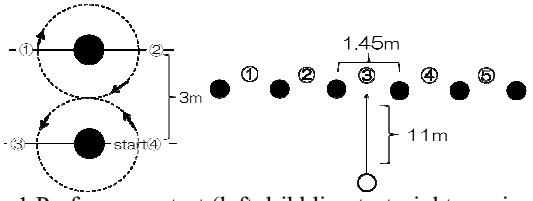

Figure 1 Performance test (left dribbling test, right passing test)

Self-regulated strategies

The Japanese version of the self-regulated strategies in physical education (Susaki and Sugiyama, 2015) measures three stages in physical education. The foresight phase measures goal setting (e.g., I plan how to solve a problem). The performance and control phase consists of six subscales: effort (e.g., I work as hard as possible on all tasks), monitoring (e.g., I check my skills based on the result or record), image (e.g., I imagine a target skill), self-talk (e.g., I tell myself to understand the point of the task), help-seeking from classmate (e.g., I seek help from a classmate about how to approach the class), and help-seeking from teachers (e.g., I seek help from teachers for improving my skills).

The self-reflection phase consists of two subscales: evaluation (e.g., I look back and check whether I did it correctly) and reflection (e.g., I reflect about my past experiences to know how to do things better next time). Participants respond to items on a 5-point Likert-type scale (1=strongly disagree to 5=strongly agree). A higher score indicates more frequent use of self-regulated learning strategies.

Self-efficacy

The self-efficacy in physical education scale (Susaki and Sugiyama, 2016) measures perceived self-efficacy with 10 items that rate the statement "I can solve most problems if I invest the necessary effort." Participants report items on a a 5-point Likert-type scale (1=strongly disagree to 5=strongly agree). A higher score indicates perceived self-efficacy in physical education. These groups were given an explanation of the purpose of the survey; they were told that the results of the survey would be statistical so that no individuals could be identified, the results of the survey would be made public, and regardless of the conducted survey, class performance would not be affected and there would be no disadvantage to the participants. These explanations were given orally and in document form, and the survey was conducted only among those who gave their consent to the survey.

Design and procedure

Both intervention and comparison groups were taught similar content. The lessons consisted of individual skills (e.g., dribbling, passing, shooting, and trapping), group practice, and games. The comparison group was not given information about self-regulated learning and was given time to evaluate the lessons. This physical education class had teaching hours per week of 15 sessions of 90 minutes each. Research and interventions were conducted over a period of up to 12 sessions, because the class had a 4-week long break of between 12 and 13 sessions. The research hypotheses were tested through pre-test and post-test measures on performance, self-regulated learning, and self-efficacy (Table 1).

Table 1 Intervention content

Class: soccer	
1	Pre test: self-regulated learning and self-efficacy
2	In order to rain, taught softvolleyball
3	Pre test: morter skill
4	Interevention1: monitoring
5	Interevention2: self-talk
6	Interevention3: image
7	Interevention4: help-seeking
8	Interevention5: regulate effort
9	Interevention6: self-selection of learning strategies
10	Interevention7: self-selection of learning strategies
11	Post test: self-regulated learning and self-efficacy
12	Post test: moter skill and satisfaction

Intervention program

The intervention program was based on previous studies (Susaki and Sugiyama, 2016, 2017) that include social experience, which refers to guidance from a teacher or friend, and independent experience (Schunk and Zimmerman, 1996). The first intervention explained the cyclical model of self-regulation and the workbook provided feedback on the use of self-regulated learning strategies in physical education classes. The workbook consisted of motor skill goals, and self-regulation learning strategies to be used during the performance phase, their evaluation, and boxes for classmates' signatures. The goals were set based on previous goals and evaluations. The self-regulated learning strategies used in the performance and control phase were selected from monitoring, self-talk, image, help-seeking, and effort. The self-regulated learning strategies were determined from the first to the fifth interventions, and the sixth and seventh interventions were chosen by the students (Table 1).

The self-regulated learning strategies used in the performance and control phase were explained and demonstrated by the teacher: monitoring involved observing one's own performance, self-talk was telling oneself to understand the point of the task, help-seeking involved asking classmates or the teacher for advice, image was imagining performance, and effort involved focusing on one's own tasks or work as much as possible for all tasks. Evaluation of the goals meant judging whether the set goals had been achieved. Self-learning strategies were assessed regarding their use and effectiveness. Feedback explained the results of self-regulated learning strategies (Susaki and Sugiyama, 2015); it was investigated in a pre-test. The intervention group wrote down the set goals and self-regulated learning strategies in their workbook and then shared them with their pairs of classmates. After these evaluations were recorded in the workbook, they explained the content to the pairs of classmates and had them sign the workbook.

The control group was taught the same educational materials but did not explain the cyclical model of self-regulation or use the workbook.

Data Analyses

Data were analyzed through 14 separate 2 (time) × 2 (group) analyses of variance (ANOVAs) with students' scores in the performance test, self-regulation strategy, self-efficacy, and satisfaction as the dependent variable, respectively. In the cases of significant differences, the effect sizes of $_p\eta^2$ and Cohen's d were calculated. For the analysis, we used IBM SPSS 22.0 for Windows.

Results

To examine the effects of self-regulation intervention on students' soccer performance, a 2 (time) × 2 (group) ANOVA with students' score in the dribble test, pass test, and self-regulated learning strategies as the dependent variable was conducted (Table 2).

For the dribble test, the results showed a significant interaction, $F(1, 38) = 6.95$, $p = .01$, $_p\eta^2=.16$. Post hoc analysis showed that the post-test was significantly higher than the pre-test in the intervention group and the control group was significantly higher than the intervention group in the pre-test. For the pass test, the results showed a significant time main effect, $F(1, 38) = 11.12$, $p = .02$, $_p\eta^2=.23$, and the post-test had higher scores than the pre-test did. Effort showed a significant interaction, $F(1, 38) = 5.08$, $p = .03$, $_p\eta^2=.12$, and the post-test was significantly higher than the pre-test was in the intervention group. The evaluation results revealed a significant interaction, $F(1, 38) = 7.17$, $p = .01$, $_p\eta^2=.16$. Post hoc analysis showed that the post-test was significantly higher than the pre-test was in the intervention group and the comparison group was significantly higher than the intervention group was in the pre-test. For self-efficacy, the results showed that the post-test had significantly higher scores than the pre-test did, $F(1, 38) = 6.51$, $p = .02$, $_p\eta^2=.15$. No differences were found between the intervention group and the comparison group for goal setting, monitoring, image, self-talk, help-seeking from classmates, help-seeking from teachers, and reflection.

Table 2 Means and standard deviations for all dependent variables for each group

	intervention group				control group						
	pre		post		pre		post				
	M	SD	M	SD	M	SD	M	SD	time	class	interaction
performance											
dribbling	16.25	4.01	21.70	3.92	21.10	4.94	23.00	4.51	29.81*	6.51*	6.95*
pass	3.10	1.52	4.05	0.83	3.40	1.19	4.05	1.10	11.12*	.27	.39
dash	3.05	0.19	2.95	0.19	2.78	0.10	2.78	0.15	5.02*	22.62*	5.85*
self-regulation strategy											
goal setting	20.65	3.39	22.10	4.12	21.85	4.06	21.30	3.44	.51	.04	2.53
effort	21.35	4.07	23.20	3.09	23.45	3.28	23.35	3.30	4.09	1.26	5.08*
monitoring	14.40	1.93	15.40	2.01	15.60	2.62	15.30	2.56	.66	.88	2.28
image	18.75	3.97	19.30	3.21	20.10	3.31	19.60	2.95	.00	.86	.79
self talk	11.95	3.63	13.40	3.60	13.10	3.48	13.45	3.44	2.43	.39	.91
help-seeking to classmate	10.10	2.31	10.20	2.65	11.45	2.48	10.80	2.31	.42	2.30	.77
help-seeking to teachers	9.05	1.96	9.30	3.01	10.15	1.93	9.15	2.68	.73	.56	2.04
evaluation	18.85	4.13	21.75	3.65	22.30	3.60	21.40	3.90	1.99	2.50	7.17*
reflection	19.10	2.05	19.40	2.19	19.90	2.86	18.65	2.72	1.14	.00	3.04
motivation											
self-efficacy	31.80	6.50	34.35	7.81	32.80	5.43	35.15	7.69	6.51*	.21	.01
satisfaction	38.95	28.26	56.32	28.18	47.50	23.14	55.50	17.31	7.42*	.38	.99

*Significant ($p< .05$).

Dicussion

The purpose of this study was to investigate the effectiveness of intervention of self-regulated learning in the development of motor skills, self-regulated learning strategies, and self-efficacy in physical education classes. The intervention group had significantly improved scores for dribbling skill, evaluation, reflection, and self-efficacy through the intervention, but they did not differ significantly from the comparison group. The results lent some support to the first hypothesis, but no evidence was found to support the second hypothesis.

The intervention of self-regulated learning designed to improve only particular motor skills has been found to improve learners' motor performance (Cleary et al., 2006; Goudas et al., 2017; Kitsantas and Zimmerman, 1998; Kitsantas et al., 2000; Kolovelonis and Goudas, 2012; Kolovelonis et al., 2010, 2011a, 2011b, 2012a,2012b, 2012c, 2013; Zimmerman and Kitsantas, 1996, 1997). This study indicated that the

intervention of self-regulated learning improved motor performance in physical education classes that include a variety of motor skills and games. This intervention was the workbook, which allowed students to engage in learning using self-regulated learning strategies at each phase of the cyclical model of self-regulation. In the foresight phase, the intervention group was instructed to set goals and plan a self-regulation learning strategy. In the performance and control phase, the intervention group used the set self-regulated learning strategy while learning. In the self-reflection phase, the goals and selected self-regulated learning strategy were evaluated. And in the foresight phase of the next lesson, the results of the previous self-reflection phase were used to set goals and plan a self-regulated learning strategy. Previous research (Cleary and Zimmerman, 2001; Kitsantas and Zimmerman, 2002) has found that experts display more effective self-regulated learning strategies than non-experts and novices did in the cyclical model of self-regulation. Kitsantas et al. (2018, p.200) indicated that experts may "display higher levels of performance because they engage in more effective self-regulatory processes than non-experts and novices." In light of these findings, the intervention group members might have acquired dribbling skill, passing skill, effort, and revaluation by engaging in a self-regulating learning strategy at each phase in the cyclical model of self-regulation. Through self-regulatory processes, the experience of success in learning might have improved self-efficacy (Bandura, 1977).

However, this study did not indicate that the intervention group had higher motor performance than the comparison group after the intervention. The physical education class in this study taught soccer and had time to engage in motor tasks to improve their motor skills. The members of this class engaged in other motor skills (e.g., trapping and shooting) as well as motor skills of performance test (dribbling and passing). This class was instructed not only in motor skills involving movement on the ball but also motor skills involving movement off the ball and defensive movements. This soccer class was required to perform these motor skills in a game, and it might have been difficult to practice the motor skills for performance tests while using the self-regulated learning strategy. In this situation, it is possible that the intervention group acquired only some self-regulated learning strategies and did not perform better than the comparison group. Prior research on intervention has indicated that the intervention group acquires self-regulated learning strategies (Susaki and Sugiyama, 2017). This study (Susaki and Sugiyama, 2017) was a tennis class, whose members had more opportunities to perform motor skills compared to members of the soccer class, and therefore, used a self-regulated learning strategy to engage in learning.

Conclusions

The study aimed to determine the intervention effects of self-regulated learning in a physical education class that included a variety of motor skills and games. The results showed that the intervention not only promoted the use of these learning strategies, but also improved motor skills. This suggests that workbook-based interventions are effective in improving self-regulated learning and motor skills in physical education classes.

Previous research has focused only on the intervention of self-regulated learning on particular motor skills in physical education (Cleary et al., 2006; Goudas et al., 2017; Kitsantas and Zimmerman, 1998; Kitsantas et al., 2000; Kolovelonis and Goudas, 2012; Kolovelonis et al., 2010, 2011a, 2011b, 2011c; 2012a, 2012b, 2012c, 2013, Zimmerman and Kitsantas, 1996, 1997). However, this study indicated the effectiveness of self-regulated learning interventions in physical education classes that include a variety of motor skills and games. Based on the findings of this study, it is expected that future studies of self-regulated learning interventions will examine not only specific motor skills, but also physical education classes.

Since this study was conducted on college students, it is unclear whether the findings of this study are relevant for individuals at different developmental stages such as elementary school, junior high school, and high school. To better determine the intervention effects, future studies should examine various types of schools.

References

Bandura, A. (1977) Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84: 191-215.

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), 123-129.

Cleary, T. J., & Zimmerman, B. J. (2001) Self-regulation differences during athletic practice by experts, non-experts, and novices. Journal of Applied Sport Psychology, 13(2), 185-206.

Cleary, T. J., Zimmerman, B. J., & Keating, T. (2006) Training physical education students to self-regulate during basketball free throw practice. Research Quarterly for Exercise and Sport, 77(2), 251-262.

Goudas, M., Dermitzaki, I., & Kolovelonis, A. (2017) Self-regulated learning and students' metacognitive feelings in physical education. International Journal of Sport and Exercise Psychology, 15(2), 131-145.

Kitsantas, A., Kavussanu, M., Corbatto. D. B., & van de Pol, P. K. C. (2018) Self-regulation in athletes. In Schunk. D. H., & Greene, J. A. (Eds.), Handbook of self-regulation of learning and performance 2nd edition. Routledge, pp. 194-207.

Kitsantas, A., & Zimmerman, B. J. (1998) Self-regulation of motoric learning: A strategic cycle view. Journal of Applied Sport Psychology, 10, 220-239.

Kitsantas, A., & Zimmerman, B. J. (2002) Comparing self-regulatory processes among novice, non-expert, and expert volleyball players: A microanalytic study. Journal of Applied Sport Psychology, 14(2), 91-105.
Kitsantas, A., Zimmerman, B. J., & Cleary, T. (2000) The role of observation and emulation in the development of athletic self-regulation. Journal of Educational Psychology, 92(4), 811-817.
Kolovelonis, A., & Goudas, M. (2012) Students' recording accuracy in the reciprocal and the self-check teaching style in physical education. Educational Research and Evaluation, 18(8), 733-747.
Kolovelonis, A., & Goudas, M. (2013) The development of self-regulated learning of motor and sport skills in physical education: A review. Hellenic Journal of Psychology, 10, 193-210.
Kolovelonis, A., Goudas, M., & Dermitzaki, I. (2010) Self-regulated learning of a motor skill through emulation and self-control levels in a physical education setting. Journal of Applied Sport Psychology, 22, 198-212.
Kolovelonis, A., Goudas, M., & Dermitzaki, I. (2011a) The effects of instructional and motivational self-talk on students' motor task performance in physical education. Psychology of Sport and Exercise, 12, 153-158.
Kolovelonis, A., Goudas, M., & Dermitzaki, I. (2011b) The effect of different goals and self-recording on self-regulation of learning a motor skill in a physical education setting. Learning and Instruction, 21, 355-364.
Kolovelonis, A., Goudas, M., & Dermitzaki, I. (2012a) Students' performance calibration in a basketball dibbling task in elementary physical education. International Electronic Journal of Elementary Education, 4(3), 507-517.
Kolovelonis, A., Goudas, M., & Dermitzaki, I. (2012b) The effects of self-talk and goal setting on self-regulation of learning a new motor skill in physical education. International Journal of Sport and Exercise Psychology, 10(3), 221-235.
Kolovelonis, A., Goudas, M., Dermitzaki, I., & Kitsantas, A. (2013) Self-regulated learning and performance calibration among elementary physical education students. European Journal of Psychology of Education, 28, 685-701.
Kolovelonis, A., Goudas, M., & Gerodimos, V. (2011c) The effects of the reciprocal and the self-check styles on pupils' performance in primary physical education. European Physical Education Review, 17(1), 35-50.
Kolovelonis, A., Goudas, M., Hassandra, M., & Dermitzaki, I. (2012c) Self-regulated learning in physical education: Examining the effects of emulative and self-control practice. Psychology of Sport and Exercise, 13, 383-389.
Matsumoto, Y., & Goto, Y. (2007) The effect of learning process systematized by "task game" extracted from tactics of soccer on upper grade of elementary school children. Japanese Journal of Sport Education Studies, 26(2), 89-103.(in Japanese)
Schunk, D. H., & Zimmerman, B. K. (1996) Modeling and self-efficacy influences on children's development of self-regulation. In K. Wentzel, & J. Juvonen (Eds.), Social motivation: Understanding children's school adjustment. Cambridge University Press, pp. 154-180.
Susaki, Y. & Sugiyama, Y. (2015) Relations between self-regulated learning strategies and adjustment to physical education class. Kyushu journal of physical education and sport 29(2), 1-11. (in Japanese)
Susaki, Y. & Sugiyama, Y. (2016) Influence of self-regulated learning based physical education on adjustment to physical education class and subjective adjustment to school in first year university students. Educational Journal of Health, Sport and Physical Education, 16(1), 16-23.(in Japanese)
Susaki, Y. & Sugiyama, Y. (2017) Evaluation of intervention for self-regulated learning strategies and self-efficacy in physical education classes for university students. Japan Journal of Physical Education, Health and Sport Sciences, 62(1), 227-239.(in Japanese)
Tsuda, R., & Goto, K. (2008) The acquirement of skill of female students in soccer class. Journal of Sport and Physical Education Center University of Tsukuba, 30, 61-65.(in Japanese)
Zimmerman, B. J. (1986) Becoming a self-regulated learner: Which are the key subprocesses? Contemporary Educational Psychology, 11, 307-313.
Zimmerman, B. J. (1998) Developing self-fulfilling cycles of academic regulation: An analysis of exemplary instructional models. In Schunk. D. H., & B. Zimmerman, B. J. (Eds.), Self-regulated learning: From teaching to self-reflective practice. Guilford. Pp.1-19.
Zimmerman, B. J. Kitsantas, A. (1996) Self-regulated learning of a motoric skill The role of goal setting and self-monitoring. Journal of Applied Sport Psychology, 8, 60-75.
Zimmerman, B. J. Kitsantas, A. (1997) Developmental phases in self-regulation: Shifting from process goals to outcome goals. Journal of Educational Psychology, 89(1), 29-36.