The Importance of Self-Motivation in the Forethought Phase of Self-Regulated Learning

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This study focuses on the aspect of self-motivation as an influential part of the implementation of forethought in self-regulated learning. Self-motivation consists of self-efficacy, intrinsic interest, goal orientation, outcome expectations, and activation of knowledge. This study was conducted by providing a scale of self-motivation and forethought in self-regulated learning. The results showed that not all aspects of self-motivation have a significant impact on the implementation of self-regulated student learning. Goal orientation had a significant impact on the implementation of students' self-regulation, followed by self-efficacy, activation of knowledge, outcome expectations, and intrinsic interest/value. This means that knowledge of learning goals is a crucial factor for encouraging self-regulated learning. Furthermore, self-efficacy had the role of arousing the psychic energy to act after learning needs and obligations (self-regulated learning). The process and rationalisation of the findings are discussed in this article.

Key words: *Self-motivation, forethought phase, self-regulated learning.*

Introduction

In recent decades, self-regulated learning has become a very popular and important research topic. Pieces of evidence indicate that self-regulated learning correlates with various aspects of academic achievement, either for high school students or college students. Some research correlates self-regulated learning with learning achievement (Sink, Barnett, & Hixon, 1991), and (Eshel & Kohavi, 2003), academic talent (Zimmerman & Martinez-pons, 1990), and academic emotions (Pekrun, Goetz, Titz, & Perry, 2002). Therefore, self-regulated learning is becoming increasingly trusted in the academic world. There are experts/researchers who

state that "*self-regulated learning just might have the horsepower, or solar power, for the ride to the new territory*" (Paris, Newman, & Paris, 1990).

Since the 1980s, various training and development programs intended to encourage self-regulated student learning have been developed and implemented. However, only a few have been empirically evaluated (Goetz, Nett, & Hall, 2013). In this context, this research was conducted to observe and prove that self-motivation is related to the ability to implement self-regulated learning.

Self-motivation derived from the SCENT (*Self-Concept Enhancing Tacticians*) model is a prototype for a self-motivation approach (Sedikides & Strube, 1997). The SCENT model proposed four kinds of motives that will be discussed in brief. Self-enhancement motives direct individuals to have and enhance positive self-concepts and to avoid and protect individuals from having negative self-concepts (Sedikides & Strube, 1997). Motives are deduced from behaviours, such as preferring social comparisons to the bottom (valuing oneself as "better than average" in many dimensions), defining positive traits in terms of one's abilities, and linking failure to external causes and success to internal causes.

The self-assessment motive leads individuals to obtain an accurate evaluation of themselves. In general, individuals will look for diagnostic information regardless of the positive or negative implications for themselves and regardless of whether the information justifies or negates existing self-conceptions. Self-assessment is concluded by seeking feedback about performance, working on tasks that allow feedback, preferring diagnostic tasks, and blaming oneself for failure. The self-verification motive enables people to maintain consistency between their self-concept and new information related to themselves (Sedikides & Strube, 1997). This is inferred by behaviours such as preferring self-consistent information and choosing partners for interaction who verify a person's self-image. Self-improvement leads individuals to improve their nature, abilities, skills, health status, or well-being (Sedikides & Strube, 1997). This motivates individuals to look for genuine personal improvement and growth. This motive is inferred by behaviours such as an active approach in overcoming problems, finding information that enables improvement, practicing existing skills, and choosing to work on remedial tasks that reduce deficiencies.

In this regard, self-motivation is an effort to improve oneself in nature, condition, ability, skill, health or well-being status through self-assessment, and self-verification of information provided by others to improve oneself. Self-motivation emphasises the role of the self in consciously making improvements to one's condition. Therefore, the first stage requires individual self-awareness to make improvements. Improvements are performed based on the results of self-assessment and or the results of information and verification from others. Self-improvement efforts exist in the context of achieving better quality or categories. In other

words, an improvement effort is carried out through self-regulating mechanisms that begin with individual awareness and desire to improve the quality of the self or the results to be achieved.

According to the social cognitive theory model of self-regulation, known as cyclical self-regulation, the model consists of three cyclical phases (Zimmerman & Moylan, 2009). The first phase is forethought, which leads to the learning process. It also leads to a source of motivation that precedes the learning effort and influences students' preparation and willingness to self-regulate their learning (a self-regulated learning process). In the second phase, the performance phase involves processes that occur during the learning process and will affect concentration and performance. The third phase (the self-reflection phase), involves the final process that follows the efforts of a learning process but influences students' reactions to existing experiences. This is feedback on the learning activities undertaken by students. These self-reflections, in turn, influence consideration about the next learning effort, which completes the self-regulation cycle. It should be noted that the length of the student self-regulation cycle will vary based on the frequency and time of feedback. This depends on outside sources of information, such as receiving grades, environmental reactions and so on. It also depends on personal sources, such as the results of progress from learning activities recorded in a diary, and so on.

This research only focused on the first phase (forethought) by looking at the relationship between the ability to motivate oneself and the implementation of self-regulated learning. The ability to motivate oneself consists of self-efficacy, *outcome expectations*, *task interest/value*, and goal orientation (Zimmerman & Moylan, 2009). Another phase was added in this study, namely the activation of knowledge (Hattan, Singer, Loughlin, & Alexander, 2015). Self-efficacy, which is defined as a belief about one's ability to learn or work at a certain level, can predict student learning goals and existing strategic choices (Zimmerman, Bandura, & Martinez-pons, 1992). Thus, in the performance phase, the determination of self-efficacy can have a direct influence through choices of activities, efforts made, and perseverance in student learning. Positive perceptions about students' self-efficacy can influence the use of learning strategies in various ways. These include reading, writing, managing time efficiently, the ability to resist temptations and detrimental peer pressure, and the ability to assess self-development.

The second important source of self-motivation is the outlook of outcome expectations. This refers to beliefs about the ultimate goal of performance achieved by someone, such as receiving social recognition from the surrounding environment or getting a desired social position. Expectations of student outcomes depend on students' knowledge or awareness of the possibility of various outcomes to be obtained. These include potential compensation, the quality of life experienced, and the social benefits of professional activity. One of the positive

effects of an interesting result is an established nature. The expectations of such an outcome are also heavily influenced by beliefs in self-efficacy. For example, a student might believe that having business accounting skills is beneficial. However, without a sense of confidence in their ability to learn these skills, they will not be motivated to enrol in a college accounting course. Thus, students' motivation to manage the implementation of self-regulated learning can be influenced by various motives, such as confidence in self-efficacy and outcome expectations (Zimmerman & Moylan, 2009).

The third source of student self-motivation is students' interests in or judgments of task values. This motif can be seen in the reaction of a student who either likes or dislikes a task because of its inherent nature and not because of its instrumental quality in obtaining other results. Motivation like this is often understood as being intrinsic (Deci & Ryan, 1985). Such motives are often understood as interest values, which are described as being the same motives as interests. They are seen as cognitive and affective tendencies to re-engage with certain class objects, activities, or ideas (Hidi & Renninger, 2006). Thus, there is no doubt that the process of analysing student assignments is associated with a source of motivation.

The fourth source of motivation is the attitude or tendency of students towards goal orientation. This happens through the involvement of students' beliefs or feelings about the purpose of a learning process. Students who continue to focus on being positive towards the goals of a learning process will try to improve their competencies through the learning process. Hence, students who maintain a strict understanding of the performance of goal orientation will try to protect their competency through favourable comparisons with the performance of others. Thus, the orientation of students' learning goals comes from beliefs that their abilities and skills can be gradually improved and modified. Orientation regarding performance goals comes from students' beliefs that their mental abilities are permanent (Zimmerman & Moylan, 2009).

The fifth source of self-motivation is the activation of knowledge. The activation of prior knowledge in learning is very important in student learning processes, often triggering the emergence of learning behaviour. In other words, activation of prior knowledge can add to students' self-motivation in carrying out self-regulated learning. Since prior knowledge is placed at the centre of all learning processes, it is even stated that meaningful learning will occur when students assimilate new information into the existing knowledge structures (Ausubel, 1968). Many experts have stated and emphasised the importance of prior knowledge in the learning process. The importance of prior knowledge for learning has been well documented in theoretical and empirical research for more than two centuries (Hattan et al., 2015).

Self-motivation can be performed by increasing positive personal values to increase self-confidence. This creates feelings of being able, intrinsic interest, orientation toward learning goals, expectations of results, and the ability to activate prior knowledge. All of these abilities encourage the implementation of self-regulated learning activities. These five abilities are provisions for the implementation of self-regulated learning activities. The greater one's confidence in carrying out academic tasks, the easier those tasks are to carry out. As a result, an individual will be motivated to do a task merrily without pressure, so it is easier to organise activities. The higher the expectation surrounding the results obtained, the greater the drive to obtain the results. This means a greater effort is made by finding the most effective behavioural strategies. The greater an individual's interest in self-activities or tasks, the more comfortable the individual will be in carrying out their duties. The more positive the self-attitude towards learning goals, the easier and more relaxed the individual in doing the work, and the easier the behavioural control. Moreover, the more experience and knowledge possessed, the more convinced the individual will be in carrying out tasks, making it easier for individuals to manage their behaviour more effectively.

Every aspect of self-motivation has a theoretical relationship related to the implementation of students' self-regulated learning. However, the impact of each aspect of motivation in the implementation of self-regulated learning is not well known. Therefore, based on the description above, this study will reveal the significance of self-motivation, which includes self-efficacy, intrinsic interest, goal orientation, outcome expectations, and activation of knowledge in the implementation of self-regulated learning.

Research Methodology

This study applied a quantitative research approach to a type of correlational research. The independent variable was in the form of self-motivation, consisting of self-efficacy, intrinsic interest, goal orientation, outcome expectations, and activation of knowledge. The dependent variable was self-regulated learning. The instrument for measuring these two variables was a self-motivation scale developed by researchers based on self-motivation theory. It was a synthesis of ideas from Zimmerman & Moylan (2009) and Hattan, Singer, Loughlin, & Alexander (2015). The self-motivation scale consisted of five subscales: self-efficacy, outcome expectations, task interest/value, goal orientation, and activation of knowledge. The forethought in the self-regulated learning scale was adopted from the Taiwanese Short Self-Regulation Questionnaire: TSSRQ, and the Self-Regulated Learning at Work Questionnaire: SRLWQ (Fontana, Milligan, Littlejohn, & Margaryan, 2015). The scale of self-motivation met the validity requirements of 21 items, with Cronbach's alpha showing that all items of the scale met the reliability requirements ($rtt = 0.903$). Forethought in the self-regulated learning scale consisted of 17 items, and Cronbach's alpha met the reliability requirement ($rtt = 0.909$). Therefore, the scale of self-motivation and self-regulated learning met the requirements of

validity and reliability, so the data could be used for this research. The sample of the study was 100 students of educational psychology and the guidance department in the faculty of education, Universitas Negeri Yogyakarta. There were 30 male and 70 female students. The data analysis techniques utilised were the correlation and multiple regression techniques.

Results and Discussion

Results
Based on the data obtained from the scale of self-motivation, the lowest score was 62 and the highest score was 83. Hence, the average score obtained was 72.66, with a standard deviation of 4.96. The distribution of the data is presented in Table 1.

Table 1
The Score Distribution of Self-Motivation Ability

No.	Interval	Absolute Frequency	Relative Frequency
1.	81.5 – 85.5	6	60.00 %
2.	77.5 – 81.5	14	14.00 %
3.	73.5 – 77.5	19	19.00 %
4.	69.5 – 73.5	34	34.00 %
5.	65.5 – 69.5	21	21.00 %
6.	61.5 - 65.5	6	6.00 %
		100	100.00 %

Based on the data gained from forethought in self-regulated learning, the lowest score was 40 and the highest was 61. Hence, the average score obtained was 47.68, with a standard deviation of 4.77. The distribution of the data is presented in Table 2.

Table 2
The Score Distribution of Self-Regulated Learning

No.	Interval	Absolute Frequency	Relative Frequency
1.	59.5 – 63.5	3	30.00 %
2.	55.5 – 59.5	3	3.00 %
3.	51.5 – 55.5	18	18.00 %
4.	47.5 – 51.5	18	18.00 %
5.	43.5 – 47.5	37	37.00 %
6.	39.5 - 43.5	21	21.00 %
		100	100.00 %

Meanwhile, hypothesis testing was conducted to find the relationship between students' abilities to self-motivate and their abilities to carry out self-study learning. The correlation showed self-motivation in the implementation of self-regulated learning to be 0.351 (p = 0.001), with a contribution of 23.234%. This means that the null hypothesis (Ho) is rejected and the hypothesis (Ha) is accepted. In other words, there is a significant relationship between student's abilities to self-motivate and their abilities to carry out self-regulated learning.

However, further analysis of these variables obtained some information. Self-motivation (which consists of self-efficacy, intrinsic interest, goal orientation, outcome expectations, and activation of knowledge), showed a variety of influences that are unique in determining the ability of students to carry out self-regulated learning in the educational psychology and guidance department of the faculty of education at the Universitas Negeri Yogyakarta. This is shown in more detail in Table 3.

Table 3
The Value of Contribution and Partial R-square of the Aspect of Self-Motivation Ability

No.	Self-Motivation Aspect	The Contribution	Partial R-Square	P
1.	Self-Efficacy	19.271	0.206	0.042
2.	Intrinsic Interest	0.535	0.015	0.881
3.	Goal Orientation	27.087	0.549	0.000
4.	Outcome Expectations	1.181	-0.014	0.890
5.	Activation of Knowledge	2.048	0.048	0.646
		50.122		

The analysis showed that the feeling of self-efficacy correlates with the implementation of self-regulated learning activities with r values of 0.206 and p = 0.042. Likewise, goal orientation has a very strong correlation of 0.549 and p = 0.000. Intrinsic interest, outcome expectations, and activation of knowledge do not significantly correlate with the implementation of self-regulated learning activities with p values greater than 0.05. The orientation of goal contribution was the higher (27.087%), followed by contributions from self-efficacy of (19.271%). The other sub-variables were intrinsic interest (0.535%), outcome expectations (1.181%), and activation of knowledge (2.048%).

Discussion

Based on the descriptive results, it can be seen that the average ability of students to motivate themselves is 72.66 in the medium category, while the average implementation of self-regulated learning was 47.68 in the moderate category. Concerning self-motivation and self-regulated learning, students were in accordance. These conditions can be seen in the results of

the correlation that show self-motivation with the implementation of self-regulated learning correlating by 0.351 (p = 0.001) with a contribution of 23.234%. In general, the ability to self-motivate correlates with the implementation of self-regulated student learning. Overall self-motivation was correlated with self-regulated learning, which had been significantly demonstrated to researchers (Ahmed, 2017), and even specifically for students (Cetin, 2015).

Through the results of the hypothesis test, it can be seen that one of the dominant factors determining the implementation of self-regulated student learning at the educational psychology and guidance departments of the faculty of education at the Universitas Negeri, Yogyakarta is self-motivation. This is in accordance with several previous studies showing that motivation is an important factor in the process of implementing self-learning (Pintrich & Groot, 1990; Rozendaal et al., 2003). Additionally, motivation is indeed one of the most important things in the learning process (Woolfolk, 2016). Motivation is a stimulant factor directing and controlling the learning process. As a stimulant factor, motivation is the cause of learning activities. The absence of motivation is tantamount to the lack of energy that produces the process. As an enhancer, director, and keeper of behaviour, motivation has the objective to determine the sustainability of the learning process. It is closely related to self-motivation, ranging from beliefs about carrying out learning activities to beliefs about the various benefits or advantages that might be obtained when carrying out these learning activities. Motivation has also functioned as a controller of the learning process. It is very important, especially when individuals learn to face various obstacles or problems. At such times, individual endurance and perseverance are often demonstrated in their performance. The ability of individuals to demonstrate these processes is strongly influenced by the ability of individuals to ensure the implementation of the learning process. In other words, the focus of learning activities will guarantee its sustainability through individual self-control.

Consequently, self-motivation is a factor inherent in individuals. It means that learning is indeed related to the motives of the individual. Motives that can encourage the implementation of the learning process and include the existence of strong and fundamental reasons why an individual undertakes learning activities (Deshon & Gillespie, 2005). It can also establish confidence in the ability of the self to be able to complete a task as well as possible (Zimmerman & Martinez-pons, 1990; Lodewyk & Winne, 2005). From this perspective, it becomes clear why there are only two dominant components in determining the implementation of self-learning from self-motivation: learning goal orientation and self-efficacy.

The intention of learning goal orientation is for individuals to have rational awareness of learning, meaning that there is a known reason why individuals are conducting learning activities. Qualitatively, students generally state that they learn because of the consequences of their status as students. Others also state learning is a form of duty or obligation that must

be performed. Students who have rational learning or goal orientation can motivate themselves (Deshon & Gillespie, 2005). In accordance, it appears that the awareness of learning is inherent in the individual (self) as a motivational constituent for learning activities.

Likewise, self-efficacy, which is interpreted as a constituent of individual behaviour that shows confidence or understanding of abilities (Bandura, 1997), will facilitate individuals in carrying out their activities. It has been proven that a deep belief in self-efficacy influences perceptions about the structure of learning tasks (Lodewyk & Winne, 2005). In other words, clarity about the structure of a task is a factor that should be taken into account in the implementation of self-regulated learning. The clarity of task structure becomes dominant because it can be a motive for the implementation of learning activities.

Intrinsic interest is defined as having a positive interest in academic work. Outcome expectation is limited to beliefs about the ultimate usefulness or tendencies of performance and the activation of knowledge in the form of individual knowledge characteristics. These are used as a reference for completing academic tasks and do not become dominant as components of self-motivation. This could be due to differences between theoretical reference sources (Wangid, 2006) and research subjects.

Outcome expectations and activation of knowledge are essentially high-level abilities because they include cognitive and metacognitive abilities (Cetin, 2015). Self-regulated learning consists of three main components: cognition, metacognition, and motivation (Schraw, Crippen, & Hartley, 2006). Cognition includes the skills needed to encode, improve notes, and remember information. Metacognition includes skills that enable students to understand and monitor their cognitive processes. Motivation includes beliefs and attitudes that influence the use and development of cognitive and metacognitive skills. Each of these three components is mandatory, but it is not adequate if each is mastered independently or lacks another in carrying out self-regulated learning. For example, students who have cognitive skills but no motivation do not reach the same performance level as individuals who have skills and motivation. Similarly, those who are motivated but lack the required cognitive and metacognitive skills often fail to reach a high level of self-regulation. Therefore, the insignificant correlation between the expectation and activation of the outcome of knowledge and the implementation of self-regulated student learning is caused by non-linear relationship behaviour. However, with the three components (intrinsic interest, goal orientation, and activation of knowledge), the relationship and the contribution are still very small, so regarding sub-variables, the correlation in this study is not significant.

Conclusion

The results showed that the ability to motivate oneself was significant in the process of forethought in self-regulated learning. However, not all aspects of self-motivation have a significant impact on forethought in the implementation of self-regulated student learning. Goal orientation had the biggest impact. An understanding of goal orientation played an important part in the learning process. Hence, whether something is useful or not in learning activities greatly determines the activities involved in the learning process. The self-efficacy to carry out tasks or learning activities also had a relationship with forethought in self-regulated learning. The greater the extent to which an individual has the ability of self-efficacy, the better a task will be carried out. Activation of knowledge, outcome expectations, and intrinsic interests/values did not have a significant relationship with forethought in students' self-regulated learning. In other words, knowledge about learning goals is an important part of encouraging self-regulated learning. Moreover, self-efficacy had the role of arousing psychic energy to act according to learning needs and responsibilities.

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