RESEARCH NEBULA

An International Refereed, Peer Reviewed & Indexed Quarterly Journal in Arts, Commerce, Education & Social Sciences

















EMOTION REGULATION AS A PREDICTOR TO ENHANCE THE SELF-REGULATED LEARNING AMONG LEARNERS



https://orcid.org/0000-0001-8183-3378

https://orcid.org/0000-0003-4167-731X

LOPAMUDRA BISWAL

Research Scholar, School of Education, Pondicherry University, Pondicherry

lopamudrabiswal35@gmail.com

PROF. K. CHELLAMANI

Dean, School of Education, Pondicherry University, Pondicherry

Received: 09.05.2024 Reviewed: 12.05.2024 Accepted: 15.05.2024

ABSTRACT

Students experience a variety of emotions that may arise within or from outside the learning environment. These emotions may be beneficial or unfavorable to students towards achieving the learning goals. Specially, the negative emotions are not only target on switching the attention and lowering the motivational level of the students but also influence their self-regulatory ability in the learning process. Many research studies have been conducted in the field of self-regulatory process and found that emotions are significantly related to the various phases of the self-regulated learning process. The learners need to be skilled in intensifying and maintaining the positive emotions as well as reducing or controlling the negative emotions to become the effective self-regulatory learners. The learners must develop the competencies to manage their emotional responses or behaviors efficiently. The emotion regulation aptitudes develop the abilities of self-monitoring, personal control, self-esteem and coping with failure among the learners which are the important dimensions of self-regulatory learning. The author reflects upon the importance of emotion regulation as well as different processes of emotion regulation along with their implications to enhance the self-regulated learning ability among the learners.

KEY WORDS: Emotion, Emotion Regulation and Self-regulated Learning

Introduction

Emotions as complex systems that develop to prepare the individuals to act in response to the environmental stimuli and challenges. Students experience the variety of emotions that may arise within or from outside the learning environment. These emotions may be beneficial or unfavorable to students towards achieving the learning goal. According to cognitive neuroscientists and educationists believe that learning occurs due to interaction among cognitive, emotional, and physiological elements. They are intimately entangled with various cognitive processes like

attention, motivation and cognition. Emotions are profoundly associated with the learning process (OECD,2007). According to R Pekrun (2007) emotions are not only target to switch the attention and motivational level of students but also influence their self-regulatory ability in the learning process. The emotions can be positive or negative emotions and they may be intense and frequent. Positive emotions like joy, happiness, hope, excitement, enthusiasm, and passion boost the energy level of learners to learn the concept perfectly and joyfully. These emotions support the learners to maintain the motivational level, self-control, developing the

RESEARCH NEBULA

An International Refereed, Peer Reviewed & Indexed Quarterly Journal in Arts, Commerce, Education & Social Sciences



working skills and activating the cognitive factors to enhance their success in academic area. However negative emotions including fear, depression, anxiety, impatience and guilt impact on cognitive process and lead to decrease the self-regulatory skills. The academic emotions such as achievement emotions and epistemic emotions that directly or indirectly impact upon academic success of students. The learners need to be skilled in intensifying and maintaining positive regulation as well as reducing or controlling negative emotions to become the effective self-regulatory learners. The learners must develop the competencies to manage their emotional responses or behaviors efficiently. These emotional regulation aptitudes develop the abilities of self-monitoring, personal control, selfesteem, coping with failure, task preparation and executive skills among the learners which are the important dimensions of self-regulatory learning. So, the regulation of emotions in the educational context is acting as a crucial role for learners to prepare themselves as a self-regulatory learner which leads to get success in their academic life.

Self-Regulated Learning (SRL)

This is a multifaceted process through which learners are actively monitor, control and regulate their cognition, motivation and behaviour to attain academic goals. This process is not just about absorbing information, it is about becoming proficient at managing one's own learning process. Self-regulated learning empowers to become more independent, sensible, and effective learners. By developing these skills, students equip themselves with lifelong learning capabilities which are very essential for getting success in various academic domains. (Pintrich, 2000). The three processes such metacognition, motivation and behavioral features are the essential processes for a Self-(Zimmerman, 1986). regulated learner metacognitive process the learners are involved in making the plan, setting the goal, self-monitoring and self-evaluation process; the motivational process involves the learner's ability to develop the self-efficacy skill and intrinsic interest to complete a task; the behavioral process involves the learners to generate and shape the environment in order to achieve the goal. These three processes involve collectively to form a cycle which contains the three phases of self-regulated learning. The first phase is the forethought phase related to situation analysis, planning, developing interest and motivational belief. The second phase is the performance phase where the actual efforts are made for learning. The learners improve the self-control, self-monitoring, and self-observation processes to progress the learning activity. The third phase is a reflection phase where the learners assess their own learning process. At this stage students judge their own performance and reflect upon how to improve themselves to get better results.

Many research studies are conducted in the field of the self-regulatory process and found that during the learning process, emotions are significantly related to the various phases of the self-regulated learning process (Pekrun et al., 2002). The learner who possesses self-regulatory skills are good academic performance. The processes such as planning, monitoring, elaboration, and critical thinking are directly related to influence of positive emotions (Pekrun, 2017). On the other hand, negative emotions emphasize the rote memorization and recall thinking in self-regulatory learning (Pekrun, 2017). It is found that very few research studies have been carried out to investigate the influence of emotion regulation in self-regulating learning in present date (Taub et al., 2019). Therefore, the utmost importance needs to be given how students can maintain the positive emotions and control or reduce negative academic emotions to activate the cognitive processes to become competent learners.

Emotion Regulation

This is a dynamic process related to the internal and external processes through which the individuals evaluate their emotions in each setting and adjust and act in response to emotions and their interrelated behaviors. The individuals can control their emotional behaviors to express themselves

RESEARCH NEBULA

An International Refereed, Peer Reviewed & Indexed Quarterly Journal in Arts, Commerce, Education & Social Sciences



acceptably. Emotion regulation occurs consciously or unconsciously, and it is not just focused on reducing negative emotions, but also on maintaining the positive emotion. One can regulate own emotion before or after the arising of emotion at emotion release point. According to Liu Haiyan and Guo Dejun, currently, emotion regulation strategies are classified into "way-of-coping" and emotional processes. In terms of coping styles, one strategy is problem-focused coping concerned with changing external situations. and latter is emotion-focused coping, focused on changing internal things. In terms of emotional processes, Gross (1998) proposed a process model of emotion regulation where the emotion regulations are divided according to their processes.

Emotion Regulation as a Predictor to Enhance the Self-Regulated Learning

The emotional state of learners' impact upon their academic goals through a self-regulated process. (Gaeta et al., 2021). Positive emotions motivate the learner to choose the learning strategies to achieve the learning objectives, however negative emotions negatively associated to self-regulated learning (Pekrun et al. 2011). Wolters (2003) defines that during the process of emotion regulation, learners develop the ability of self-aware and selfmonitoring. The learners also able to evaluate and modify the intensity of emotional responses that hinder the learning. These abilities are significant dimensions of self-regulated learning that direct the intellectual and emotional processes of students leading to control over the behaviors during the learning process (Sitzmann and Ely, 2011).

Many researchers have stated that there is a significant association between academic emotion, self-regulated learning, and academic achievement. Artino and Jones (2012) have stated that when the learners enjoy the learning process, significantly positively correlates with elaboration and metacognition which are self-regulated behaviors. This process is facilitated due to the substantial effect of academic emotions leading to academic achievement (Mega et al., 2014). Webster and

Hadwin (2015) has stated that students adopt the varieties of emotion regulation strategies depending on their course. Students regulate their emotions more efficiently according to their favorite courses. (Deny, et el. 2014). The students who are using more adaptive emotion regulation conquer with more personal control and self-regulated behaviour that become the prime factors for academic achievement. (Punmongkol, 2009).

These studies are providing the primary insight towards understanding the impact of emotional behaviour in self-regulatory aspects of learning. Literature on association of positive emotion and various dimensions of self-regulated learning are found. But a few studies have been conducted regarding the effect of emotion regulation on self-regulated learning (Chen, et al., 2020). So, these two domains need immediate attention as these two are the most important predictors to enhance the academic performance of learners.

The Relationship between Emotion Regulation Strategies and Self-Regulation with Reference to Process Model of Emotion Regulation

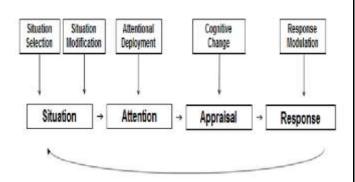
The well-known psychologist in the field of emotion and emotion regulation J J Gross (1998b) has proposed the Process model of emotion regulation. This model provides a basis for categorizing processes of emotion regulation. This model proposed that there are different ways of regulating emotions at different stages of the process and different outcomes can be produced. There are five regulatory points in the process at which individuals apply emotion regulatory strategies to intervene to modify their emotional trajectory. According to this model, learners can regulate the emotion before an emotion is generated an emotion-inducing situation selecting (situation selection) then they modify the situation according their convenience (situation modification), deploy attention (attentional deployment) and changing the connotation of the events (cognitive change). In response modulation, the emotion is already triggered, and it is regulated by controlling the emotionally expressive response.

RESEARCH NEBULA

An International Refereed, Peer Reviewed & Indexed Quarterly Journal in Arts, Commerce, Education & Social Sciences



Emotion Regulation



Process model of Emotion Regulation

(**Source:** Emotion Regulation: Conceptual Foundations by JJ Gross and R A Thomson)

Situation Selection

Situation selection involves the individuals making decisions to choose or avoid the situations (activities, places, or people) when they assume the emotional impact of these situations. This family shapes the emotional trajectory points at the earliest possible time. This is the process in which learners motivate themselves to face the situation and arouse attention and interest. Two situation selection strategies that a person uses in controlling the situation are confrontation and avoidance. Confrontation means the individuals avoid all the negative emotions and motivate themselves to face the situation to bring long-term happiness and mental health (Aldao, et el., 2010). In this process, the learners give interest and pay attention to creating appropriate environmental situations that focus on gaining knowledge and accumulating better thinking and practical experience. (Zohu,2022). Another strategy is avoidance which means that individuals escape from the situation as a whole. It is important to control the cognition behaviors and other contextual factors that hamper the self-regulatory ability of a learner in order to achieve the academic goal. (Schunk, 2005).

Situation Modification

The second family of regulatory processes is situation modification. Situation modification

involves an individual incorporates the strategies to modify the event to alter its emotional effect. In this regulatory point, the learners find out the cause of failure and analyze the situation and prepare the plans to achieve desired objectives for betterment of carrier. (Clark, 2001). Sometimes, the learners get frustrated due to negative environmental circumstances, they rather lose hope, being irritated and upset choose to be aware of what they lag in their academic career through gathering and analysis of shreds of evidence. Pang Weiguo (2001) argues that students cope with the environment by changing barriers, processes, and experiences and develop the self-efficacy ability to decide whether to carry out the learning task and it is an expression of self-confidence. The positive emotion develops the self-efficacy of students which enhances their willingness to achieve learning expectations.

Attentional Deployment

Attentional deployment is the process of focusing an individual's attention on a particular task. Zhang Manhua and Liu Qing stated that to improve the attention and academic performance of students it is very important to cultivate and maintain good attention quality. Distraction is one of the emotion regulation strategies that redirects attention from a situation. The learners can distract their minds from an emotion-evoking situation to a neutral situation. Ruminating thoughts may put the learners in a negative state of mind. The learners lose the selfcontrol ability because when the experience negative feelings like frustration, depression, anxiety, and boredom. they become depressed and they are likely to remember more negative responses as well as negatively interpret the situations also. Ruminating thoughts need to be controlled as these thoughts are directly affect the self-regulated behaviors of learners. Mindfulness involves purposefully paying attention to both internal and external world in a non-judgmental way. Many studies found that mindful attention increases the concentration by decreasing negative thoughts (Hofmann et al., 2010). When Learners adopt this strategy enhances the power of attention

RESEARCH NEBULA

An International Refereed, Peer Reviewed & Indexed Quarterly Journal in Arts, Commerce, Education & Social Sciences



leads to optimizing their learning outcomes. Students with positive emotions self-analyze the factors contributing to their performance. This helps them to develop a growing mindset and take ownership of their own learning. Based on self-reflection, students may revise their goals or action plans to better align with their evolving understanding and aspirations.

Cognitive Change

This family refers to modifying the way of thinking by the persons to change their feel. This process can be automatic or effortful. Cognitive change can be applied to peripheral situation. When the learners attend the interview rather to feel nervousness, they may think that it's an opportunity for them to gain experience which enhances the self-regulatory behaviors. One form of cognitive change is reappraisal. The self-efficacy appraisal gains level of confidence among learners to deal with the situation (Bandura, 1997). The subjective stress lower down when the self-efficacy level is high. However, if a learner increases the use of reappraisal strategy, it increases the positive emotion experiences and self-esteem with reducing the anxiety, fear and depression. (Gross, 2014).

Response Modulation

In the emotion-generative processes, this process arises in late after the response tendencies have developed. This process targets the experiential means the learners share their depression to other or sometimes watching tv or travelling to decrease the feelings of anxiety. In a self-regulated learning, the learners have faced many difficulties. In this situation this strategy can be helpful. This strategy might be physiological means the learners may perform various joyful activities to lower the anxiety, or sometimes act destructively to neutralize the tension. Sometimes this strategy may be behavioral component of emotional response. Sharing the emotion, aggressiveness and expressive suppression strategies are considered as the most central strategical forms of response modulation. Sometimes expressive suppression is influencing to inhibit the behavioral expression of unwanted

emotions which considered as important factor in self-regulated learning. (Aldao et al., 2010).

Relationship between Emotion Regulation and Self-Regulated Learning

The learners who acquire self-regulatory skills possess the ability to maintain the positive emotional behaviors and control the negative thoughts that arise in learning. Learners with high emotional self-awareness contain the skill of selfmonitoring and self-regulated behaviour which are important dimensions of self-regulation (Ranganathan and Kumar, 2020). It means that learners with high emotion control can encounter difficulties and face these problems with zeal and confidence and never be overconfident while achieving success. The students with awareness control reflect upon their own potentialities to selfassess the learning progress and find out the reason behind the actual distractions in learning process from internal or external sources. When the students evaluate their abilities and skills, based on that they can set their learning goals and prepare themselves, but the thing is if they fail to do so the students with emotion control abilities can apply various emotional regulation strategies to solve problems. The learners with high boredom control employ the learning strategies to enhance the metacognition process such as logical thinking, problem-solving ability and critical thinking which are the important aspects of self-regulation process. Research has demonstrated that students with strong emotion regulation skills use more metacognitive strategies during learning as well as reduce the negative to enhance the self-regulated behaviours in their academic careers. (Price et al., 2018).

Conclusion

In the present context, there is a notable growth of research on the cognitive area emotion and its influence in the field of education. Many research studies have been conducted in the field of the self-regulatory process and found that during the learning process, positive emotions are significantly related to the various phases of the self-regulated

RESEARCH NEBULA

An International Refereed, Peer Reviewed & Indexed Quarterly Journal in Arts, Commerce, Education & Social Sciences



learning process. The learner who possesses selfregulatory skills is good at academic performance. So, the regulation of emotions in the field of education is an important steppingstone for learners to prepare themselves as a self-regulatory learner which leads to success in their academic life. The accepted process model of emotion regulation consists of five stages in which an individual adopts various emotion regulation strategies to reduce the emotional responses which enhances the selfregulatory behaviors. It is found that a few research studies have been carried out to observe the association between emotion regulation and various dimensions of self-regulating learning in the present date. Therefore, it is of the utmost importance need to be given how students can maintain, control, or reduce positive and negative academic emotions for activating cognitive processes to become a competent learner.

REFERENCES

- Aldao, A., Nolen–Hoeksema, S., & Schweizer, S. (2010). Emotion Regulation Strategies Across Psychopathology: A Meta-analytic Review. *Clinical Psychology Review*, 30(2), 217–237.
- 2. Bandura, A. (1977). Self-Efficacy: Toward a Unifying Theory of Behavioral Change. *Psychological Review*, 84(2), 191–215.
- 3. Clark, D. M. (2001). International handbook of social anxiety: Concepts, research and interventions relating to the self and shyness, *John Wiley & Sons Ltd*, 405–430.
- 4. Gross, J. J., & Thompson, R. A. (2007). "Emotion Regulation: Conceptual Foundations", *The Guilford Press*, 3-24.
- 5. Hofmann, S. G., Sawyer, A. T., & Witt, A. A (2010). The Effect of Mindfulness-based Therapy on Anxiety and Depression: A Meta-analytic Review. *J. Consult. Clin. Psychol.* 78(2), 169–183.
- 6. Jacobson, N. S., Martell, C. R., & Dimidjian, S. (2001). Behavioral Activation Treatment for Depression: Returning to Contextual Roots.

- Clinical Psychology: Science and Practice, 8(3),255–270.
- 7. Killingsworth, M. A., and Gilbert, D. T. (2010). A Wandering Mind is an Unhappy Mind. *Science*, 932–932. doi: 10.1126/science.1192439.
- 8. Peistaraite, U. & Clark, T. (2020). emotion regulation processes can benefit self-regulated learning in classical musicians. *Frontiers in Psychology*. Vol 11. doi10.3389/fpsyg.2020.568760.
- 9. Pekrun, R., and Linnenbrink-Garcia, L. (2012). Academic Emotions and Student Engagement, Handbook of Research on Student Engagement. *Springer*, 259–282.
- 10. Pekrun, R., Lichtenfeld, S., Marsh, H. W., Murayama, K., & Goetz, T. (2017).Achievement **Emotions** and Academic Performance: Longitudinal Models Reciprocal Effects. Child Development, 88(5), 1653-1670. doi: 10.1111/cdev.12704
- 11. Pintrich, P R. (2000). The Role of Goal Orientation in Self-Regulated Learning, Handbook of Self-regulation. *Academic Press*. 451–502. https://doi.org/10.1016/B978-012109890-2/50043-3.
- 12. Punmongkol, P. (2009). The Regulation of Academic Emotions. *University of Sydney*, Australia.
- 13. Schunk, D. H.(2005). Self regulated learning: The educational legacy of Paul R. Pintrich. *Educational psychologist*, 40,85-94.
- 14. Weiguo, P. (2001). On student self-directed learning. *Journal of East China Normal University* (Educational Sciences), 2001, (02):78-83.
- 15. Zhou, C. (2022). The application of emotion regulation strategy in classroom teaching. *Highlights in Business, Economics and Management. vol.* 4. 299-310.
- 16. Zimmerman, B. J. (2011). Motivational sources and outcomes of self-regulated learning and performance, *Routledge/Taylor & Francis Group*, 49–64,