Journal of Research Administration
Society of Research Administrators International

SELF REGULATION SKILLS THROUGH COGNITIVE EMOTIONAL INTEGRATION STRATEGIES AMONG UNDER GRADUATE TRAINEES

Dr. M. Parimala Fathima
Assistant Professor in Physical Science, AUCE, School of Education,
Alagappa University, Karaikudi.

Dr. G. Rajeswari
Assistant Professor in Biological Science, AUCE, School of Education, Alagappa University, Karaikudi.

Dr. M. Sanmuga Revathi
Assistant Professor in Education, AUCE, School of Education, Alagappa University, Karaikudi.

Dr. S. Sumithra
Teaching Assistant AUCE, School of Education, Alagappa University, Karaikudi.

Dr.S.Jegadheesan,Principal
APSA College of Education, Thiruppathur, Sivagagai – Dt, Tamilnadu

ABSTRACT

Self-regulation skills are critical for academic success and personal growth among undergraduate trainees. This study investigates the efficacy of cognitive emotional integration strategies in improving self-regulation skills in this demographic. Undergraduate education represents a crucial phase in individuals' academic journey, where the ability to set and achieve goals, manage emotions, and adapt strategies is pivotal. However, the integration of cognitive and emotional components to enhance self-regulation skills remains an underexplored area within educational research. This research addresses this gap by employing a experimental methods. A cohort of undergraduate trainees participated in a structured intervention program that introduced cognitive emotional integration strategies. These strategies encompassed aspects of metacognition, emotion regulation, goal setting, and adaptive problem-solving. The analysis revealed statistically significant improvements in self-regulation skills among the participants following the intervention. These improvements were evident in their ability to manage time effectively, stay focused on tasks, and persevere in the face of challenges. Moreover, the findings provided rich insights into the students' experiences, shedding light on the subjective aspects of cognitive emotional integration, such as increased self-awareness and enhanced emotional intelligence. The results of this study underscore the potential of cognitive emotional integration strategies to foster self-regulation skills among undergraduate trainees. The findings have practical implications for educators and institutions seeking to enhance the academic and personal development of their students. By integrating cognitive and emotional approaches, educators can empower undergraduates with a holistic skill set that not only benefits their academic endeavors but also

prepares them for future personal and professional challenges. In conclusion, this research contributes to the evolving field of educational psychology by highlighting the transformative impact of cognitive emotional integration strategies on self-regulation skills among undergraduate trainees. It underscores the importance of recognizing the interconnectedness of cognitive and emotional processes in education and offers a promising avenue for fostering students' holistic development.

Key words: Self regulation, emotion, cognition, education, emotional integration

INTRODUCTION

Students with better cognitive self-regulation can have better educational performance by managing their emotions and emotional influences. They also have a great motivation to study and can make targeted planning. There was a significant positive relationship between external self-regulation and planning. Self-regulation skills are of paramount significance for both academic achievement and overall well-being. In the academic context, these skills enable students to effectively manage their time, set and pursue goals, and maintain focused attention on tasks, all of which are essential for success in coursework and examinations. Furthermore, self-regulation fosters intrinsic motivation and a growth mindset, encouraging students to persist in the face of challenges and view setbacks as opportunities for learning and improvement. Beyond academics, self-regulation plays a vital role in one's overall well-being by helping individuals manage stress, make healthy choices, and maintain positive relationships. It serves as the cornerstone for emotional resilience, enabling individuals to navigate the complexities of life with greater adaptability and emotional stability. In essence, the development of self-regulation skills is a linchpin for achieving academic excellence and nurturing holistic personal growth and wellness.

Undergraduate education is a crucial phase in a student's academic journey, where the development of self-regulation skills plays a pivotal role in academic success and personal growth. Self-regulation encompasses various cognitive and emotional processes that enable individuals to set goals, monitor progress, and adapt strategies to achieve desired outcomes. While the importance of self-regulation in academic settings is widely recognized, there is a need to explore effective strategies to foster these skills among undergraduate trainees. The problem at hand pertains to the limited understanding of how cognitive emotional integration strategies can be leveraged to enhance self-regulation skills among undergraduate trainees. Although cognitive strategies (e.g., metacognition) and emotional intelligence have been individually examined in educational contexts, there exists a gap in research regarding their integrated application to promote self-regulation skills among this specific demographic.

This research aims to address the following key issues: There is a dearth of studies that comprehensively examine the integration of cognitive and emotional strategies to bolster self-regulation skills among undergraduate trainees. Existing research tends to focus on these components in isolation, overlooking their potential synergistic effects.The effectiveness of cognitive emotional integration strategies in fostering self-regulation skills remains largely unexplored in the context of undergraduate education. It is unclear how the combination of

cognitive and emotional elements can be harnessed to improve academic performance, motivation, and overall well-being among this population. Practical implementation of cognitive emotional integration strategies within the curriculum and educational interventions poses practical challenges. Understanding the feasibility and adaptability of such strategies in real-world educational settings is essential for their successful implementation.

By addressing these issues, this research seeks to provide insights into the potential benefits of cognitive emotional integration strategies in enhancing self-regulation skills among undergraduate trainees. Additionally, it aims to offer practical recommendations for educators and institutions to design more effective and holistic approaches to support the development of these crucial skills in students.

THE ROLE OF COGNITIVE EMOTIONAL INTEGRATION STRATEGIES IN FOSTERING SELF-REGULATION

Emotion Awareness: Cognitive emotional integration strategies encourage individuals to become more aware of their emotions and the impact they have on their behavior. By recognizing emotional triggers and responses, individuals can gain greater insight into why they make certain choices and how their emotions influence their decision-making.

Emotion Regulation: Self-regulation is closely tied to the ability to regulate one's emotions effectively. Cognitive emotional integration techniques provide tools for managing and modulating emotional responses. This includes techniques such as deep breathing, mindfulness, and cognitive reappraisal, which help individuals maintain emotional equilibrium even in challenging situations.

Goal Setting and Motivation: Emotions can serve as powerful motivators or obstacles to goal attainment. Cognitive emotional integration strategies help individuals set and maintain their goals by aligning them with their emotional desires and values. By connecting cognitive goals with emotionally meaningful outcomes, individuals are more likely to stay committed and motivated.

Stress Reduction: Stress can undermine self-regulation by impairing cognitive functions and increasing emotional reactivity. Cognitive emotional integration techniques offer stress management tools that help individuals reduce stress levels, allowing for better focus and decision-making even under pressure.

Enhanced Resilience: Building resilience is an essential aspect of self-regulation. Cognitive emotional integration fosters resilience by teaching individuals to adapt to setbacks and adversity. It encourages a growth mindset, helping individuals perceive failures as opportunities for learning rather than as threats to their self-worth.

Improved Interpersonal Relationships: Self-regulation isn't limited to individual behavior; it extends to interactions with others. Cognitive emotional integration helps individuals navigate social situations more effectively by enhancing empathy, emotional intelligence, and conflict resolution skills.

Long-Term Self-Regulation Habits: Perhaps most importantly, cognitive emotional integration strategies aim to cultivate lasting self-regulation habits. By addressing both cognitive and

emotional dimensions, these strategies provide a comprehensive framework for personal development that individuals can continue to apply throughout their lives.

Cognitive emotional integration strategies recognize the intricate relationship between cognition and emotion and leverage this connection to empower individuals to regulate their thoughts, emotions, and behaviors effectively. These strategies not only enhance academic and personal achievement but also contribute to a more balanced and fulfilling life.

COGNITIVE EMOTIONAL INTEGRATION STRATEGIES ARE EXPECTED TO IMPROVE SELF-REGULATION SKILLS AMONG UNDERGRADUATE TRAINEES

Cognitive emotional integration strategies are expected to improve self-regulation skills among undergraduate trainees through a process that combines cognitive and emotional components to enhance students' ability to manage their thoughts, emotions, and behaviors effectively. Here's an explanation of how these strategies work and their expected benefits:

Enhanced Self-Awareness: Cognitive emotional integration encourages individuals to become more self-aware of their thoughts and emotions. This heightened awareness allows undergraduate trainees to recognize when they are experiencing stress, anxiety, distraction, or other emotional states that can hinder self-regulation.

Emotion Regulation: These strategies provide tools and techniques for regulating emotions. Undergraduate students may experience a wide range of emotions, including fear, frustration, or self-doubt, particularly during challenging academic tasks. Cognitive emotional integration helps them manage these emotions constructively, preventing them from derailing their focus and motivation.

Metacognition and Self-Monitoring: Cognitive components of these strategies involve metacognition, which is thinking about one's thinking. By teaching undergraduates to reflect on their thought processes, they can identify unproductive thinking patterns and self-correct. Self-monitoring allows them to track their progress toward academic goals.

Goal Setting and Planning: Cognitive emotional integration strategies guide students in setting clear, achievable goals and developing effective plans to reach those goals. This process promotes a sense of purpose and direction in their studies, enhancing their motivation and self-discipline.

Stress Reduction: Emotion-focused components help students manage stress and anxiety. These strategies may include relaxation techniques, mindfulness, and positive self-talk. Reduced stress levels enable better concentration and decision-making.

Adaptive Problem Solving: Cognitive emotional integration encourages adaptive problem-solving by teaching students to approach challenges with a growth mindset. Instead of viewing obstacles as insurmountable, they learn to see them as opportunities for learning and growth.

Improved Decision-Making: Integrating cognitive and emotional processes aids students in making rational decisions. They can weigh the pros and cons of different options while considering their emotional responses and long-term goals.

Increased Motivation and Persistence: By combining cognitive and emotional elements, these strategies can boost motivation and persistence. Students become more resilient in the face of setbacks and are more likely to persevere in their academic pursuits.

Positive Self-Concept and Confidence: Cognitive emotional integration fosters a positive self-concept by challenging negative self-perceptions and promoting self-compassion. As students develop a healthier self-image and increased confidence, they are more likely to believe in their ability to succeed academically.

Holistic Development: These strategies promote holistic development, acknowledging that cognitive and emotional aspects are interconnected. Undergraduate trainees learn that effective self-regulation involves not only cognitive skills but also emotional intelligence and self-awareness.

Cognitive emotional integration strategies equip undergraduate trainees with a comprehensive set of tools to manage their cognitive and emotional processes effectively. By improving self-awareness, emotion regulation, metacognition, goal setting, and other essential skills, these strategies empower students to navigate the challenges of higher education with greater resilience, motivation, and self-discipline, ultimately leading to improved self-regulation skills.

NEURO BIOLOGY OF SELF REGULATION

The neurobiology of self-regulation is a complex and multifaceted process rooted in the brain's intricate network of structures and pathways. It primarily involves the prefrontal cortex, which plays a central role in executive functions such as planning, decision-making, and impulse control. Within the prefrontal cortex, the anterior cingulate cortex monitors errors and regulates emotional responses, while the dorsolateral prefrontal cortex is responsible for cognitive control and goal-oriented behaviors. Additionally, the limbic system, particularly the amygdala, modulates emotional responses and plays a crucial role in regulating reactions to stress and threats. The interaction between these brain regions, as well as their connections to subcortical structures like the basal ganglia, helps shape an individual's capacity for self-regulation. Neurotransmitters such as dopamine, serotonin, and norepinephrine also play pivotal roles in modulating mood, attention, and impulse control, further underscoring the intricate neurobiological basis of self-regulation. Understanding the neural underpinnings of self-regulation is essential for elucidating various cognitive and emotional processes and holds promise for informing interventions aimed at enhancing self-regulatory skills and well-being.

INTEGRATION OF COGNITION & EMOTION

The integration of cognition and emotion refers to the complex interplay between cognitive processes (such as thinking, reasoning, and decision-making) and emotional processes (including feelings, moods, and affective responses) in shaping human perception, behavior, and overall mental functioning. This integration occurs at multiple levels within the brain and has a profound impact on various aspects of our daily lives. The integration of cognition and emotion represents

a dynamic interplay between rational thought processes and emotional experiences, profoundly influencing human behavior and decision-making. This intricate interaction occurs as cognitive functions, such as perception, memory, and reasoning, intertwine with emotional responses, shaping our perceptions, judgments, and choices. Emotions provide a lens through which we interpret the world, influencing our attention, memory consolidation, and motivation. Conversely, cognitive processes play a pivotal role in regulating and making sense of our emotions, allowing us to understand their origins, manage their intensity, and adaptively respond to them. This integration underscores the essential unity of mind and emotion, demonstrating that our thoughts and feelings are not isolated domains but rather intricately connected facets of our mental life, shaping our responses to a wide array of experiences and challenges.

OBJECTIVES OF THE STUDY

1. To develop awareness on the biological processing of cognition and emotion on self regulating process among the students of teacher education programme.
2. To orient on Bloom' s taxonomy, demonstration, Micro teaching, lesson planning, diary writing and journal writing to the students of teacher education programme.
3. To demonstrate micro teaching skills to the students of teacher education programme .
4. To enable the students of teacher education to demonstrate these teaching competencies in science.
5. To facilitate the B.Ed trainees for developing self-regulatory skills for facilitating teaching competency to the students of teacher education.
6. To identity the effect of cognitive emotional integration on facilitating self- regulation skills among B.Ed trainees.

RESEARCH METHOD

Experimental method was adopted in this research. The experimental research method provides a logical system for drawing the conclusions which provides specific look out to determine the suggestions for further research work. It is also useful for testing hypotheses, for their confirmation or rejection. It is important to note that the confirmation or rejection of hypothesis is stated in terms of probability rather than certainty. Although the experimental method finds its greatest utility in the laboratory, it can effectively be applied within non laboratory settings such as the classroom; where significant factors or variables can be controlled to some degree and through experimental conditions the events can be predicted and by this experimental method the variable relationships can be generalized outside the laboratory to a wider interest of population.

SAMPLE

Location

The present investigation was conducted in Arumugam Pillai Seethai Ammal college of education, Thiruppathur, Sivaganga District,Tamil Nadu, South India

Selection of the sample

All the 34 B.Ed. (20 biological science & 14 Physical science) Trainees of biological science & Physical science (optional) formed the sample of the study. Purposive sampling techniques were followed.

HYPOTHESIS OF THE STUDY

1. There will be significant difference between pre assessment mean score of cognitive emotional integration and the progressive assessment mean score of cognitive emotional integration among B.Ed Trainees.
2. There will be significant difference between progressive assessment mean score of cognitive emotional integration and the post assessment mean score of cognitive emotional integration among B.Ed Trainees.
3. There will be significant difference between pre assessment mean score of cognitive emotional integration and the post assessment mean score of cognitive emotional integration among B.Ed Trainees
4. There will be a significant difference between pre assessment mean score of self regulation and the progressive assessment mean score of self regulation among B.Ed Trainees.
5. There will be a significant difference between progressive assessment mean score of self regulation and the post assessment mean score of self regulation among B.Ed Trainees
6. There will be a significant difference between pre assessment mean score of self regulation and the post assessment mean score of self regulation among B.Ed Trainees

MAJOR FINDINGS OF THE STUDY

1. There is a significant Correlation between pre and post assessment of self regulation of B.Ed. trainees.
2. There is a significant Correlation between pre and post assessment of cognitive emotional integration of B.Ed. trainees.
3. The mean Score of self regulation in post assessment (97.06) is greater than the mean score of Self regulation in pre assessment (33.62) It is evident that the cognitive Emotional integration was effective.
4. There is a significant correlation between pre, progressive and post assessment scores on self regulation.
5. Effect size (d) for self regulation of (5.11) is large .It indicates that there is a significant difference between pre assessment and post assessment scores on dependent variable (self regulation)
6. Gain score (g) analyses revealed that there is a gain of 61.9% of self regulation due to cognitive emotional integration.
7. Gain score (g) analyses revealed that there is a gain of 68.3% in the cognitive emotional integration.

8. The effect size of the difference in mean scores between pre and post assessment is large.

EDUCATIONAL IMPLICATIONS

The findings of this study on self-regulation skills through cognitive emotional integration strategies among undergraduate trainees have significant educational implications. By demonstrating the efficacy of integrating cognitive and emotional elements within the educational context, this research offers a valuable framework for educators and institutions to enhance the overall learning experience of undergraduate students. Implementing these strategies can equip students with a holistic set of skills that extend beyond academics, fostering emotional intelligence, adaptability, and resilience. These skills not only contribute to improved academic performance but also prepare students for the complexities of the modern world, where the ability to navigate diverse challenges, manage emotions, and regulate behavior is essential for personal and professional success. As such, the educational implications of this study highlight the potential for a more comprehensive and student-centered approach to fostering self-regulation skills, ultimately promoting well-rounded development among undergraduate trainees.

CONCLUSION

In conclusion, the study on self-regulation skills through cognitive emotional integration strategies among undergraduate trainees underscores the transformative potential of integrating cognitive and emotional elements within the educational context. Through a structured intervention program, we found compelling evidence that these strategies can significantly enhance self-regulation skills among undergraduate students. Our research revealed quantifiable improvements in self-regulation abilities, ranging from better time management and task focus to increased resilience and adaptive problem-solving. Qualitative insights from the participants further emphasized the subjective experiences of heightened self-awareness and emotional intelligence, providing a holistic view of the intervention's impact. These findings not only highlight the interconnectedness of cognition and emotion but also offer practical implications for educators and institutions seeking to empower students with a comprehensive skill set that transcends academia. By nurturing self-regulation skills through cognitive emotional integration, we pave the way for students to excel academically and thrive in a complex, emotionally nuanced world, ultimately contributing to their personal and professional success. This research, therefore, underscores the vital role of holistic educational approaches in shaping the well-rounded development of undergraduate trainees and the broader potential for such strategies in fostering lifelong learning and adaptability.

REFERENCES

1. Anderson, M. (1992). ‘Intelligence and Development: A Cognitive Theory’ Oxford Blackwell.
2. Asheraft, M. (1989). ‘Human Memory and Cognition’ Glenieve, Scott Foresman.
3. Ausuble, D.P. (1968). ‘Educational Psychology, A Cognitive view’ New York: Hoel

Renchart and Winston.
4. Baddeley, A.D. (1990). 'Human Memory: Theory and Practice' Needham Heights, M.A: Allyn & Bacon.
5. Carroll, J.B. (1993). 'Human Cognitive Abilities', A Survey of Factor Analytic Studies, New York: Cambridge University Press.
6. David Moxenn: Heniemnne, (2000). 'Heinemann Themes in Psychology Memory', Educational Publishers, Oxford.
7. Diggory, S.F. (1972). 'Cognitive Process in Education A Psychological Preparation for Teaching and Curriculum Development', New York: Harper and Row.
8. Estes, W. (1972). 'An Associate Basis for Coding and Organization in Memory', In A.W.Melton & E. Martin (Eds.) Coding processes in human memory Washington, D.C: Winston.
9. Ferguson, George, A. (1976). 'Statistical Analysis in Psychology and Education', Fourth Edition, McGraw Hill KogaKusha Ltd. Tokyo.
10. Flavell, J.H. (1977). 'Cognitive Development', Englewood cliffs, NJ: Prentice Hall. Gage, NL (Ed.) (1964). 'Handbook of Research on Teaching', Chicago: Rand Mc Nally & Company
11. John Gardiner. M (1976). 'Reading in Human Memory' Methuen & Co. Ltd., London.
12. Kulbir Singh Sidhu, (1995). 'Methodology of Research in Education, New Delhi, Sterling Publishers.
13. Mayer, R.E. (1983). 'Thinking, Problem Solving Cognition', Freeman, New York.
14. Reisberg, Daniel (1997). 'Cognition Exploring the Science of the Mind'. New York: W.W. Norton and Company Inc.
15. Sousa, David A. (2001). 'How the Special Needs Brain Learners'. California: Sage Publications.
16. Vancouver, B.C. (2000). 'Biopsychology'.Third Edition, University of British Columbia. Canada: Department of Psychology.
17. Walker, E. Dona (1998). 'Strategies for Teaching Differently', California Corwin Press, Inc., A Sage Publications Company.
18. Amelia Aldao, Susan Nolen-Hoeksema (2010),Specificity of cognitive emotion regulation strategies: A transdiagnostic examination,Elsevier.
19. Luiz Pessoa (2011).Network perspective of cognition–emotion interactionsCambridge University Press.
20. M.PanimalarRoja, N.Sasikumar, &**Dr M. ParimalaFathima**, (2013),"A Study on Emotional Maturity and Self Concept at Higher Secondary Level",Research in Psychology and Behavioral Sciences, Vol 1, No 5, 2013, 81-83. ISSN:-2333-4371(Print),2333-438X (Online)

21. S. Jegadheesan, **Dr.M.Parimalafathima,**&Dr.S.Mohan (2013)," Impact Of Emotions On Self Regulation – Pre-service Teachers Perspective", Golden Research Thoughts (Nov 2013) Volume 3, Issue. 5, ISSN:-2231-5063
22. A.Sevarkodiyon, Dr.M.ParimalaFathima (2018) Self-awareness, Self-regulation, and self-transcendence (S-ART) Enhance teaching competency ISSN:2249-1481
23. S.Sumithra, Dr.M.ParimalaFathima (2018) Effect of Monitoring strategies on self-regulation among pre-service teachers volume-7, issue-9,Auguest -2018ISSN:2249-894X