## The Role of Motivational Regulation Strategies and Deep and Surface Processing Approach in Learning Engagement: Examining the Mediated and Moderated Role of Effort Manegement Abstract:

The current study aimed to examine the direct effects of both motivational regulation strategies, deep and surface information processing types as learning approaches in both effort management and learning engagement. In addition, the study aimed to explore the mediated role of effort management in the relationship between motivational regulation strategies, deep and surface information processing types and learning engagement. Moreover, It aimed to explore the moderated role of effort management for the direction and the effect size of the relationships between study variables.

The study included (YoV) university students recruited from second year students at the faculty of education Fayoum University. The two researchers translated motivational regulation strategies scale, and prepared other three scales for measuring learning engagement, deep and surface learning approaches and effort management. The study used the descriptive approach as it was suitable for finding the direct and indirect effects between study variables, and the mediated and moderated role of effort management in learning engagement.

By using meditational analysis based on PROCESS macro (Model <sup>£</sup>) in SPSS by Andrew Hayes(<sup>Y</sup>·¹Y), and moderational analysis based on PROCESS macro (Model ¹) in SPSS by Andrew Hayes(<sup>Y</sup>·¹Y), the study results revealed that there was a one direct statistically significant effect of performance goals regulation strategy in learning engagement, whereas the effect of other strategies were not statistically significant. Moreover, there were positive statistically significant effect of all five motivational regulation strategies (performance goals regulation, situational interest regulation, self consequating regulation, environmental structuring and regulation of value) in effort management.

In addition, effort management had a mediated effect in the relationship between motivational regulation strategies and learning engagement. This result meant that there was no direct effect of motivational regulation strategies in learning engagement, but it was an

indirect statistically significant effect through effort management. Moreover, the results showed that the only moderated effect of effort management was for self consequating regulation strategy where increasing self consequating and the level of effort management led to increasing the level of learning engagement.

Finally, there was a negative direct significant effect of surface processing of information, and a positive direct significant effect of deep processing of information in learning engagement. Also, there was a statistically significant mediated effect of effort management between deep processing of information approach and learning engagement. But, there was not a statistically significant moderated effect of effort management as the effect of deep or surface processing of information approaches in learning engagement didn't depend on the different levels of the effort management.

Key Words: Motivational Regulation Strategies – Deep and Surface Processing Approach – Effort Management – Learning Engagement – Mediated and Moderated Effect.