World Academy of Science, Engineering and Technology International Journal of Educational and Pedagogical Sciences Vol:16, No:07, 2022

Mental Contrasting with Implementation Intentions: A Metacognitive Strategy on Educational Context

Authors: Paula Paulino, Alzira Matias, Ana Margarida Veiga Simão

Abstract: Self-regulated learning (SRL) directs students in analyzing proposed tasks, setting goals and designing plans to achieve those goals. The literature has suggested a metacognitive strategy for goal attainment known as Mental Contrasting with Implementation Intentions (MCII). This strategy involves Mental Contrasting (MC), in which a significant goal and an obstacle are identified, and Implementation Intentions (II), in which an "if... then..." plan is conceived and operationalized to overcome that obstacle. The present study proposes to assess the MCII process and whether it promotes students' commitment towards learning goals during school tasks in sciences subjects. In this investigation, we intended to study the MCII strategy in a systemic context of the classroom. Fifty-six students from middle school and secondary education attending a public school in Lisbon (Portugal) participated in the study. The MCII strategy was explicitly taught in a procedure that included metacognitive modeling, guided practice and autonomous practice of strategy. A mental contrast between a goal they wanted to achieve and a possible obstacle to achieving that desire was instructed, and then the formulation of plans in order to overcome the obstacle identified previously. The preliminary results suggest that the MCII metacognitive strategy, applied to the school context, leads to more sophisticated reflections, the promotion of learning goals and the elaboration of more complex and specific selfregulated plans. Further, students achieve better results on school tests and worksheets after strategy practice. This study presents important implications since the MCII has been related to improved outcomes and increased attendance. Additionally, MCII seems to be an innovative process that captures students' efforts to learn and enhances self-efficacy beliefs during learning tasks.

Keywords: implementation intentions, learning goals, mental contrasting, metacognitive strategy, self-regulated learning

Conference Title: ICPIMP 2022: International Conference on Pedagogy, Innovative Methods and Practices

Conference Location : Stockholm, Sweden **Conference Dates :** July 12-13, 2022