# Review of: "Influence of Meta-cognition, Self-efficacy, and Self-regulated Learning on Students' Achievement in Biology in Ibadan, Nigeria"

Ayman Elsamanoudy[1]

1 Mansoura University

Potential competing interests: No potential competing interests to declare.

The current research article aims to alleviate problems encountered by students in learning biology, improve students' conceptual learning of biology concepts, and improve their career prospects for studying biology-related fields in tertiary institutions; this will, in turn, lead to enhanced human resources for national development. The author investigated the influence of meta-cognition, self-efficacy, and self-regulated strategies on biology students. The study found that metacognition does not significantly influence students' achievement in biology. In contrast, a significant difference existed between students' achievement in biology and (i) self-efficacy and (ii) self–regulated strategies. The study also revealed a relationship among meta-cognition, self-efficacy, and self-regulated learning strategies. The

study recommends that biology students, in light of the results, should be exposed to different types of meta-cognitive

skills, and they should be exposed to tasks and questions that can boost their self-efficacy.

Introduction: Unsatisfactory

The authors must expand the introduction section with more elaboration of the context they want to present and provide more literature review and previous similar studies that discussed the problem.

Methodology : satisfactory, but adding a link or submitting the questionnaire as an appendix is better.

Results : Satisfactory

Discussion: Satisfactory

But the authors must add a more detailed explanation of their results, especially the point that students' achievement is independent of their meta-cognition and gender. It needs more elaboration.