2 - Learning Science: Cognitive, Affective, and Social Aspects | Empirical

SP - (16166) - KNOWLEDGE OF PHYSICS AND SUCCESS IN COMMENTING ON SILENT VIDEO TASK

Simona Gorčáková (Slovakia)¹; Klára Velmovská (Slovakia)¹

1 - Faculty of Mathematics, Physics a Informatics, Comenius University, Bratislava, Slovak Republic

Short Abstract

One of the aims of science education in Slovakia is to develop students' communication skills, i.e., to develop the formulation and expression of their thoughts and opinions. (ŠPÚ, 2015). Verbalization of thoughts is an everyday part of a life. To verbalize means to express thoughts, opinions, or emotions through words. (Cambridge Dictionary, 2020) For a teacher who wants to develop students' cognitive processes, it is important to know their thoughts. Therefore, the student's ability to verbalize their thoughts is crucial. "The information and communication aspect of scientific thinking is revealed in skills such as communicating and sharing knowledge, working cooperatively as a team, discussing theories and solutions with colleagues, evaluating one's own and others' communications and assuming personal and social responsibilities." (Manassero-Mas, Vázquez–Alonso, 2020). The opportunity of verbalizing the thoughts and developing the communication skills could be given by silent video task. Silent video is a short video, less than 2 minutes long, which shows a physics phenomenon or experiment. The task for student is to record the voice-over to the video. Since the aim of science education is the development of communication skills, we were interested in the level of communication skills of our students in relation to their knowledge, so we conducted a survey aimed at correlation between physics knowledge and success in commenting on silent video, which was conducted among high school students.

CAMBRIDGE DICTIONARY [online]. Cambridge University Press, ©2020, Available on: https://lnk.sk/ir02 [16 September 2020]

MANASSERO-MAS, M.A., VÁZQUEZ–ALONSO, Á. (2020). Science Education as Thinking: The Beauty of Scientific Thinking and Critical Thinking. In *Levrini, O. & Tasquier, G. (Eds.), Electronic Proceedings of the ESERA 2019 Conference. Part [7/7] (pp. 816 - 825). Bologna: ALMA MATER STUDIORUM – University of Bologna. 978- 88-945874-0-1978-88-945874-0-1*

ŠPÚ. (2015). Štátny vzdelávací program pre gymnáziá. [online]. Bratislava : ŠPÚ, 2015. Available on:https://lnk.sk/btus [10] January 2021]