

Abstract

This bachelor thesis focuses on creating learning tasks, including determining their difficulty levels. The aim of the thesis is to contribute to expanding the portfolio of educational materials, specifically tasks at the grammar school level, to develop students' scientific literacy. The thesis presents three developed complex learning tasks, which were evaluated by a focus group for cognitive difficulty, content adequacy, and attractiveness. The results indicate that most tasks are suitable for high school education. The thesis also includes a discussion on the importance of scientific literacy in the context of PISA study and its situation among students in the Czech Republic. Furthermore, the thesis analyzes the Framework Educational Programme for Gymnasiums (RVP G) regarding the topic of air quality and provides theoretical foundations for creating complex learning tasks. The thesis also contributes to linking chemistry education with the cross-curricular theme of environmental education, as outlined in the RVP G.

Key Words

Air quality, learning tasks, PISA survey, chemistry education.