

BUILDING AWARENESS OF SCIENCE IN SOCIETY AND MOTIVATION TO LEARN THROUGH THE CHEMISTRY REAL INTEGRATED LABORATORY WORK (CHEM-RILW) MODEL

Friday, 10 October 2025 14:00 (5 minutes)

This study aims to analyze the need for developing the CHEM-RILW model as an extension of the previously established Integrated Laboratory Work (ILW) model. The participants in this study consisted of lecturers (N = 2) and chemistry students (N = 47). Data were collected using observation sheets, questionnaires, critical thinking tests, and rubrics for assessing argumentation and communication skills. The findings indicate that the learning process has been integrated with laboratory investigations, demonstrating effective implementation across pre-laboratory, laboratory, and post-laboratory stages. However, the existing model has not effectively enhanced students' interpretation and presentation skills. Furthermore, the human dimension of science has not been sufficiently emphasized, resulting in limited development of students' argumentation abilities. Analysis of lecturer questionnaires highlights the need to refine the model by incorporating more real-world applications of theoretical concepts. Based on these findings, the development of the CHEM-RILW model is considered necessary. This model introduces additional real-world elements into the ILW framework by integrating human and societal aspects into the learning process. The real concept emphasizes the inclusion of social science perspectives to illustrate human elements within chemistry concepts.

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Session Classification: Parallel Session

Track Classification: Teaching & Learning