The Development Of Practical Guides With Problem Based Learning (PBL) Chemistry To Improve Students Learning Achievement On Acid And Base Topic

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ABSTRACT

This study aimed to obtain practical guides based on PBL accordance with the standards BSNP in matter acid and base Class XI even semester according to K13 curriculum. This type of research and development. Learning outcomes using practicum guides that have been developed are measured at the end of the study. Research and development is research used to produce certain products and test the effectiveness of these products. The existing practicum guide was then validated by one respondent from Universitas Negeri Medan chemistry lecturer and practicum guide that had been developed and then validated by 2 respondents from Universitas Negeri Medan chemistry lecturers and 2 high school chemistry teacher respondents. For existing guides, the average value for lecturer validation is 2.73 and for guides that have been developed, the average score for lecturer validation is 3,702 and the average value for teacher validation is 3,478. Furthermore, the practicum guide that has been developed is limited to testing at SMA Negeri 1 Perbaungan, with a sample of 38 students. From the limited trial, obtained an increase in student learning outcomes by 49.87%. Based on the calculation of the percent (%) effectiveness of practical guides based on PBL the results of the study obtained 74.92% with the category "Effective". The results of the study showed that the practicum guide that had been developed for high school students of class XI on acid and base material was appropriate / standard in accordance with the National Education Standards Agency (BSNP).

Keywords: *Research and development, Practical Guidance, BSNP (National Education Standards Agency).*