

## ABSTRACT

**Catherine Juperta Hotmatua Marbun, NIM 4203331023 (2024).  
Development of Contextual-Based Chemistry Teaching Materials On The  
Subject of Buffer Solution In Senior High School.**

This study was aimed to analyse: (1) Development of contextual-based chemistry teaching materials on the subject of BSNP standardized buffer solutions, (2) Validity of lecturers and chemistry teachers on developed chemistry teaching materials, (3) Improvement of student learning outcomes with the use of contextual-based chemistry teaching materials on the subject of developed buffer solutions. The research method uses research and development developed using the ADDIE model, namely analysis, design, development, implementation and evaluation. The instruments used are in the form of interview sheets, BSNP standardized teaching material validation sheets, student response questionnaire sheets, and test question instruments as many as 20 valid questions. Teaching materials validated by validators based on the criteria of the National Education Standards Agency (BSNP) include content feasibility, presentation feasibility, language feasibility, and graphic feasibility. After being validated, this teaching material was tested on students to students of class XI IPA 1 SMA N 11 Medan in the 2023/2024 academic year with a total of 35 students. The research results obtained, namely: (1) The development was carried out using the R&D method with the ADDIE development model which was adjusted to the BSNP eligibility standards, (2) The results of validation by chemistry lecturers and teachers obtained an average value of 3,64 with valid criteria and feasible to use and based on student response questionnaires to teaching materials obtained an average value of 92,23% with very good criteria and teaching materials and very feasible to use, (3) There is an increase in student learning outcomes on the use of contextual-based chemistry teaching materials on the subject of buffer solutions, from the results of the N-Gain analysis obtained by 0,33 with a medium category.

**Keywords :** Teaching Materials, Contextual, Buffer Solution, ADDIE, Student Response, and Learning Outcomes.