

ABSTRACT

Yanti Nurhayati. 2024. **Pengembangan *Contextual Learning Activity Student's (CLAS)* Pada Materi Polinomial Untuk Mengeksplor Kemampuan Koneksi Matematis Siswa.** Program Studi Magister Pendidikan Matematika. Program Pascasarjana. Universitas Siliwangi.

This research aims to produce Contextual Learning Activity Student's (CLAS) products on polynomial material to explore students' mathematical connection abilities, analyze the effectiveness of CLAS. The subjects in this research were 3 mathematics teachers, 12 students taken from classes XI MIPA 2 and XI MIPA 3 as a limited trial, 2 material experts, 2 media experts and 24 students from class XI MIPA 1 SMA Negeri 1 Cigalontang as subjects in field trials. This type of research is research and development (Research & Development) with a 4D development model which has four stages, namely define, design, development and dissemination. The data collection technique in this research is through unstructured interviews, questionnaires and mathematical connection ability tests. The instruments used in this research were material expert validation sheets, media expert validation sheets, user response questionnaires, and mathematical connection ability test questions. Based on the results of research and development, at the define stage researchers analyzed the needs for materials and teaching materials that were in accordance with student characteristics. At the design stage, the researcher created a CLAS design on the Canva Education website, compiled a material expert validation sheet, media expert validation sheet and designed mathematical connection ability test questions. At the development stage, researchers produce the CLAS product that has been designed, then carry out validation tests with material experts and media experts. The validation test results given to material experts and media experts were in the "very valid" category and product trials were carried out on 3 teachers and 12 students taken from class XI MIPA 2, and 3 and obtained the "very good" category. At the development stage, CLAS was also used as a medium in learning carried out by 24 students in class XI MIPA 1. The results of the learning carried out were that the average post-test score was 69.00 and was included in the sufficient category. Apart from that, the user response to the CLAS provided is in the "very good" category. Next, at the dissemination stage, researchers carried out distribution by holding outreach via zoom meetings to several SMA/MA/SMK teachers in Tasikmalaya Regency. The conclusion of this research is to produce a valid CLAS product used to explore mathematical connection capabilities. The results of the Effect Size (d) test received a value of 2.59, which has a very high effect for exploring mathematical connection capabilities.

Keywords: CLAS, *Mathematical Connection Ability*, CTL