

Abstract

Learning models really need to be developed to meet the demands of the world of work and keep up with existing technological developments, especially in the field of physics. This study aims to produce a collaborative online learning model based on the case method in optics courses. This research uses the Research and Development (R&D) method with the ADDIE model. The ADDIE model has five steps that need to be carried out in a structured manner because they are systematic, namely analysis, design, development, implementation and evaluation. The number of participants in this research consisted of 12 physics education students from Uhamka Jakarta and 13 physics education students from Unismuh Makassar. The number of lecturers involved was 5 people, with details of 3 from Unismuh Makassar lecturers and 2 from Uhamka Jakarta lecturers, all participants, both lecturers and students, carried out activities in the collaborative LMS that had been developed previously. The based on the process of implementing a collaborative online learning program. The analysis stage is the first step which aims to match the learning outcomes with the type or form of the digital module in the Optics course chosen. The design stage is to organize and design learning activities and videos. The development stage is the stage of building digital modules by assembling them into SPADA Unismuh Makassar. The number of students in the high improvement category in creative skills is 50% and in written communication skills is 60%. This shows that the use of collaborative online learning design in optics lecture activities related to geometric optics material has moderate effectiveness in improving creative thinking and communicative skills.