

ABSTRAK

FAJAR SUKMA HARSA. Pengembangan Media Pembelajaran Berbantuan *Adobe Flash* Berbasis Pembelajaran Kooperatif Untuk Meningkatkan Kemampuan Spasial Dan Kemandirian Belajar Siswa SMP Chandra Kumala Deli Serdang

Kemampuan spasial mendukung hasil belajar matematika siswa terutama pada topik geometri yang berkaitan dengan shape and space. Tujuan penelitian ini adalah untuk melihat kualitas pengembangan media pembelajaran berbantuan *adobe Flash* berbasis pembelajaran kooperatif untuk meningkatkan kemampuan spasial siswa. This study is development research using 4-D model (define, design, develop, and disseminate) in two classes that consist 30 students in each class at Secondary School Chandra Kumala Deli Serdang and it has two trials for the developing step. Kualitas pengembangan dinilai dari beberapa aspek yaitu kevalidan, kepraktisan, keefektifan pengembangan media dan peningkatan nilai kemampuan spasial siswa. Hasil penelitian menunjukkan bahwa diperoleh skor validitas pengembangan media sebesar 2,89 (criteria:valid). Kepraktisan telah memenuhi kriteria praktis yang ditinjau dari angket guru dengan skor rata-rata 2,65 pada uji coba I dan 2,98 pada uji coba II, serta respon siswa dengan skor rata-rata 2,75 pada uji coba I dan 2,85 pada uji coba II. Keefektifan memenuhi kriteria efektif, yaitu ditinjau dari ketuntasan belajar siswa secara klasikal sudah mencapai 86,7 % pada uji coba II (pada uji coba I hanya 76,7%) dan penggunaan waktu penelitian sesuai rencana pelaksanaan pembelajaran. Sedangkan N-gain peningkatan kemampuan spasial siswa menggunakan media pembelajaran yang dikembangkan pada uji coba I berada pada kategori rendah dengan skor 0,13, namun berada pada kategori sedang dengan skor 0,34 pada uji coba II. Selanjutnya nilai rata-rata meningkat dari uji coba I sebesar 71,32 menjadi 77,13 pada uji coba II. Disamping itu, adanya pencapaian kemandirian belajar siswa dalam belajar matematika menjadi penguatan terhadap peranan pengembangan media *Adobe Flash* dalam proses belajar mengajar

Kata Kunci : Spasial, Pengembangan, Media, *Adobe Flash*, Kemandirian Belajar

ABSTRACT

FAJAR SUKMA HARSA. Development of Adobe Flash Learning Media Based on Cooperative Learning to Improve Student's Spatial Ability and Self Regulated Learning at Chandra Kumala Secondary School

Spatial ability supports the results of student mathematics learning especially on geometry topics related to shape and space. The purpose of this study was to look at the quality of the development of learning media assisted by *Adobe Flash* based on cooperative learning to improve student's spatial abilities. This study is development research using 4-D model (define, design, develop, and disseminate) in two classes of 30 students at Secondary School at Chandra Kumala Deli Serdang and it has two trials for the developing step. The quality of development is assessed from several aspects, namely validity, practicality, effectiveness of media development and increasing the value of student's spatial abilities. The results showed that the media development validity score was 2.89 (criteria: valid). Practicality has met the practical criteria reviewed by the teacher questionnaire with an average score of 2.65 in trials I and 2.98 in trial II, and responses of students with an average score of 2.75 in trials I and 2.85 in trial II which means good responses. Effectiveness fulfills the effective criteria, namely in terms of the completeness of student learning classically has reached 86.7% in the trial II (in the trial I only 76.7%) and the use of research time according to the implementation plan of learning. Whereas N-gain increases the spatial ability of students using learning media developed in trial I in the low category with a score of 0.13, but in the moderate category with a score of 0.34 in the trial II. Furthermore, the average value increased from the first trial of 71.32 to 77.13 in the second trial. In other hand, there is a better achievement for student's self regulated learning, when taught by *Adobe Flash*.

Key Words : *Spatial, Developments, Media, Adobe Flash, Self Regulated Learning*