

ABSTRAK

NAZMAH. Pengembangan Perangkat Pembelajaran Berbasis Model Kooperatif Tipe *Jigsaw* Untuk Meningkatkan Kemampuan Pemecahan Masalah Matematik dan Keterampilan Sosial Siswa Kelas X MAN 1 Padangsidempuan. Tesis. Medan: Program Studi Pendidikan Matematika Program Pascasarjana Universitas Negeri Medan, 2018.

Penelitian ini bertujuan untuk: (1) Mengetahui apakah perangkat pembelajaran berbasis model kooperatif tipe *jigsaw* yang dikembangkan valid, praktis dan efektif. (2) Mengetahui apakah kemampuan pemecahan masalah matematik melalui penggunaan perangkat pembelajaran dapat meningkat. (3) Mengetahui apakah keterampilan sosial siswa melalui penggunaan perangkat pembelajaran dapat meningkat. Jenis penelitian yang digunakan adalah penelitian pengembangan oleh Thiagarajan, Semmel dan Semmel, yaitu model 4-D (*define, design, develop, dan disseminate*). Tahap *dissaminate* dilakukan dengan disain *quasi eksperimen one group pre-test post-tets* dengan teknik analisis data statistik kuantitatif *uji t*. Subjek penelitian pada uji keterbacaan adalah siswa dan guru kelas X. Data dikumpulkan menggunakan 4 jenis instrumen yaitu lembar validitas, lembar observasi, angket dan tes. Hasil penelitian diperoleh perangkat pembelajaran yang valid, praktis, dan efektif. (1) Validitas ditunjukkan dari hasil 5 orang validator, rata-rata total validitas untuk RPP: 4,25; LKS: 4,00; Buku Siswa: 4,19; Tes Kemampuan Pemecahan Masalah: 3,64 dan Angket Keterampilan Sosial: 4,30. Hasil validasi ini menunjukkan bahwa perangkat yang dikembangkan layak digunakan (memenuhi kriteria $3 \leq Va < 4$). Kepraktisan dilihat dari uji coba keterbacaan dengan hasil: lembar observasi keterlaksanaan perangkat 3,92; Respon siswa dan respon guru terhadap perangkat pembelajaran masing-masing 3,31 dan 3,50, hasil uji keterbacaan ini menunjukkan bahwa perangkat yang dikembangkan praktis (memenuhi kriteria kepraktisan). Keefektifan dilihat dari uji coba lapangan dengan hasil: nilai ketuntasan hasil belajar pada uji coba lapangan pertama belum mencapai kriteria keefektifan (ketuntasan belajar klasikal $\leq 85\%$), sedangkan pada uji coba lapangan kedua sudah memenuhi kriteria keefektifan yaitu ketuntasan belajar klasikal $\geq 85\%$, kemampuan guru mengelola pembelajaran dalam kategori baik (3,50 - 4,49), dan aktivitas siswa berada pada kriteria batasan keefektifan pembelajaran. (2) Pada uji lapangan pertama dan kedua menunjukkan kemampuan pemecahan masalah matematis meningkat secara signifikan yang ditunjukkan dari nilai (sig.) = 0,00 ((sig.) $\leq 0,05$). Secara keseluruhan hasil penelitian menunjukkan bahwa perangkat pembelajaran yang dikembangkan adalah layak untuk digunakan.

Kata Kunci: Perangkat Pembelajaran, Kooperatif Tipe *Jigsaw*, Pemecahan Masalah, Keterampilan Sosial

ABSTRACT

NAZMAH. The Development of Learning Instruments Based on Cooperative Type Jigsaw Model to Improving Student's Mathematics Problem Solving Ability and Social Skills Ability in MAN 1 Padangsidempuan. Thesis. Medan: Postgraduate of Study Mathematics Education Program, State University of Medan, 2018.

The objectives of this study were; (1) to find out the validity, practical and effectiveness of developed cooperative type jigsaw model instrument, (2) to investigate whether the use of learning instrument could improve the students' ability in problem solving ability, (3) to investigate whether the use of learning instrument could improve the students' ability in social skills ability. This study was conducted by using research and development 4-D method (define, design, develop and disseminate) which was developed by Thiagarajan, Semmel and Semmel. The disseminate stage was done by using one group pre-test post-test experimental quasi design which was analyzed by using quantitative statistical t-test. The subject of study on readability test was the teacher and the students of class X. There were four kinds of instruments utilized in collecting the data of study, namely validity sheet, observation sheet, questionnaires and test. The result of study found that the learning instrument was valid, practical and effective. (1) the validity was obtained from the results of 5 validators, with the total average of lesson plans validity was 4,25; LKS: 4,00; students' books: 4,19; mathematic problem-solving test: 3,94 and social skills test: 4,30. Whereas the results of validity showed that the developed learning instruments was applicable (fulfilled the criterion $3 \leq Va < 4$). The practicality was obtained from the readability test with the results of observation sheet 3,92; students' and teacher's responses toward the learning instruments respectively showed the number of 3,31 and 3,50. The result of readability test showed that the developed learning instrument was practical (fulfilled the practicality criterion). The effectiveness was obtained from the field test with the results of: the standard score on the first field test hadn't achieved the effectiveness criterion (classical learning achievement $\leq 85\%$), besides in the second field test had achieved the effectiveness criterion with classical learning achievement $\leq 85\%$, the teacher's ability in organizing the learning was in good criterion (3,50-4,49), and the students' activities are in the limit of learning effectiveness. (2) the score of (sig.) = 0,00 ((sig.) $\leq 0,05$) showed that in the first and second field trip, the mathematics problem solving ability was significantly improved. The results of study thoroughly showed that the developed learning instrument was applicable.

Keywords: learning instrument, cooperative type jigsaw, mathematics problem solving ability, social skills