ABSTRACT

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(xxii + 223 pages; 60 chart; 76 tables; 72 appendices)

THE APPLICATION OF OWENS-KADAKIA LEARNING CLUSTER DESIGN TO IMPROVE CRITICAL THINKING ABILITY, PROBLEM SOLVING ABILITY, AND MATHEMATICAL COMMMUNICATION SKILLS AT SD XYZ DEPOK

21st century skills require students to have the skills of creativity, innovation, critical thinking, as well as the capacity for problem-solving, communication, and collaboration necessary for students to be prepared for the increasingly complicated world of work and necessary to achieve success today. These skills should be trained since students are in primary education. The purpose of this study was to analyze the improvement of critical thinking ability, problem solving ability and mathematical communication skills of students by applying the Owens-Kadakia Learning Cluster Design learning model. The method used in this research is the Classroom Action Research method with the research subject of grade VI elementary school students in Mathematics. This research was conducted in three cycles with the stages of planning, action, observation, and reflection. The research instruments used were assessment rubric instruments and interviews. From the three cycles that have been carried out, the results show that the average value of critical thinking skills in cycle one is 56.7, cycle two is 70.2, and cycle three is 79.8 with an N-gain value from cycle one to cycle three is 0.5, meaning that there is an increase in students' critical thinking skills. The average score for problem solving skills in cycle one is 59.9, cycle two is 72.1 and cycle three is 84.4 with an N-gain value from cycle one to cycle three is 0.6, meaning that there was an increase in students' problem solving skills. The average value of mathematical communication skills in cycle one is 63.5, cycle two is 72.1 and cycle three is 82.4, with an N-gain value from cycle one to cycle three is 0.5, meaning that there was an increase in students' mathematical communication skills. Based on the data obtained, it can be concluded that the application of the Owens-Kadakia Learning Cluster Design or OK-LCD learning model can improve critical thinking ability, problem solving ability and mathematical communication skills.

References: 73 (2010 – 2024)

Key words: owens-kadakia learning cluster design (OK-LCD), critical thinking ability, problem solving ability, mathematical communication skills, classroom action research

ABSTRAK

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PENERAPAN MODEL PEMBELAJARAN *OWENS-KADAKIA LEARNING CLUSTER DESIGN* UNTUK MENUMBUHKAN KEMAMPUAN BERPIKIR KRITIS, KEMAMPUAN PEMECAHAN MASALAH, DAN KETERAMPILAN KOMUNIKASI MATEMATIS DI SD XYZ DEPOK

(xxii + 223 halaman: 60 grafik; 76 tabel; 72 lampiran)

Keterampilan abad 21 menuntut siswa untuk memiliki keterampilan kreativitas, inovasi, berpikir kritis, serta kapasitas untuk memecahkan masalah, komunikasi, dan kolaborasi yang diperlukan agar siswa siap menghadapi dunia kerja yang semakin rumit dan diperlukan untuk mencapai kesuksesan saat ini. Keterampilan ini harus dilatih sejak siswa mengenyam pendidikan dasar. Tujuan penelitian ini untuk menganalisis petumbuhan kemampuan berpikir kritis, kemampuan pemecahan masalah dan keterampilan komunikasi matematis siswa dengan menerapkan model pembelajaran *Owens-Kadakia Learning Cluster Desig*n. Metode yang digunakan dalam penelitian ini adalah metode Penelitian Tindakan Kelas dengan subjek penelitian siswa kelas VI SD pada mata pelajaran Matematika. Penelitian ini dilakukan dalam tiga siklus dengan tahapan perencanaan, tindakan, observasi, dan refleksi. Instrumen penelitian yang digunakan adalah instrumen rubrik penilaian dan wawancara. Dari ketiga siklus yang telah dilaksanakan, diperoleh hasil bahwa nilai rata-rata kemampuan berpikir kritis pada siklus satu 56,7, siklus dua 70,2, dan siklus tiga 79,8 dengan perolehan nilai N-gain dari siklus satu ke siklus tiga sebesar 0.5 artinya terjadi pertumbuhan kemampuan berpikir kritis siswa. Nilai rata-rata untuk kemampuan pemecahan masalah pada siklus satu adalah 59,9, siklus dua 72,1 dan siklus tiga 84,4 dengan perolehan nilai N-gain dari siklus satu ke siklus tiga sebesar 0,6 artinya terjadi pertumbuhan kemampuan pemecahan masalah siswa. Nilai rata-rata keterampilan komunikasi matematis pada siklus satu adalah 63,5, siklus dua 72,1 dan siklus tiga 82,4 dengan nilai N-gain dari siklus satu ke siklus tiga sebesar 0.5 artinya terjadi pertumbuhan keterampilan komunikasi matematis siswa. Berdasarkan data yang diperoleh dapat disimpulkan bahwa penerapan model pembelajaran *Owens-Kadakia Learning Cluster Design* atau OK-LCD dapat menumbuhkan kemampuan berpikir kritis, kemampuan pemecahan masalah dan keterampilan komunikasi matematis siswa.

Referensi: 73 (2010 – 2024)
Kata kunci: model pembelajaran OK-LCD, kemampuan berpikir kritis, kemampuan pemecahan masalah, keterampilan komunikasi matematis, penelitian tindakan kelas