

ABSTRACT

DEVELOPING THE VALUE OF CREATIVITY THROUGH MATHEMATICS TEACHING LEARNING BASED ON PROBLEM SOLVING (A Developmental Study in Junior High Schools in Banjarmasin). Dissertation. Chairil Faif Pasani. General/Value Education Program. School of Postgraduate Studies UPI Bandung. Promoter: Prof. Dr. H. Ishak Abdulhak, M.Pd. Co-Promoters: Bana G. Kartasasmita, Ph.D.; Prof. Ace Suryadi, M.Sc., Ph.D.

Keywords: value development, creativity values, and problem solving.

The dissertation presents the results of research on a problem solving-based mathematics teaching learning model with creativity content conducted in Junior High Schools in Banjarmasin. The main issue addressed by the research is why mathematics teaching learning has not yet developed student's creative character optimally. It is broken down into four research questions as follows: (a) How is the creativity of Junior High School students in Banjarmasin currently? (b) How is the development of creativity values through problem solving-based mathematics teaching learning model? (c) Is there any significant difference in the level of creativity between a group of students who were treated with problem solving-based teaching learning and those with conventional teaching learning? (d) What factors influence the growth and development of students' creativity? To develop a problem solving-based mathematics teaching learning model with creativity content, Polya's theory on problem solving and Lickona's theory on the three stages of moral value formation were employed. The research used a mix of qualitative and quantitative approaches, with quantitative being the most dominant. Qualitative approach was employed to reveal how students' creative character/value develops through mathematics teaching learning and what factors influence the growth and development of the creativity throughout the time. Meanwhile, quantitative approach was used in developing a problem solving-based mathematics teaching learning model with creativity content. The subjects of the research were the eighth graders of SMPN 6, SMPN 19, and SMPN 24 Banjarmasin. Sample was taken using stratified random sampling technique. Data were collected through observation, test, and interview. Data analysis employed statistical test with the stages of normality test, homogeneity, t-test, regression analysis, and non-parametric test using SPSS version 16.0. The research concluded that: (a) The majority of junior high school students currently are at the level of fairly creative for the cognitive component and beginning to be observable for the affective component, so that the cognitive is more developed than the affective; (b) The problem solving-based mathematics teaching learning model with creativity content have six phases, namely (1) Delivering the objectives of teaching learning, (2) Orienting students towards the problem through problem solving, (3) Organizing students to study, (4) Guiding students to solution both individually and in group, (5) Presenting the results of problem solving, and (6) Checking students' understanding and providing feedback; (c) The implementation of a problem solving-based mathematics teaching learning model with creativity content can improve students' creativity both in the cognitive and affective domains, where the impact is most observable among students with low academic achievements than those with high academic achievements; and (d) Students' social-economic status forms students' creativity differently according to parents' awareness on how education have the potentials to influence students' creativity.

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ABSTRAK

PENGEMBANGAN NILAI-NILAI KREATIF MELALUI PEMBELAJARAN MATEMATIKA BERBASIS *PROBLEM SOLVING* (Studi Pengembangan di SMP Banjarmasin). Disertasi, Chairil Faif Pasani, Program Studi Pendidikan Umum/Nilai SPs UPI Bandung. Promotor: Prof. Dr. H. Ishak Abdulhak, M.Pd.; Ko-Promotor: Bana G. Kartasasmita, Ph.D.; Anggota: Prof. Ace Suryadi, M.Sc., Ph.D.

Kata-kata kunci: pengembangan nilai, -nilai kreatif, dan *problem solving*.

Disertasi ini menyajikan hasil penelitian tentang pengembangan model pembelajaran matematika *problem solving* bermuatan nilai kreatif (PSBNK) yang dilakukan di SMP Banjarmasin. Penelitian ini melibatkan para guru matematika dan siswa kelas VIII. Fokus masalah dalam penelitian ini adalah mengapa pembelajaran matematika belum mampu mengembangkan karakter kreatif siswa secara optimal yang dirinci menjadi empat pertanyaan penelitian berikut: (a) Bagaimana kreativitas siswa SMP Banjarmasin saat ini? (b) Bagaimana model pengembangan nilai-nilai kreativitas melalui pembelajaran matematika berbasis *problem solving*? (c) Apakah ada perbedaan yang signifikan tingkat kreativitas antara kelompok siswa yang pembelajarannya berbasis *problem solving* dan kelompok siswa yang pembelajarannya konvensional? (d) Faktor-faktor apa saja yang memberikan pengaruh terhadap tumbuh kembangnya kreativitas siswa? Untuk mengembangkan model PSBNK digunakan teori Polya tentang *problem solving* (*understanding the problem, devising a plan, carrying out the plan, dan looking back*) dan teori Lickona tentang tiga tahap pembentukan nilai moral (*moral knowing, moral feeling, dan moral action*). Pendekatan penelitian yang diterapkan adalah campuran kualitatif-kuantitatif dengan dominan kuantitatif. Pendekatan kualitatif (eksplanasi) dipergunakan untuk mengungkap bagaimana nilai/karakter kreatif siswa berkembang melalui pembelajaran matematika dan faktor-faktor apa saja yang mempengaruhi tumbuh kembang nilai/karakter kreatif pada siswa selama ini. Pendekatan kuantitatif (riset pengembangan) dipergunakan dalam pengembangan model pembelajaran PSBNK. Subyek penelitiannya adalah siswa kelas VIII SMPN 6, SMPN 19, dan SMPN 24 Banjarmasin. Pengambilan sampel menggunakan teknik stratified random sampling. Pengumpulan data dilakukan melalui observasi, tes, dan wawancara. Analisis data dilakukan dengan uji statistik dengan tahapan uji normalitas, homogenitas, uji t, analisis regresi, dan uji non-parametrik dengan bantuan program SPSS versi 16.0. Penelitian ini menghasilkan kesimpulan bahwa: (a) Sebagian besar siswa SMP pada saat ini berada pada level cukup kreatif untuk komponen kognitif dan berada pada level mulai terlihat untuk komponen afektif, sehingga komponen kognitif lebih maju dibandingkan komponen afektif; (b) Model pembelajaran PSBNK memiliki enam fase, yaitu (1) Menyampaikan tujuan pembelajaran (2) Mengorientasikan siswa pada masalah melalui *problem solving* (3) Mengorganisasi siswa untuk belajar (4) Membimbing penyelesaian secara individual maupun kelompok (5) Menyajikan hasil penyelesaian/pemecahan masalah dan (6) Memeriksa pemahaman dan memberikan umpan balik; (c) Penerapan model pembelajaran PSBNK dapat meningkatkan level kreativitas siswa baik kognitif maupun afektif di mana lebih cepat terlihat dampak perubahannya pada siswa dengan prestasi akademik rendah dibandingkan dengan siswa dengan prestasi akademik tinggi; dan (d) Status sosial ekonomi siswa membentuk pencapaian level kreatif

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siswa yang berbeda-beda di mana kesadaran orang tua terhadap pendidikan memiliki potensi mempengaruhi pencapaian kreativitas siswa.



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