PENGEMBANGAN PERANGKAT PEMBELAJARA IPAS BERMUATAN KEARIFAN LOKAL BALI DENGAN MODEL *PJBL* UNTUK MENINGKATKAN KETERAMPILAN PROSES SAINS DAN KETERAMPILAN 4C SISWA KELAS V SEKOLAH DASAR

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ABSTRAK

Penelitian ini bertujuan untuk mengembangkan perangkat pembelajaran IPAS bermuatan kearifan lokal Bali dengan model PjBL yang layak, bermanfaat, dan efektif meningkatkan keterampilan proses sains dan keterampilan 4C. Penelitian ini menggunakan model pengembangan *Borg and Gall* dengan uji validitas, kebermanfaatan, dan efektivitas. Uji validitas dengan instrumen *Learning Object Review* (LORI) divalidasi oleh enam pakar yaitu dua ahli bahasa, ahli materi, dan ahli desain. Tahap uji *one to one* melibatkan satu guru dan tiga siswa. Tahap uji *Small Grup* melibatkan delapan siswa, satu guru model dan tiga praktisi terdiri dari kepala sekolah, guru dan peneliti. Uji kebermanfaatan dengan *UEQ analysis tool* melibatkan 7 guru dan 56 siswa Kelas V. Uji efektivitas melibatkan dua guru model dan 50 siswa kelas V SD. Pengumpulan data dilakukan dengan LORI, lembar *UEQ*, dan tes keterampilan proses sains dan keterampilan 4C. Analisis validitas menggunakan formula *gregory,* analisis kebergunaan menggunakan *UEQ* dan analisis efektivitas menggunakan uji MANOVA. Jenis perangkat yang dihasilkan berupa modul ajar, bahan ajar, LKPD dan media video pembelajara. Hasil penelitian menunjukkan bahwa (1) perangkat pembelajaran IPAS dengan model PjBL berorientasi kearifan lokal telah valid dengan konsep *Tri Hita Karana*, Telajakan, dan Tradisi *Nyepi* dengan validitas sangat tinggi; (2) perangkat pembelajaran IPAS bermanfaat untuk diterapkan pada siswa kelas V SD; dan (3) perangkat pembelajaran IPAS bermuatan kearifan lokal Bali dengan model PjBL efektif meningkatkan keterampilan proses sains dan keterampilan 4C secara simultan maupun parsial pada siswa kelas V SD Gugus V Kecamatan Banjar. Oleh karena itu, dapat disimpulkan perangkat pembelajaran IPAS yang dikembangkan telah memenuhi kriteria valid, bermanfaat, dan efektif terhadap pembelajaran IPAS.

Kata Kunci : perangkat ajar, IPAS, keterampilan proses sains, keterampilan 4C.

DEVELOPMENT OF BALI LOCAL WISDOM ORIENTATED LEARNING TOOLS WITH PJBL MODEL IN IPAS LEARNING TO IMPROVE SCIENCE PROCESS SKILLS AND 4C SKILLSFIFTH GRADERS OF ELEMENTARY SCHOOL

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ABSTRACT

The study aimed to develop feasible, useful, and effective IPAS learning tools based Balinese local wisdom with PjBL models in improving science process skills and 4C skills. The study employed the Borg and Gall development model by testing aspects of validity, usefulness, and effectiveness. The validity test was evaluated through the Learning Object Review (LORI) instrument which was validated by six experts, namely two linguists, two experts on learning materials in elementary school, and two design experts. The one to one test stage involved one teacher and three students. The Small Group test stage involved eight students, one teacher as a model teacher and three practitioners consisting of principals, teachers and researchers. The usefulness test was analysed with the UEQ analysis tool involving seven teachers and fifty-six fifth graders. The effectiveness test involved two model teachers and fifty fifth graders. The data collection was conducted with LORI, UEQ sheets, and tests of science process skills and 4C skills. Validity analysis of Balinese local wisdom-oriented learning tools in the PjBL model uses the Gregory formula, usability analysis uses UEQ and analysis of the effectiveness of teaching tools uses the MANOVA test.The results showed that (1) IPAS learning tools oriented to Balinese local wisdom with PjBL model s were valid by integrating Balinese local wisdom concepts such as Tri Hita Karana, Telajakan, and Nyepi Traditions with very high validity; (2) IPAS learning tools were useful to be applied to grade V elementary schools; and (3) IPAS learning tools oriented to Balinese local wisdom with PjBL model s were effective in improving science process skills and 4C skills simultaneously and partially in grade V elementary school students at SD Gugus V Banjar District. Therefore, it can be concluded that the developed IPAS learning tools have met the criteria of valid, useful, and effective for IPAS learning.

Keywords: *teaching tools, IPAS, science process skills, 4C skills.*