

**PENGARUH STRATEGI PEMBELAJARAN *BRANCHED LEARNING*
BERBANTUAN MEDIA INTERAKTIF H5P TERHADAP PEMAHAMAN
KONSEP IPAS SISWA KELAS IV SD**

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ABSTRAK

Pemahaman konsep merupakan salah satu capaian esensial dalam pembelajaran IPA di sekolah dasar. Namun, fakta di lapangan menunjukkan bahwa peserta didik masih mengalami hambatan dalam mengonstruksi pemahaman utuh terkait materi fotosintesis, sehingga pengetahuan yang diperoleh cenderung bersifat hafalan dan minim aplikasi. Berdasarkan studi pendahuluan di Gugus II Kecamatan Kuta Selatan, rendahnya pemahaman konsep ini dipengaruhi oleh adanya disparitas kemampuan belajar siswa serta keterbatasan strategi pembelajaran dalam mengakomodasi keberagaman tersebut. Guna mengatasi problematika ini, diperlukan strategi inovatif yang adaptif terhadap karakteristik peserta didik, salah satunya melalui pemanfaatan strategi *Branched Learning* berbasis media interaktif H5P. Meskipun berpotensi besar dalam mendukung pembelajaran berdiferensiasi, kajian empiris mengenai efektivitas strategi ini pada materi sains di tingkat sekolah dasar masih sangat terbatas. Oleh karena itu, penelitian ini bertujuan untuk menguji pengaruh strategi pembelajaran *Branched Learning* berbasis media interaktif H5P terhadap pemahaman konsep fotosintesis pada siswa kelas IV SD. Penelitian menggunakan pendekatan kuasi eksperimen dengan desain *post-test only control group design*. Sampel penelitian terdiri dari kelompok eksperimen dan kelompok kontrol yang telah memenuhi asumsi uji normalitas Kolmogorov-Smirnov (sig. 0,056 dan 0,200 > 0,05) serta uji homogenitas varians (F hitung 0,419). Data dianalisis menggunakan uji statistik parametrik *Independent Sample t-test* dengan bantuan program SPSS. Hasil analisis menunjukkan nilai Asymp. Sig. (2-tailed) sebesar 0,001, yang lebih kecil dari taraf signifikansi 0,05. Temuan ini menunjukkan bahwa H_0 ditolak dan H_1 diterima, yang berarti terdapat pengaruh signifikan dari penerapan strategi *Branched Learning* berbasis H5P terhadap pemahaman konsep siswa dibandingkan dengan pembelajaran konvensional. Dengan ini dapat disimpulkan bahwa strategi ini terbukti efektif dalam memberikan pengalaman belajar yang adaptif dan meningkatkan penguasaan materi IPAS melalui navigasi jalur belajar yang interaktif.

Kata Kunci : *Branched Learning*, Media Interaktif H5P, Pemahaman Konsep, Fotosintesis.

**THE EFFECT OF H5P INTERACTIVE MEDIA-ASSISTED BRANCHED
LEARNING STRATEGY ON THE CONCEPTUAL UNDERSTANDING
OF SCIENCE AND SOCIAL STUDIES (IPAS) AMONG FOURTH-
GRADE ELEMENTARY SCHOOL STUDENTS**

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ABSTRACT

Conceptual understanding is an essential achievement in elementary school science education. However, field observations indicate that students still encounter obstacles in constructing a comprehensive understanding of photosynthesis, resulting in knowledge that tends to be rote-based with minimal application. Based on a preliminary study in Cluster II, South Kuta District, this low conceptual understanding is influenced by disparities in students' learning abilities and the limitations of current instructional strategies in accommodating this diversity. To address this problem, an innovative instructional strategy that adapts to student characteristics is required, one of which is through the utilization of an H5P interactive media-based Branched Learning strategy. Despite its great potential in supporting differentiated learning, empirical studies regarding the effectiveness of this strategy on science topics at the elementary school level remain highly limited. Therefore, this study aims to examine the effect of the H5P interactive media-based Branched Learning strategy on the conceptual understanding of photosynthesis among fourth-grade elementary school students. This study employed a quasi-experimental approach with a post-test only control group design. The research sample consisted of an experimental group and a control group that fulfilled the assumptions of the Kolmogorov-Smirnov normality test (sig. 0.056 and 0.200 > 0.05) as well as the homogeneity of variance test (F-value = 0.419). Data were analyzed using the parametric statistical Independent Samples t-test assisted by SPSS software. The results of the analysis showed an Asymp. Sig. (2-tailed) value of 0.001, which is smaller than the significance level of 0.05. This finding indicates that H_0 is rejected and H_1 is accepted, meaning that there is a significant effect of implementing the H5P-based Branched Learning strategy on students' conceptual understanding compared to conventional learning. Consequently, it can be concluded that this strategy is proven effective in providing an adaptive learning experience and enhancing the mastery of science and social studies (IPAS) concepts through interactive learning path navigation.

Keywords : Branched Learning, H5P Interactive Media, Conceptual Understanding, Photosynthesis.