

# PERUBAHAN KONSEPSI DAN PENINGKATAN KEMAMPUAN BERPIKIR KRITIS SISWA DITINJAU DARI PERBEDAAN GENDER MELALUI PENDEKATAN SAINTIFIK PADA PEMBELAJARAN SISTEM REPRODUKSI MANUSIA

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## ABSTRAK

Penelitian ini bertujuan untuk mengungkap perubahan konsepsi dan kemampuan berpikir kritis siswa melalui pendekatan saintifik yang ditinjau berdasarkan gender. Metode penelitian yang digunakan adalah *pra experiment* jenis *one group pretest-posttest*. Subjek penelitian ini sebanyak 20 siswa perempuan dan 14 siswa laki-laki kelas XI SMA. Instrumen yang digunakan ialah *three tier test* dan *essay framework Inch* yang diberikan pada saat *pretest* dan *posttest*. Jawaban dari setiap instrumen dianalisis secara kualitatif dan kuantitatif. Secara kualitatif, jawaban siswa dianalisis kesesuaiannya dengan konsep ilmiah dan rubrik penilaian *essay*. Secara kuantitatif, data diuji menggunakan pengujian statistika N-Gain, uji z satu sampel, uji *independent t-test*, dan uji korelasi *product moment*. Berdasarkan hasil analisis data dapat disimpulkan bahwa: (1) pendekatan saintifik berpengaruh signifikan terhadap perubahan konsepsi (*Asymp. Sign 2 tailed = 0,017*) dan terdapat perbedaan perubahan konsepsi berdasarkan gendernya (*Asymp. 2 tailed = 0,026*). (2) pendekatan saintifik tidak berpengaruh signifikan terhadap kemampuan berpikir kritis siswa (*Asymp. Sign 2 tailed = 0,517*) dan tidak terdapat perbedaan berdasarkan gendernya (*Asymp. 2 tailed = 0,66*), (3) terdapat korelasi yang kuat antara perubahan konsepsi dan kemampuan berpikir kritis siswa (*Asymp. Sign 2 tailed = 0,000*).

Kata kunci: perubahan konsepsi, kemampuan berpikir kritis, gender, pendekatan saintifik

# STUDENTS' CONCEPTUAL CHANGE AND INHANCE CRITICAL THINKING BASED ON GENDER DIFFERENCE THROUGH SCIENTIFIC APPROACH ON HUMAN REPRODUCTION SYSTEM LEARNING

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## ABSTRACT

*This study was conducted to students' conceptual change and critical thinking abilities through scientific approach. The research method was weak experimental with one group pretest-post-test design and the number subject of this study were 14 boys and 20 girls in 11<sup>th</sup> grade. The instruments were three tier test and essay of Inch Framework which given at pretest and post-test. Data analyzed used qualitative and quantitative analyze. Qualitative analyze obtained through analyzed students' answer then classified into category suitable and essay rubric. Quantitatively, the data were analyzed used N-Gain, one sample z test, independent t-test, and product moment correlation test. Based on the result, it can be concluded that: (1) scientific approach was significant effect on the students' conceptual change (Asymp, Sign 2 tailed = 0,017) and there was difference of students' conceptual change based on gender (Asymp 2 tailed = 0,026). (2) the scientific approach was no significant effect on students' critical thinking skills (Asymp, Sign 2 tailed = 0,517) and there was no difference between girls and boys (Asymp 2 tailed = 0.66); (3) there was a high correlation between conceptual change and students' critical thinking skills (Asymp's Sign 2 tailed = 0,000).*

*Keywords: conceptual change, reasoning skills, gender, scientific approach*