

ABSTRAK

Pengaruh Strategi *REACT* (*Relating, Experiencing, Applying, Cooperating, Transferring*) dan *Point-counterpoint* terhadap keterampilan proses sains dan kemampuan pemecahan masalah pada materi ekologi di SMA Negeri 4 Tanjungbalai

Khairul Umam Sirait¹⁾, Binari Manurung¹⁾, Mufti Sudibyo¹⁾

Program Studi Pendidikan Biologi, Program Pascasarjana, Universitas Negeri Medan, Indonesia

Email : siraitumam7777@gmail.com

ABSTRACT

Penelitian ini bertujuan untuk mengetahui pengaruh strategi *REACT* terhadap: (1) keterampilan proses sains, (2) kemampuan pemecahan masalah pada materi ekologi di kelas X SMA Negeri 4 Tanjungbalai. Teknik analisis data menggunakan Analisis Covariat (ANCOVA) pada taraf signifikansi $\alpha = 0,05$ dengan bantuan SPSS 25.00. Hasil penelitian menunjukkan: (1) ada pengaruh yang signifikan strategi *REACT* terhadap keterampilan proses sains siswa ($F = 53,23$; $P = 0,00$). Hasil uji *Tukey's* menunjukkan bahwa keterampilan proses sains siswa yang dibelajarkan dengan strategi *REACT* $3,43 \pm 0,22$ secara signifikan lebih tinggi dibandingkan dengan keterampilan proses sains dari kelas yang dibelajarkan dengan strategi *point counter point* $3,309 \pm 0,28$ dan secara signifikan berbeda juga dengan keterampilan proses sains kelas yang dibelajarkan dengan strategi konvensional $2,07 \pm 0,34$ dengan keterampilan proses sains dari kelas yang dibelajarkan dengan strategi konvensional $2,07 \pm 0,34$. (2) ada pengaruh yang signifikan strategi *REACT* terhadap kemampuan pemecahan masalah ($F = 9,93$; $P = 0,00$). Hasil uji *Tukey's* menunjukkan bahwa kemampuan pemecahan masalah siswa yang dibelajarkan dengan strategi *REACT* $84,18 \pm 5,03$ secara signifikan lebih tinggi dibandingkan dengan kemampuan pemecahan masalah pada kelas yang dibelajarkan dengan strategi pembelajaran *point counter point* $82,90 \pm 5,31$ dan secara signifikan berbeda juga dengan keterampilan proses sains yang dibelajarkan dengan strategi konvensional $73,73 \pm 5,43$.

Keyword: *Strategi pembelajaran REACT, Strategi pembelajaran Point-counterpoint, Keterampilan proses sains, Kemampuan pemecahan masalah.*

ABSTRACT

The influence of *REACT* (*Relating, Experiencing, Applying, Cooperating, Transferring*) and *Point-counterpoint* Strategies on sciences Process Skills and Problem Solving of Ecology Topics in SMA Negeri 4 Tanjungbalai

Khairul Umam Sirait¹⁾, Binari Manurung²⁾, Mufti Sudibyo³⁾

¹Student of Postgraduate Biology Education, State University of Medan, Medan, Indonesia

^{2,3}Lecture of Postgraduate Biology Education, State University of Medan, Medan, Indonesia
Email : siraitumam7777@gmail.com

ABSTRACT

This study was conducted to determine the influence of REACT strategies on: (1) science process skills, (2) problem solving skills in ecological topics of first grade student in SMA Negeri 4 Tanjungbalai. Data analysis techniques used was Analysis of Covariate (ANCOVA) at a significance level of $\alpha = 0.05$ by SPSS 25.00 software. The results showed: (1) there was a significant influence of REACT strategy on students' science process skills ($F = 53.23$; $P = 0.00$). The results of the Tukey's test showed that the science process skills of students who were taught by REACT strategies were 3.43 ± 0.22 , significantly higher than the science process skills of the class that were taught by point counter point strategy (3.309 ± 0.28) and conventional strategies (2.07 ± 0.34). (2) There was a significant influence of REACT strategy on problem solving skills ($F = 9.93$; $P = 0.00$). The results of the Tukey's test showed that the problem solving skills of students who were taught by REACT strategy was 84.18 ± 5.03 , significantly higher than the problem solving skills in the class that were taught by point-counter point (82.90 ± 5.31) and also higher than conventional strategies (73.73 ± 5.43). As a follow-up of results of this study it is expected that the teacher can apply the REACT strategy to ecological topics in an effort to improve science process skills and students' problem solving skills.

Keyword: REACT learning strategy, counterpoint point learning strategy, science process skills, problem solving skills.