

ABSTRAK

Nurul Kamilah (1192060073): “Strategi *Think-Read-Group-Share-Reflect* (TRGSR) Terhadap Peningkatan Keterampilan Argumentasi Ilmiah Peserta Didik Pada Materi Sistem Ekskresi”

Keterampilan Argumentasi Ilmiah merupakan bagian dari keterampilan abad 21 dan keterampilan berpikir tingkat tinggi yang penting pada pendidikan sains. Penelitian ini bertujuan menganalisis peningkatan keterampilan argumentasi ilmiah melalui strategi *Think-Read-Group-Share-Reflect* (TRGSR). Penelitian menggunakan metode *quasi eksperimen* dengan desain *non equivalent control group design* dengan teknik pengambilan sampel *purposive sampling*. Penelitian dilaksanakan di salah satu SMA Negeri Kabupaten Sumedang dengan jumlah sampel 72 peserta didik. Data dikumpulkan melalui observasi, tes (*pretest-posttest*), dan angket respon. Hasil penelitian menunjukkan bahwa keterlaksanaan aktivitas guru dan siswa pada kelas eksperimen berada pada kategori sangat terlaksana dan sangat baik, sedangkan pada kelas kontrol aktivitas guru terkategori sangat terlaksana, namun aktivitas siswa berada pada kategori baik. Peningkatan keterampilan argumentasi ilmiah kelas eksperimen sebesar 0,70 (kategori tinggi), sedangkan kelas kontrol sebesar 0,62 (kategori sedang). Uji *Independent Sample T-test* menunjukkan nilai signifikansi $0,002 < 0,05$. Uji *Effect size* menunjukkan nilai 0,770 (kategori sedang). Implikasi dari penelitian ini adalah pembelajaran dengan strategi TRGSR dapat membekali keterampilan argumentasi ilmiah peserta didik khususnya pada materi sistem ekskresi.

Kata Kunci: Strategi TRGSR; Keterampilan Argumentasi Ilmiah; Sistem Ekskresi; Toulmin's Argumentation Pattern.

ABSTRACT

Nurul Kamilah (1192060073): *“Think-Read-Group-Share-Reflect (TRGSR) Strategy on the Improvement of Students' Scientific Argumentation Skills on the Excretory System Topic”*

Scientific argumentation skills are part of 21st-century skills and higher-order thinking skills that are essential in science education. This study aims to analyze the improvement of scientific argumentation skills through the Think-Read-Group-Share-Reflect (TRGSR) strategy. The study employed a quasi-experimental method with a non-equivalent control group design, using a purposive sampling technique. The research was conducted at a public senior high school (SMA Negeri) in Sumedang Regency, involving a total sample of 72 students. Data were collected through observation, tests (pretest-posttest), and response questionnaires. The results showed that the implementation of teacher and student activities in the experimental class fell into the very well-implemented and very good categories, respectively, whereas in the control class, teacher activity was categorized as very well-implemented, but student activity was categorized as good. The improvement in scientific argumentation skills was 0.70 (high category) in the experimental class and 0.62 (moderate category) in the control class. The Independent Sample T-test showed a significance value of $0.002 < 0.05$. The effect size test yielded a value of 0.770 (moderate category). The implication of this study is that learning with the TRGSR strategy can equip students with scientific argumentation skills, particularly in the excretory system topic.

Keywords: TRGSR Strategy; Scientific Argumentation Skills; Excretory System; Toulmin's Argumentation Pattern.

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