

**PEMBELAJARAN BIOLOGI DI SELINGI MEDITASI TRANSENDENTAL UNTUK
MENGURANGI KELUHAN MUSKULOSKELETAL DAN MENINGKATKAN
KONSENTRASI SERTA KONTRIBUSINYA TERHADAP HASIL BELAJAR SISWA
DI SMA NEGERI 4 SINGARAJA**

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui pembelajaran biologi diselingi meditasi transendental dapat mengurangi keluhan muskuloskeletal dan meningkatkan konsentrasi serta kontribusinya terhadap hasil belajar kognitif siswa. Penelitian eksperimental semu (*quasi experimental*) ini menggunakan rancangan sama subjek (*treatment by subject design*) atau *randomized pre and post test group* dengan variabel bebas berupa pembelajaran biologi diselingi dengan meditasi transendental. Variabel terikat berupa: (a) keluhan muskuloskeletal siswa yang didata dengan kuesioner *Nordic Body Map*, (b) konsentrasi siswa yang didata dengan kuesioner konsentrasi, (c) hasil belajar kognitif siswa yang didata dengan 40 soal pilihan ganda. Variabel kontrol berupa: kondisi subjek (umur, berat badan, tinggi badan, dan jenis kelamin) dan kondisi lingkungan (suhu, kelembaban relatif, intensitas pencahayaan kecepatan angin dan kebisingan). Pendataan dilakukan sebelum dan sesudah pembelajaran terhadap 40 sampel selama 3 (tiga) kali. Data keluhan muskuloskeletal dianalisis dengan uji *t-paired* pada taraf signifikansi 5% dan data konsentrasi belajar dianalisis dengan uji *Wilcoxon* karena data tidak berdistribusi normal. Data kontribusi keluhan muskuloskeletal terhadap hasil belajar dianalisis dengan uji regresi ordinal dan data kontribusi konsentrasi belajar terhadap hasil belajar juga dianalisis dengan uji regresi ordinal pada taraf signifikansi 5%. Hasil penelitian menunjukkan bahwa terjadi penurunan yang signifikan pada keluhan muskuloskeletal sebesar 0,35%, dengan nilai $p=0,002$ ($p<0,05$) dan peningkatan yang signifikan pada konsentrasi belajar sebesar 22,31%, dengan nilai $p=0,002$ ($p < 0,05$). Dari hasil penelitian diketahui bahwa keluhan muskuloskeletal tidak signifikan pada kontribusi terhadap hasil belajar dengan nilai $p=0,193$ ($p>0,05$) dan kontribusinya sebesar 32,9%. Sementara itu konsentrasi belajar berkontribusi terhadap hasil belajar kognitif dengan nilai $p=0,017$ ($p<0,05$) dan kontribusinya sebesar 52,3%. Dengan demikian dapat disimpulkan bahwa: (a) pembelajaran biologi diselingi meditasi transendental dapat mengurangi keluhan muskuloskeletal dan meningkatkan konsentrasi belajar siswa; dan (b) konsentrasi belajar berkontribusi terhadap hasil belajar kognitif, sedangkan keluhan muskuloskeletal tidak berkontribusi terhadap hasil belajar.

Kata Kunci: Meditasi Transendental, Keluhan Muskuloskeletal, Konsentrasi, Hasil belajar

**BIOLOGY LEARNING INCLUDED TRANSCENDENTAL MEDITATION TO
REDUCE MUSCULOSKELETAL COMPLAINTS AND INCREASE
CONCENTRATION AND ITS CONTRIBUTION TO STUDENTS' LEARNING
OUTCOMES AT SMA NEGERI 4 SINGARAJA**

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ABSTRACT

This study aims to determine whether learning biology interspersed with transcendental meditation can reduce musculoskeletal complaints and increase concentration and its contribution to student cognitive learning outcomes. This quasi-experimental research (quasi-experimental) uses the same subject design (treatment by subject design) or randomized pre and post test group with the independent variable in the form of learning biology interspersed with transcendental meditation. The dependent variables are: (a) musculoskeletal complaints of students who are recorded by the Nordic Body Map questionnaire, (b) the concentration of students who are recorded by the concentration questionnaire, (c) cognitive learning outcomes of students who are recorded with 40 multiple choice questions. Control variables are: subject conditions (age, weight, height, and gender) and environmental conditions (temperature, relative humidity, lighting intensity, wind speed and noise). Data collection was carried out before and after learning on 40 samples for 3 (three) times. Data on musculoskeletal complaints were analyzed using the t-paired test at a significance level of 5% and the learning concentration data were analyzed using the Wilcoxon test because the data were not normally distributed. Data on the contribution of musculoskeletal complaints to learning outcomes were analyzed by ordinal regression test and data on the contribution of learning concentration to learning outcomes were also analyzed by ordinal regression test at a significance level of 5%. The results showed that there was a significant decrease in musculoskeletal complaints by 0.35%, with p value = 0.002 ($p < 0.05$) and a significant increase in learning concentration by 22.31%, with p value = 0.002 ($p < 0.05$). From the results of the study, it was found that musculoskeletal complaints did not significant on the contribution to learning outcomes with a value of $p=0.193$ ($p>0.05$) and a contribution of 32.9%. Meanwhile, learning concentration contributes to cognitive learning outcomes with a value of $p=0.017$ ($p<0.05$) and its contribution is 52.3%. Thus, it can be concluded that: (a) learning biology interspersed with transcendental meditation can reduce musculoskeletal complaints and increase students' learning concentration; and (b) learning concentration contributes to cognitive learning outcomes, while musculoskeletal complaints do not contribute to learning outcomes.

Keywords: Transcendental Meditation, Musculoskeletal Complaints, Concentration, Learning Outcomes.