

**MEMBANGUN PEMAHAMAN *NATURE OF SCIENCE* (NOS) DAN
KEMAMPUAN ARGUMENTASI SISWA SMP MELALUI PENDEKATAN
EKSPLISIT-REFLEKTIF PADA MATERI PEMBIASAN CAHAYA**

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Syarat untuk Memperoleh Gelar Sarjana Pendidikan
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gelar Sarjana Pendidikan pada Fakultas Matematika dan Ilmu Pengetahuan Alam
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ABSTRAK

Literasi sains merupakan kemampuan mendasar yang harus dimiliki siswa karena dapat menjadi bekal dalam menghadapi berbagai tantangan di era globalisasi. Namun berdasarkan hasil PISA 2015 literasi sains siswa di Indonesia berada di peringkat ke-62 dari 70 negara, hasil tersebut menunjukkan bahwa siswa di Indonesia memiliki kualitas yang rendah dalam literasi sains. Berdasarkan hal tersebut, perlu adanya suatu komponen dalam suatu pembelajaran sains yang bertujuan untuk mengenalkan dan memberi pelatihan kepada siswa untuk meningkatkan literasi sains. *Nature Of Science* (NOS) dan argumentasi merupakan komponen yang dapat meningkatkan literasi sains. Dengan demikian penelitian ini bertujuan untuk membangun pemahaman NOS dan kemampuan argumentasi siswa SMP melalui pendekatan eksplisit-reflektif. Metode penelitian ini menggunakan metode kuantitatif dengan desain penelitian *one-group pretest-posttest design*. Sampel dalam penelitian ini adalah 28 siswa pada salah satu kelas VIII di salah satu SMP Negeri di Kota Bandung. Instrumen penelitian yang digunakan meliputi angket pemahaman NOS yang diolah berdasarkan rubrik penilaian yang diadaptasi dari penelitian Das, dkk (2017) dan instrumen tes kemampuan argumentasi siswa dalam bentuk uraian yang diolah dengan cara menghitung nilai rata-rata N-gain. Hasil penelitian menunjukkan bahwa mayoritas siswa memiliki pandangan *transitional* dalam memahami setiap aspek-aspek NOS dan kemampuan argumentasi siswa berada pada kategori sedang dengan perolehan nilai rata-rata N-gain sebesar 0,38. Dapat disimpulkan pembelajaran melalui pendekatan eksplisit-reflektif dapat membangun pemahaman NOS dan kemampuan argumentasi siswa.

Kata kunci : Kemampuan argumentasi, pemahaman *Nature Of Science* (NOS), pendekatan eksplisit-reflektif.

THE BUILDING UNDERSTANDING NATURE OF SCIENCE (NOS) AND ABILITY ARGUMENTATION OF JUNIOR HIGH SCHOOL STUDENTS THROUGH EXPLICIT-REFLECTIVE APPROACH TO LIGHT THE MATERIALS DISPLAY

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ABSTRACT

Science literacy is a fundamental ability that students must possess because it can be a provision in various challenges in the era of globalization. However, based on the 2015 PISA results, student literacy in Indonesia is ranked 62nd out of 70 countries, the results show that students in Indonesia have low quality in scientific literacy. Based on the study, there needs the component in a science learning that goals to introduce and training for the students to improve science literacy. Nature Of Science (NOS) and argumentation are components for students to improve literacy. Such as a research is to build understanding of NOS and the argumentation skill of junior high school students through explicit-reflective approach. This research method uses quantitative methods with one-group pretest-posttest design research designs. The sample in this study were 28 students in class VIII at one of the state junior high schools in the city of Bandung. The research instrument used contained an understanding questionnaire on NOS that was processed based guiding skor that adapted from Das. et, al. And the instrument test for students' argumentation skills in open-ended questionnaire were processed by calculating the average N-gain value. The results showed that students' were in transitional views in understanding each aspect of NOS and students' argumentation skills were in accordance with the medium category by obtaining an N-gain average value of 0.38. Can conclude that learning through explicit-reflective approach can build understanding of NOS and student argumentation skills.

Keywords : argumentation skill, understanding *Nature Of Science* (NOS), explicit-reflective approach

DAFTAR ISI

LEMBAR PENGESAHAN	i
LEMBAR PERNYATAAN	ii
UCAPAN TERIMAKASIH	iii
KATA PENGANTAR	v
ABSTRAK	vi
ABSTRACT	vii
DAFTAR ISI	viii
DAFTAR TABEL	x
DAFTAR GAMBAR	xi
DAFTAR LAMPIRAN	xii
BAB I PENDAHULUAN	1
1.1 Latar Belakang	1
1.2 Rumusan Masalah	5
1.3 Tujuan Penelitian	6
1.4 Manfaat Penelitian	6
1.5 Definisi Operasional	6
1.6 Stuktur Organisasi Skripsi.....	7
BAB II KAJIAN PUSTAKA	9
2.1 <i>Nature Of Science</i> (NOS).....	9
2.2 Kemampuan Argumentasi.....	13
2.3 Pendekatan Eksplisit-Reflektif.....	15
2.4 Kajian Materi Pembiasan Cahaya	18
BAB III METODOLOGI PENELITIAN	27
3.1 Metode dan Desain Penelitian.....	27
3.1.1 Metode Penelitian.....	27
3.1.2 Desain Penelitian.....	27
3.2 Populasi dan Sampel Penelitian	28

3.3 Instrumen Penelitian.....	28
3.3.1 Tes Pemahaman <i>Nature Of Science</i> (NOS)	28
3.3.2 Tes Kemampuan Argumentasi	28
3.3.3 Lembar Observasi Pelaksanaan Pembelajaran.....	30
3.3.4 Angket Tanggapan Siswa.....	30
3.4 Prosedur Penelitian.....	31
3.5 Teknik Pengumpulan Data	35
3.6 Teknik Analisis Instrumen Penelitian	36
3.7 Hasil Uji Coba Instrumen.....	40
3.8 Teknik Pengolahan Data	41
BAB IV HASIL PENELITIAN DAN PEMBAHASAN.....	44
4.1 Hasil Penelitian	44
4.2 Pembahasan.....	48
BAB V SIMPULAN, IMPLIKASI DAN REKOMENDASI	62
5.1 Simpulan	62
5.2 Implikasi.....	63
5.3 Rekomendasi.....	63
DAFTAR PUSTAKA	65
LAMPIRAN-LAMPIRAN	69

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