

**SCIENTIFIC LITERACY ANALYSIS ON 8TH GRADE STUDENT
SCIENCE TEXTBOOK (BSE) 1ST SEMESTER FOR JUNIOR HIGH-
SCHOOL**

RESEARCH PAPER

Submitted as Requirements to Obtain degree of *Sarjana Pendidikan* in
International Program on Science Education (IPSE)



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SCHOOL**

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SCIENTIFIC LITERACY ANALYSIS ON 8TH GRADE STUDENT
SCIENCE TEXTBOOK (BSE) 1ST SEMESTER FOR JUNIOR HIGH-
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DECLARATION

I hereby declare that every aspect written in this research paper entitled “Scientific Literacy Analysis on 8th Grade Student Science Textbook (BSE) 1st Semester for Junior High-School” genuinely resulted from my original idea, effort, and works. The theories, opinions, and others in this paper have been quoted or referenced based on the scientific code from UPI and according to scientific ethics that applies in scholarly society. This declaration is created truthfully and consciously. When an infringement towards scientific ethics subsequently is found or if there is a claim of any other towards the authenticity of this research paper. Hence, I am willing to be responsible and accept academic sanctions that correspond to the rules.

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PREFACE

All the praise and grateful to Allah SWT so the research author could finish the research paper entitled “Scientific Literacy Analysis on 8th Grade Student Science Textbook (BSE) 1st Semester for Junior High-School” Sholawat and Salam might be sent to our prophet Muhammad SAW.

Author would like to say thank you to Dr. Eka Cahya Prima, S.Pd., M.T. and Mr. Ikmanda Nugraha, M.Pd. as the supervisor of this paper who always supporting and guiding the author to be able to finish this research paper.

The research of “Scientific Literacy Analysis on 8th Grade Student Science Textbook (BSE) 1st Semester for Junior High-School” is aimed to evaluate the textbook as one of student learning sources, to know its scientific literacy representation of context and competencies which are important so the parties who are involved in developing learning sources can improve the content so the students can have better experience and knowledge by learning from the textbook.

The author realized that there might be a lot of weaknesses or error in this paper so hopefully another researcher or another parties could improve and author is open to suggestion and recommendation toward this research. Thank you to everyone who got involved in finishing this paper and hopefully the knowledge could be useful in the future.

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SCIENTIFIC LITERACY ANALYSIS ON 8TH GRADE STUDENT SCIENCE TEXTBOOK (BSE) 1ST SEMESTER FOR JUNIOR HIGH- SCHOOL

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ABSTRACT

According to PISA 2000-2018, Indonesia always ranked in the bottom 10 compared to other participating countries, indicating if students in Indonesia have low scientific literacy knowledge. Based on PISA 2018, scientific literacy is defined by 3 competencies: scientifically explaining phenomena, evaluating and designing scientific inquiry, and interpreting data and evidence (OECD, 2019). The research of “scientific literacy analysis on 8th grade student science textbook (BSE) 1st semester for junior high-school was using qualitative-descriptive research method. This research aimed to evaluate the representation of scientific literacy context and competencies in student textbook, to be the reference to develop and improve student scientific literacy by learning from textbook. The object used was national science textbook 2017 edition published by Kemendikbud from Indonesia government. Science textbook is needed to support student in learning science to reach the goal of Curriculum 2013 in which its content has been adjusted with the demand of mastering science content according to TIMSS and PISA (Kemendikbud, 2017). The instrument used is based on PISA 2018 categories. The result showing if the book contains several contexts of scientific literacy mostly for personal and local/national context but still lack of content related to the global context. While the competencies result showing 54.20% for first competency, 3.82% for the second competency, and 41.98% for the third competency. The compositions of the competencies were unbalanced especially for second competency.

Keywords: *Curriculum 2013, PISA, Science Textbook, Scientific Literacy*

**ANALISIS LITERASI SAINTIFIK PADA BUKU PEMBELAJARAN (BSE)
ILMU PENGETAHUAN ALAM SISWA SEKOLAH MENEGAH
PERTAMA KELAS 8 SEMESTER 1**

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ABSTRAK

Berdasarkan hasil PISA tahun 2000-2018, Indonesia selalu berada di peringkat 10 terbawah dibandingkan negara peserta lainnya, menandakan jika siswa di Indonesia memiliki pengetahuan literasi sains yang rendah. Berdasarkan PISA 2018, literasi sains didefinisikan oleh 3 kompetensi: menjelaskan fenomena secara ilmiah, mengevaluasi dan merancang penyelidikan ilmiah, dan menafsirkan data dan bukti (OECD, 2019). Penelitian “analisis literasi sains pada buku teks IPA siswa kelas VIII (BSE) semester 1 SMP menggunakan metode penelitian deskriptif kualitatif. Penelitian ini bertujuan untuk mengevaluasi representasi konteks dan kompetensi literasi sains dalam buku teks siswa, untuk menjadi acuan dalam mengembangkan dan meningkatkan literasi sains siswa dengan belajar dari buku teks. Objek yang digunakan adalah buku teks IPA nasional edisi 2017 terbitan Kemendikbud dari pemerintah Indonesia. Buku ajar IPA diperlukan untuk mendukung siswa dalam mempelajari IPA untuk mencapai tujuan Kurikulum 2013 yang isinya telah disesuaikan dengan tuntutan penguasaan materi IPA menurut TIMSS dan PISA (Kemendikbud, 2017). Instrumen yang digunakan berdasarkan kategori PISA 2018. Hasil penelitian menunjukkan jika buku tersebut memuat beberapa konteks literasi sains sebagian besar untuk konteks personal dan lokal/nasional tetapi masih kekurangan konten yang terkait dengan konteks global. Sedangkan hasil kompetensi menunjukkan 54,20% untuk kompetensi pertama, 3,82% untuk kompetensi kedua, dan 41,98% untuk kompetensi ketiga. Komposisi kompetensi tidak seimbang terutama untuk kompetensi kedua.

Kata Kunci : *Buku IPA, Kurikulum 2013, Literasi Saintifik, PISA*

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