

DISERTASI

**PENGUNAAN *SMARTPHONE* UNTUK PEMBELAJARAN SISWA
SEKOLAH DASAR DALAM MEMBANGUN PENGUASAAN KONSEP,
BERPIKIR KRITIS, DAN LITERASI DIGITAL**

Diajukan untuk Memenuhi Salah Satu Syarat Memperoleh Gelar Doktor pada
Program Studi Pendidikan Dasar Sekolah Pasca Sarjana
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BERPIKIR KRITIS, DAN LITERASI DIGITAL**

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gelar Doktor Pendidikan (Dr.) pada Program Studi Pendidikan Dasar

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Halaman Pengesahan

**PENGUNAAN *SMARTPHONE* UNTUK PEMBELAJARAN SISWA
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BERPIKIR KRITIS, DAN LITERASI DIGITAL.**

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ABSTRAK

PENGUNAAN *SMARTPHONE* UNTUK PEMBELAJARAN SISWA SEKOLAH DASAR DALAM MEMBANGUN PENGUASAAN KONSEP, BERPIKIR KRITIS, DAN LITERASI DIGITAL

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Pendidikan pada abad 21 berorientasi pada gaya hidup digital. Pendidikan dasar perlu mengenalkan kepada siswa tentang keterampilan menguasai media teknologi, agar siswa memiliki kompetensi yang baik dalam hal penguasaan konsep IPA serta teknologi dan mampu berpikir kritis. Tujuan dari penelitian ini secara umum adalah untuk mendeskripsikan peran *smartphone* dalam mendukung perkembangan penguasaan konsep, kemampuan berpikir kritis, dan kemampuan literasi digital siswa SD pada pembelajaran IPA. Metode penelitian yang digunakan adalah *mixed method* dengan desain *embedded experimental model*. Teknik sampling yang digunakan yaitu *purposive sample* dengan melibatkan sejumlah siswa kelas lima yang menggunakan *smartphone* dalam penelitian. Instrumen penelitian yang digunakan adalah lembar wawancara, tes penguasaan konsep, tes berpikir kritis, dan angket literasi digital. Hasil penelitian menunjukkan bahwa dilihat dari hasil uji beda data menunjukkan hasil yang signifikan, artinya kegiatan pembelajaran dengan menggunakan *smartphone* pada materi sistem pernapasan manusia dapat meningkatkan penguasaan konsep siswa. Hasil penghitungan uji beda menyatakan bahwa penggunaan *smartphone* dapat meningkatkan kemampuan berpikir kritis, dapat dilihat pada data dari 5 aspek dan 7 indikator mengalami peningkatan, kemampuan literasi digital siswa dalam pembelajaran dengan menggunakan *smartphone* termasuk dalam kategori baik. Hasil persentase analisis angket literasi digital menyatakan bahwa siswa kelas lima SD Al Falah Darussalam 2 Sidoarjo memiliki kemampuan literasi digital dengan empat area kompetensi yaitu 1) informasi dan literasi data, 2) komunikasi dan kolaborasi, 3) keamanan, dan 4) pemecahan masalah, dengan 4 area kompetensi literasi digital hasilnya berbeda. Hasil uji korelasi menunjukkan bahwa penguasaan konsep, berpikir kritis, dan literasi digital, tidak saling berkorelasi.

Kata kunci: *smartphone*, penguasaan konsep, berpikir kritis, literasi digital

ABSTRACT

THE USE OF SMARTPHONES FOR ELEMENTARY SCHOOL STUDENTS LEARNING IN BUILDING CONCEPT MASTERY, CRITICAL THINKING, AND DIGITAL LITERACY

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Education in the 21st century is oriented towards a digital lifestyle. Basic education needs to introduce students to skills in mastering technological media, so that students have good competence in terms of mastering science and technology concepts and are able to think critically. The purpose of this research in general is to describe the role of smartphones in supporting the development of concept mastery, critical thinking skills, and digital literacy abilities of elementary students in science learning. The research method used is a mixed method with an embedded experimental model design. The sampling technique used was a purposive sample involving a number of fifth grade students using smartphones in the study. The research instruments used were interview sheets, concept mastery tests, critical thinking tests, and digital literacy questionnaires. The results showed that the results of the different data test showed significant results, meaning that learning activities using a smartphone on the material of the human respiratory system could improve students' mastery of concepts. The results of the different test calculations state that the use of smartphones can improve critical thinking skills, it can be seen from the data from 5 aspects and 7 indicators that have increased, students' digital literacy abilities in learning using smartphones are included in the good category. The results of the percentage analysis of the digital literacy questionnaire stated that fifth grade students at SD Al Falah Darussalam 2 Sidoarjo have digital literacy skills with four competency areas, namely 1) information and data literacy, 2) communication and collaboration, 3) security, and 4) problem solving, by The 4 areas of digital literacy competency have different results. The results of the correlation test show that mastery of concepts, critical thinking, and digital literacy are not correlated with each other.

Keywords: smartphone, concept mastery, critical thinking, digital literacy

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