

**STUDI SCIENCE TECHNOLOGY AND SOCIETY (STS) PADA
PENDIDIKAN LINGKUNGAN MELALUI BIBLIOMETRIK
DALAM MENGEMBANGKAN KESADARAN LINGKUNGAN**

DISERTASI

Diajukan untuk memenuhi sebagian syarat memperoleh gelar Doktor Pendidikan
pada Program Studi Pendidikan Umum dan Karakter



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SEKOLAH PASCASARJANA
UNIVERSITAS PENDIDIKAN INDONESIA**

2022

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UPI Bandung, 2022

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Agustus 2022

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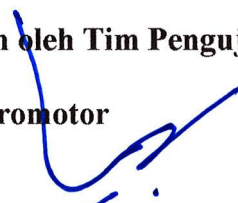
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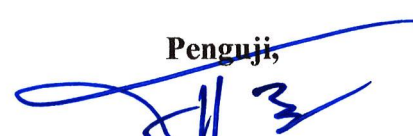
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HALAMAN PERNYATAAN

Dengan ini saya menyatakan bahwa disertasi dengan judul “Studi *Science Technology and Society* (STS) pada pendidikan lingkungan melalui bibliometrik dalam mengembangkan kesadaran lingkungan” ini beserta seluruh isinya adalah benar-benar karya saya sendiri. Saya tidak melakukan penjiplakan atau pengutipan dengan cara-cara yang tidak sesuai dengan etika ilmu yang berlaku dalam masyarakat keilmuan. Atas pernyataan ini, saya siap menanggung resiko/sanksi apabila di kemudian hari ditemukan adanya pelanggaran etika keilmuan atau ada klaim dari pihak lain terhadap keaslian karya saya ini.

Bandung, Agustus 2022

Yang membuat pernyataan



Asep Kurnia Jayadinata

UCAPAN TERIMA KASIH

Seraya memanjatkan puji dan syukur kehadirat Allah *Subhanahu wa Ta'ala* atas rahmat, taufik, dan hidayah-Nya penulis mampu menyelesaikan disertasi dengan judul “Studi *Science Technology and Society* (STS) pada pendidikan lingkungan melalui bibliometrik dalam mengembangkan kesadaran lingkungan”, sebagai bagian dari syarat untuk memperoleh gelar Doktor Ilmu Pendidikan pada Program Studi Pendidikan Umum dan Karakter Sekolah Pascasarjana Universitas Pendidikan Indonesia. Shalawat dan salam semoga selalu terlimpah curah kepada Nabi besar Muhammad SAW.

Penulis menyadari sepenuhnya bahwa disertasi ini dapat diselesaikan berkat dukungan, bantuan, dan arahan dari berbagai pihak. Oleh karena itu, dari lubuk hati yang paling dalam penulis sampaikan ucapan terima kasih kepada:

1. Bapak Prof. Dr. M. Solehuddin, M.Pd., M.A., sebagai Rektor UPI Bandung, yang telah memberi kesempatan kepada penulis untuk menyelesaikan studi pada Program Studi Pendidikan Umum dan Karakter, Sekolah Pascasarjana, UPI Bandung.
2. Prof. Dr. H. Syihabuddin, M.Pd., sebagai Direktur Sekolah Pascasarja UPI Bandung, yang telah memberi kesempatan kepada penulis untuk menyelesaikan studi di Program Studi Pendidikan Umum dan Karakter, Sekolah Pascasarjana, UPI Bandung.
3. Bapak Prof. Dr. Kama Abdul Hakam, M.Pd., sebagai Promotor yang telah memberikan arahan, bimbingan, motivasi dan pencerahan, selama penulis menempuh studi S3, terutama pada proses penyelesaian tugas akhir penelitian dan penulisan disertasi pada Prodi Pendidikan Umum dan Karakter, Sekolah Pascasarjana, UPI Bandung.
4. Bapak Prof. Dr. Tatang Muhtar, M.Si., sebagai Kopromotor yang dengan penuh kesungguhan memberikan arahan, bimbingan, dan bantuan yang sangat berharga sehingga penulis dapat menyelesaikan penelitian dan penulisan disertasi ini.

5. Bapak Prof. Dr. H. Encep Syarief Nurdin, M.Pd., M.Si., selaku Ketua Program Studi Pendidikan Umum dan Karakter Sekolah Pascasarja UPI Bandung, atas dorongan, bantuan, dan motivasi yang telah diberikan agar penulis dapat terus memelihara semangat dan daya juang dalam menyelesaikan studi.
6. Bapak Prof. Dr. H. Yudha Munajat Saputra, M.Ed., sebagai Direktur UPI Kampus Sumedang, yang telah memberikan ijin untuk melanjutkan pendidikan di Program Studi Pendidikan Umum dan Karakter, Sekolah Pascasarjana, UPI Bandung.
7. Bapak Dr. Maulana, S.Pd., MPd., selaku wakil direktur, Bapak. Dr. Julia, S.Pd., M.Pd., selaku ketua program studi PGSD, dan rekan-rekan dosen program studi UPI Kampus Sumedang, yang telah banyak membantu dan memberikan dukungan kepada penulis dalam menyelesaikan studi di Program Studi Pendidikan Umum dan Karakter, Sekolah Pascasarjana, UPI Bandung.
8. Ibu Rina selaku staf Prodi Pendidikan Umum dan Karakter yang telah memberikan pelayanan administrasi dengan penuh perhatian, sabar, dan telaten selama penulis menjalani rangkaian proses studi S3 pada Sekolah Pascasarjana UPI Bandung.
9. Teman-teman seperjuangan dalam perkuliahan studi S3 pada Prodi Pendidikan Umum dan Karakter Sekolah Pascasarjana UPI Bandung.
10. Bapak Kolonel Mar. (Purn). Dr. Awik Suprawito, M.Si, Beserta Ibu, yang telah memberikan arahan dan bimbingan, dalam melanjutkan pendidikan.
11. Ibu R. Supriyanti Suhandi, Bunda Suhartati Sutrisyo dan Om Alfi N Rustam, yang telah memberikan semangat dan dukungan pada penulis dalam penyelesaian studi.
12. Ayahanda (Alm) H. Tata Taryadi dan Ibunda terkasih Hj. Komariah, dengan semangat doa dan dukungan dari beliau, penulis mendapat kesempatan melanjutkan pendidikan.
13. Bapak Mertua (Alm) R. Suhandi dan Ibu Mertua Hj. Imas Masitoh yang dengan kesabarannya, selalu berdoa dan memberikan dukungan bagi penulis.
14. Istriku tercinta dan satu satunya Rr. Sumiyati, S. Pd, yang dengan tulus setia berkorban moril dan materil dan mendukung sepenuhnya bagi penulis dalam menyelesaikan studi, serta anak-anaku tercinta Nadia Rizki Nur Adibah, Azka Kusuma Jayadinata, dan Azhar Putra Jayadinata, yang menjadi penyemangat bagi penulis.

15. Seluruh keluarga besar kaka, adik serta keponakan yang senantiasa memberikan semangat, dukungan dan doa kepada penulis.
16. Kepada semua pihak yang tidak dapat disebutkan satu persatu, Penulis hanya dapat mengucapkan terima kasih dan doa semoga semua amal kebaikan yang telah diberikan mendapatkan imbalan yang berlipat ganda dari Allah SWT. Aamiin.

Bandung, 2 Agustus 2022

Penulis

ABSTRAK

Permasalahan lingkungan global semakin kompleks akibat penggunaan teknologi modern membutuhkan pengembangan metodologi pembelajaran pada pendidikan lingkungan berorientasi masalah. Penelitian bertujuan mengembangkan model pembelajaran *Science Technology and Society* (STS) tentang lingkungan berlandaskan nilai-nilai kebangsaan dan prinsip-prinsip etika lingkungan melalui hasil analisis bibliometrik dalam mengembangkan kesadaran lingkungan. Hasil analisis bibliometrik diperlukan untuk memberikan arahan dan peluang yang diperlukan dalam pengembangan model pembelajaran STS berdasarkan pemikiran peneliti sebelumnya. Metode penelitian menggunakan pendekatan kuantitatif deskriptif dengan menggunakan analisis bibliometrik untuk menganalisis data bibliografi studi STS terindeks Scopus periode tahun 1970-2021. Hasil penelitian, yaitu: 1) perkembangan studi STS dari 480 dokumen dipublikasikan sejak tahun 1981-2021 (11 buku, 28 buku chapter, 90 artikel konferensi, dan 351 artikel jurnal); 2) perkembangan studi STS pada pendidikan lingkungan dari 48 dokumen dipublikasikan sejak 1985-2021 (4 buku chapter, 4 artikel konferensi, dan 40 artikel jurnal); 3) perkembangan artikel jurnal studi STS dari 351 dokumen dipublikasikan sejak tahun 1981-2021, dikutip sebanyak 6.854, dan artikel terbanyak dikutip ditulis Zeidler dkk (2005); 4) perkembangan artikel jurnal studi STS pada pendidikan lingkungan dari 40 dokumen dipublikasikan sejak tahun 1985-2021, dikutip sebanyak 1.058, dan artikel terbanyak dikutip ditulis Hodson (2003); 5) istilah judul dan abstrak terbanyak menggunakan istilah “*science*”; istilah kata kunci terbanyak digunakan “*science education*”; 6) artikel jurnal rujukan model pembelajaran yaitu: Rubba dan Wiesenmayer (1985), dan J. M. Ramsey dan Kronholm (1991); 7) sintaks pengembangan model pembelajaran STS, yaitu: 1) pondasi STS, 2) kesadaran terhadap isu STS, 3) investigasi isu STS, dan 4) pengembangan keterampilan aksi STS.

Kata Kunci: Science Technology and Society (STS), pendidikan lingkungan, kesadaran lingkungan, analisis bibliometrik

ABSTRACT

Global environmental problems are increasingly complex effect use of modern technology need development of learning methodologies problem-oriented environmental education. Research aims develop a Science Technology and Society (STS) learning model on the environment based national values and environmental ethical principles through results of bibliometric analysis in developing environmental awareness. Results of the bibliometric analysis are needed to provide necessary direction and opportunities in development of the STS learning model based on the thoughts of previous researchers. Research method uses descriptive quantitative approach using bibliometric analysis to analyze bibliographic data of the Scopus indexed STS study for period 1970-2021. Results of research, namely: 1) development STS study from 480 documents published since 1981-2021 (11 books, 28 chapter books, 90 conference articles, and 351 journal articles); 2) development of STS study on environmental education from 48 documents published since 1985-2021 (4 chapter books, 4 conference articles, and 40 journal articles); 3) development of STS study journal articles from 351 documents published since 1981-2021, cited as many as 6,854, and most cited articles were written by Zeidler et al (2005); 4) development of STS study journal articles on environmental education from 40 documents published from 1985-2021, cited as many as 1,058, and most cited articles were written by Hodson (2003); 5) term title and abstract mostly use term “science”; most used keyword term is “science education”; 6) learning model reference journal articles, namely: Rubba and Wiesenmayer (1985), and J. M. Ramsey and Kronholm (1991); 7) syntax for developing STS learning model, namely: 1) STS foundation, 2) STS issues awareness, 3) STS issue investigation, and 4) STS action skills development.

Keyword: Science Technology and Society (STS), environmental education, environmental awareness, bibliometric analysis

KATA PENGANTAR

Penelitian dengan judul Studi *Science Technology and Society* (STS) pada pendidikan lingkungan melalui Bibliometrik dalam mengembangkan kesadaran lingkungan ini bertujuan untuk melakukan kajian bibliografi pada studi STS dalam konteks pendidikan lingkungan atau pendidikan tentang lingkungan sebagai upaya meningkatkan kesadaran terhadap lingkungan.

Disertasi ini, terdiri dalam lima bagian. Pada bab pertama berisi tentang latar belakang masalah, rumusan masalah, tujuan dan manfaat dari hasil penelitian serta kerangka struktur organisasi disertasi. Pada bab kedua dikemukakan tentang 1) landasan teori tentang studi *Science, Technology and Society* (STS), pendidikan lingkungan dalam konteks STS, kesadaran lingkungan dalam konteks STS, studi bibliometrik dalam konteks STS, pendidikan umum dan karakter melalui STS dalam mengembangkan karakter lingkungan; 2) penelitian terdahulu yang relevan, 3) kerangka berpikir, dan 4) hipotesis penelitian. Pada bab tiga dikemukakan tentang desain penelitian, populasi dan sampel, instrumen penelitian, prosedur penelitian, analisis data, definisi operasional. Pada bab empat dibagi atas dua bagian, yaitu temuan hasil penelitian, dan pembahasan hasil penelitian. Pada bagian akhir ditutup oleh bab ke lima yang berisi simpulan, implikasi dan rekomendasi.

Penulis berharap hasil penelitian ini dapat memberikan sumbangsih bagi peningkatan kualitas dan kreatifitas dalam praktek pembelajaran *science, technology and society* (STS) pada pendidikan lingkungan, serta dalam membentuk pribadi peserta didik yang memiliki kesadaran lingkungan. penulis menyadari bahwa penelitian ini masih jauh dari sempurna dan terdapat kekurangan, sehingga kritik dan saran sangat penulis harapkan.

Bandung, Agustus 2022

Asep Kurnia Jayadinata

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