

Khoiriah. 2033031014. *Pengembangan Model Pembelajaran ARISE Berbasis Socio Scientific Issue untuk Menstimulasi Scientific Communication Skills*. Disertasi. Promotor: Prof. Dr. Agus Suyatna, M.Si., Copromotor: Prof. Dr. Abdurrahman, M.Si., dan Dr. Tri Jalmo, M.Si. Program Studi Doktor Pendidikan, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Lampung.

ABSTRAK

Penelitian ini bertujuan mengembangkan model pembelajaran *aware, read, interact, share, dan evaluate (ARISE)* berbasis *socio scientific issue (SSI)* yang valid, praktis, dan efektif untuk menstimulasi *scientific communication skills (SCS)* pada peserta didik SMP di wilayah *urban, semiurban, dan rural* dengan kecenderungan gaya belajar visual, auditori, dan kinestetik.

Penelitian ini menggunakan prosedur *R and D* mengacu Borg and Gall meliputi tahap studi pendahuluan, pengembangan, dan pengujian. Aktivitas studi pendahuluan terdiri dari studi literatur dan studi lapangan. Tahap pengembangan mendesain draft model pembelajaran *ARISE* berbasis *SSI*, validasi teoritis oleh 5 validator ahli, dan uji coba terbatas. Tahap pengujian dilakukan uji coba lapangan.

Tahap studi pendahuluan melibatkan 2.436 peserta didik kelas VIII SMP se-Indonesia, tahap pengembangan menggunakan 3 kelas VIII SMP, sedangkan tahap pengujian mengikutsertakan 6 kelas VII di tiga kabupaten/kota Provinsi Lampung. Pengumpulan data tahap studi pendahuluan menggunakan *SCSI*, tahap pengembangan memakai instrumen validasi teoritis dan empiris juga instrumen uji kepraktisan, sedangkan tahap pengujian memakai instrumen asesmen *SCS*, instrumen observasi keterlaksanaan pembelajaran, kemampuan guru model dalam mengelola pembelajaran, aktivitas peserta didik, serta tanggapan guru model dan peserta didik terhadap pembelajaran. Data pada tahap studi pendahuluan dan pengembangan dianalisis secara deskriptif kualitatif, sedangkan tahap pengujian dianalisis secara deskriptif kualitatif dan statistik inferensial.

Hasil studi lapangan ditemukan bahwa sebagian besar peserta didik kelas VIII SMP se-Indonesia memiliki keterampilan *SCS listening and observing* cukup baik tetapi keterampilan *SCS* lainnya *information retrieval, scientific reading, scientific writing, information representation, dan knowledge presentation* masih tergolong rendah. Hasil studi literatur diketahui bahwa model pembelajaran yang sejauh ini berkembang di Indonesia dinyatakan mampu menstimulasi *SCS* tetapi masih terbatas mengembangkan *knowledge presentation*. Data studi pendahuluan ini memberi petunjuk bahwa pengembangan kompetensi *SCS* perlu dilakukan. Penelitian tahap pengembangan menunjukkan hasil bahwa model pembelajaran *ARISE* berbasis *SSI* dinyatakan memiliki validitas dan kepraktisan terkategori sangat tinggi sehingga layak digunakan dalam pembelajaran menstimulasi *SCS*. Hasil penelitian pada tahap pengujian menyimpulkan bahwa model pembelajaran *ARISE* berbasis *SSI* efektif menstimulasi *SCS* peserta didik SMP di wilayah *urban, semiurban, dan rural* dengan gaya belajar visual, auditory, dan kinestetik.

Kata kunci: model pembelajaran *ARISE* berbasis *socio scientific issue, scientific communication skills, urban, semiurban, rural, gaya belajar*.

Khoiriah. 2033031014. Development of the ARISE Learning Model Based on Socio Scientific Issue to Stimulate Scientific Communication Skills. Dissertation. Promoter: Prof. Dr. Agus Suyatna, M.Si., Copromoter: Prof. Dr. Abdurrahman, M.Si., and Dr. Tri Jalmo, M.Si. Doctor of Education Study Program, Faculty of Teacher Training and Education, University of Lampung.

ABSTRACT

This study aims to develop a valid, practical, and effective learning model of aware, read, interact, share, and evaluate (ARISE) based on socio scientific issues (SSI) to stimulate scientific communication skills (SCS) in junior high school students in urban, semiurban, and rural with a tendency towards visual, auditory, and kinesthetic learning styles.

This study uses the R and D procedure referring to Borg and Gall which includes the preliminary study, development, and testing stages. Preliminary study activities consist of literature studies and field studies. The development stage designed ARISE learning model based on SSI, theoretical validation by 5 expert validators, and limited trials. The testing phase was carried out by field trials.

The preliminary study phase involved 2.436 class VIII students of junior high schools throughout Indonesia, the development stage used 3 class VIII junior high schools, while the testing phase included 6 class VII in three districts/cities of Lampung Province. The data collection stage of the preliminary study used SCS, the development stage used theoretical and empirical validation instruments as well as practicality test instruments, while the testing phase used the SCS assessment instrument, the observation instrument of learning implementation, the model teacher's ability to manage learning, student activities, and the model teacher's responses and students towards learning. Data in the preliminary study and development stages were analyzed descriptively qualitatively, while the testing phase was analyzed descriptively qualitatively and inferential statistics.

The results of the field study found that most of the eighth-grade students of junior high schools in Indonesia had quite good SCS listening and observing skills, but the other SCS skills were information retrieval, scientific reading, scientific writing, information representation, and knowledge presentation which were still relatively low. The results of the literature study show that the learning model that has so far developed in Indonesia is stated to be able to stimulate SCS but is still limited in developing knowledge presentation. This preliminary study data indicates that SCS competency development needs to be carried out. Research at the development stage showed the results that ARISE learning model based on SSI was stated to have very high validity and practicality so it was feasible to use in the SCS stimulating learning process. The results of the research at the testing stage concluded that ARISE learning model based on SSI was effective in stimulating the SCS of junior high school students in urban, semiurban, and rural areas with visual, auditory and kinesthetic learning styles.

Keywords: ARISE learning model based on socio scientific issues, scientific communication skills, urban, semiurban, rural, learning styles.