DEVELOPMENT OF SUPPLEMENTAL BLENDED LEARNING MODEL BASED ON NATURE OF SCIENCE FOR SENIOR HIGH SCHOOL CHEMISTRY LEARNING IN A DRIVING SCHOOL AND ITS EFFECT ON SCIENTIFIC LITERACY AND DIGITAL LITERACY OF STUDENTS

by Jaslin Ikhsan, Indyah Sulistyo Arty, Elsa Sriwahyuni

ABSTRACT

Scientific Literacy and Digital Literacy are two of the various types of literacy stated in various literature that must be mastered by students. Scientific Literacy refers to skills in utilizing everything about science to find solutions to daily life problems. Through science learning, one of which is Chemistry, it is hoped Students' scientific literacy is adequate for their future life. But many The literature states that in general the scientific literacy of students in Indonesia is still low low. Likewise with Digital Literacy, many literature states that the level of Digital Literacy In general, students in Indonesia are still low. Even though learning is now starting to shift from offline to online gradually which really requires good Digital Literacy. The implementation of a driving school curriculum (prototype curriculum) during the Covid-19 pandemic is demanding teachers to be able to prepare the learning process by utilizing a mixed learning environment between offline and online which is known as Blended Learning. But so far teachers still encountered obstacles in designing a Blended Learning learning model that was appropriate to needs and conditions of students. This condition is indeed something that is not uncommon in the world education, as stated in the RIRN document, the low ability and mastery of science and technology is caused by failure in policy implementation. The meaning is weak linkage between hard technology and soft technology.

This research aims to produce a learning model called SBL-NoS (Supplemental Blended Learning Based on the Nature of Science) which is feasible, effective and has a positive influence on increasing the Science Literacy and Digital Literacy of High School Students in learning Chemistry in schools that implement a prototype curriculum. It is hoped that this research can make a contribution and in line with the focus of educational research in the RIRN document, namely the study of human resources for supporting character education and competitiveness.

The development model used is the ADDIE model which consists of 5 stages, namely 1) Analysis, 2) Design, 3) Development, 4) Implementation, and 5) Evaluation. Five stages of ADDIE development implemented within a period of two years. The first year will carry out stages 1 to 3, and continued in the second year, stage 4 to stage 5. Based on these stages, the outcomes Mandatory targeted research for each year is articles published in journals Internationally indexed by reputable indexers. For additional output in the first year, namely in the form of a simple patent for the Scientific Literacy (Chemistry) instrument for class X high school students, and in the second year is an article in an International Journal.Currently, TKT 1 is 80% fulfilled, namely R&D is needed to support policy government; the R&D background and objectives have been defined; there are R&D questions you would like is known; and basic facts and arguments that are relevant and support the need for R&D. So also with TKT 2 where 3 indicators have reached 80%, namely the R&D hypothesis has been prepared; design the R&D to be carried out has been explored; and alternative methodologies, procedures and stages that will be carried out carried out has been explored, but 1 indicator is related to initial data support for R&D questions that need to be answered are still at 40% of achievement. TKT to be achieved at the end research is TKT 3, namely TKT 2 perfected in the first year and TKT 3 in the second year.

Kata Kunci: *Scientific Literacy, Digital Literacy, Supplemental Blended Learning, Nature of Science*