

The Use of Lingsan Media (ASEAN Tour) in Science Learning for Grade VI of Curug State Elementary School to Improve 21st Century Skills

Bekti Kuat Pamungkas¹, Wakhudin²

¹SD Negeri Curug, Banyumas

²Magister Pendidikan Dasar, Universitas Muhammadiyah Purwokerto

ARTICLE INFO

Article history:

DOI:

[10.30595/pssh.v25i.1711](https://doi.org/10.30595/pssh.v25i.1711)

Submitted:

July 22, 2025

Accepted:

August 11, 2025

Published:

August 24, 2025

Keywords:

21st Century Skills; Science Learning; Lingsan Media (ASEAN Tour)

ABSTRACT

Education aims to form quality Human Resources so that they can always keep up with developments in the 21st century. 21st century education requires students to have communication, collaboration, critical thinking, creativity, citizenship and character skills. In line with the implementation of the Independent Curriculum which requires students to develop holistically. In the Independent Curriculum we are familiar with science and education learning. Science and education learning aims for students to be able to think critically about nature, develop character and citizenship. In reality, science and education learning in grade VI of Curug State Elementary School experienced obstacles so that it was not successful, especially the ASEAN material. Seeing this reality, the researcher tried to apply Lingsan (ASEAN Tour) media. The purpose of applying this media is to improve 21st century skills. So the purpose of the study is to find out whether the application of Lingsan (ASEAN Tour) media can improve the 21st century skills of Curug State Elementary School students. This study uses qualitative research with a case study method. This study uses observation, interview and documentation techniques to collect data. The data is analyzed descriptively. This study also uses data analysis techniques through data reduction, data presentation and drawing conclusions. And using data validity techniques through the stages of credibility, transferability, accountability and proof. Lingsan Media (ASEAN Tour) was created by utilizing ICT in the form of a laptop. This media is in the form of two ASEAN maps. This media has been proven to improve 21st century skills as seen from the results of observations, interviews and documentation. The results of this study support the development of 21st century skills in elementary schools through digital learning.

This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).



Corresponding Author:

Bekti Kuat Pamungkas

SD Negeri Curug, Banyumas

Email: bektikuatpamungkas@gmail.com

1. INTRODUCTION

Basically, education is used to create learning conditions, a learning atmosphere, and a learning process so that students can actively improve their abilities so that they have religious strength, the ability to control themselves, develop personality, intelligence, noble morals, and various skills that are very necessary for

themselves, as well as for life in society, the nation, and the state¹. The progress of a nation is determined by education. With education, the government hopes to form quality human resources. Namely, humans who can continuously develop their abilities in accordance with the development of the era in the 21st century².

In the 21st century, humans must have competitive, comparative, collaborative, and innovative abilities. Thus, humans will more easily receive information to face the increasingly rapid and sophisticated changes of the times. In addition, education in the 21st century requires students to have communication, collaboration, critical thinking, creativity, citizenship and character skills³. 21st century education combines several abilities, including knowledge, attitudes, skills, and mastery of Information and Communication Technology (ICT). With these abilities, students will be ready to compete in the global world facing other countries. So that Indonesia can be on par with other countries.

Likewise, the Independent Curriculum requires students to develop holistically. In the Independent Curriculum, there are several subjects, including the subject of science and natural sciences. Science and natural sciences learning in elementary schools also aims for students to be able to think critically about nature, develop character and citizenship⁴. Through science learning, students are expected to be happier in learning. So that the understanding of the subject matter is deeper and more memorable. If this is achieved, students will feel the benefits and meaning of learning.

In reality, science learning in grade VI of Curug State Elementary School experiences obstacles so that it often fails. Through existing observations, the obstacles are mainly in the ASEAN material. Students feel that the learning is difficult, boring, and uninteresting. Students appear lazy, passive, and not focused on learning. On the other hand, success in implementing learning in the classroom is the desire of educators. Educators want to have students who have communication skills, collaboration, critical thinking, creativity, citizenship and character⁵.

Therefore, educators as the spearhead in learning must be more creative, sensitive to the material, and innovative. Educators do not only pay attention to the breadth of the material and how to deliver the material but must be adjusted to the development of students. The condition of good student development is very much determined by changes in the learning environment that are more creative and innovative. This can cause feelings of joy to arise in students, enthusiasm and without feeling pressured in the learning process.

Related to this, researchers try to innovate learning by using Lingsan (ASEAN Tour) media. Researchers are interested in conducting research and proving how effective Lingsan (ASEAN Tour) media can improve 21st century skills in Class VI Science learning at Curug State Elementary School.

2. RESEARCH METHODS

Research on how to improve 21st century skills in science learning using Lingsan (ASEAN Tour) media was conducted at Curug State Elementary School located on Jalan Raya Curug-Binangun, Binangun Village, Banyumas District, Banyumas Regency. The subjects in the study were five students in grade VI of Curug State Elementary School. Namely two students who have learning completeness above KKTP, two students who have completeness equal to KKTP and one student who has completeness below KKTP in class VI science material.

This selection is based on the researcher's observation activities carried out on students. Also researcher discussion activities and document studies carried out with other educators. The research was conducted from March to April 2025. The research uses qualitative research with a case study approach. Where this research consists of the preparation, implementation and data analysis stages⁶. The case study approach is used because it analyzes the implementation of Lingsan (ASEAN Tour) media in science learning to improve 21st century skills. Case studies are used to research more deeply and identify specific cases⁷.

Researchers also use observation, interview and documentation techniques. Observation is one of the empirical scientific activities based on facts based on the five senses⁸. Observations were conducted on students and educators in the classroom while using Lingsan (ASEAN Tour) media in science learning. Researchers also

¹ Al Firman and Yakobus Ndona, 'Peran Pendidikan Dalam Membangun Sikap Ketuhanan Yang Maha Esa', *Jurnal Bintang Pendidikan Indonesia*, 2.3 (2024), 66–72 <<https://doi.org/10.55606/jubpi.v2i3.3013>>.

² Celyna Isnaeni Septia Puspa, Dini Nur Oktavia Rahayu, and Muhamad Parhan, 'Transformasi Pendidikan Abad 21 Dalam Merealisasikan Sumber Daya Manusia Unggul Menuju Indonesia Emas 2045', *Jurnal Basicedu*, 7.5 (2023), 3309–21 <<https://doi.org/10.31004/basicedu.v7i5.5030>>.

³ Ikmi Nur Oktavianti and Icu Prayogi, *Korpus Pembelajaran Sebagai Big Data Dalam Pengajaran Bahasa Inggris Di Era Masyarakat 5.0, Transformasi Pendidikan Abad XXI : Sebuah Bunga Rampai*, 2024.

⁴ Peserta Didik and others, '3 1,2,3', 09 (2024).

⁵ Jurnal Pendidikan and Sekolah Dasar, 'The Role of 6C Skills in 21st Century Learning of Elementary School Students', 2024.

⁶ Jurnal Teknologi and others, 'Pendekatan Kualitatif Dalam Penelitian : Strategi , Tahapan , Dan Analisis Data Jurnal Teknologi Pendidikan Dan Pembelajaran (JTPP)', 02.03 (2025), 793–800.

⁷ Teknologi and others.

⁸ Hasyim Hasanah, 'TEKNIK-TEKNIK OBSERVASI (Sebuah Alternatif Metode Pengumpulan Data Kualitatif Ilmu-Ilmu Sosial)', *At-Taqaddum*, 8.1 (2017), 21 <<https://doi.org/10.21580/at.v8i1.1163>>.

used interviews to seek information conducted with educators and students to obtain information about the effectiveness of implementing Lingsan (ASEAN Tour) media in science subjects. Interviews are activities to seek in-depth information about respondents' views or experiences through direct communication⁹.

Another technique is using documentation. Documentation should be optimized for its use because there are many sources of information stored¹⁰. Documentation is carried out on student learning outcomes during learning. The research also uses two data, namely primary data and secondary data. Primary data as the main data¹¹. Primary data uses students and educators in class. Secondary data as supporting data consists of school documentation, both documentation of students and educators during learning¹². The data analysis technique used is data triangulation¹³.

Researchers create narratives that are divided into several flows that are carried out sequentially, including data reduction, data presentation and drawing conclusions. Researchers also use data validation techniques through 4 stages that end with proof¹⁴. After data validation is carried out, it is hoped that it will produce accurate results.

3. RESULTS AND DISCUSSIONS

The learning innovation that researchers create is based on the theory of situated learning. In this theory, the most important component in learning is social interaction, where students are involved in direct practice in technology-based learning at school¹⁵. Based on this theory, Lingsan (ASEAN Tour) media is an example of media that is in accordance with the theory of situated learning because it is technology-based. Students also practice directly on Lingsan (ASEAN Tour) media. Another theory that is used as a basis is the e-learning theory. This theory is a development of the cognitive load theory.

This theory describes the principles of cognitive science of effective multimedia learning using electronic technology. The results of this research and cognitive technology show that choosing appropriate multimedia-based learning can improve learning¹⁶. According to the theory, Lingsan (ASEAN Tour) media is a media that uses electronic technology. This media also develops cognitive sciences. The stages of implementing Lingsan (ASEAN Tour) media in science learning are that students are divided into 9 groups (collaboration skills) so that each group consists of 4 people with 1 laptop facility.

The teacher conveys the tasks that each student must do and explains how to use Lingsan (ASEAN Tour) media. Then each student practices using Lingsan (ASEAN Tour) media and student representatives make a presentation (communication skills) of the results of practicing using Lingsan (ASEAN Tour) media, while other students respond. Then, each group makes an ASEAN map from used materials (critical thinking skills). Each group takes turns presenting the map they made and other students respond. Continued, each student makes a story about the profile of ASEAN countries from the results of observations and makes conclusions from the map to be presented (creative skills).

Then in groups, students are asked to search for pictures of rare animals using the internet network and make posters to preserve these rare animals (citizenship and character). Researchers use observation sheets, interviews and documentation as measuring tools in assessing the effectiveness of Lingsan (ASEAN Tour) media. In observation activities, researchers use observation sheets. Observation sheets are used to assess the effectiveness of the success of improving 21st century skills. Among them are to measure communication skills, collaboration, critical thinking, creativity, citizenship and character.

To measure communication skills is done during presentations. Measurements include aspects of communication, appearance, systematic delivery, and courage. Measurement of collaboration skills is seen during group discussions. Aspects measured include listening skills, verbal communication, and participation. Measurement of critical thinking skills is done when making maps from used materials. Aspects assessed include the selection and use of materials, planning and design, ideas and innovation. Measurement of creative skills is

⁹ Wawancara D A N Kuesioner, 'Teknik Pengumpulan Data', 3.1, 39–47.

¹⁰ Ratri Ayumsari, 'Peran Dokumentasi Informasi Terhadap Keberlangsungan Kegiatan Organisasi Mahasiswa', *Tibandaru : Jurnal Ilmu Perpustakaan Dan Informasi*, 6.1 (2022), 63–78 <<https://doi.org/10.30742/tb.v6i1.2044>>.

¹¹ Meita Sekar Sari and Muhammad Zefri, 'Pengaruh Akuntabilitas, Pengetahuan, Dan Pengalaman Pegawai Negeri Sipil Beserta Kelompok Masyarakat (Pokmas) Terhadap Kualitas Pengelola Dana Kelurahan Di Lingkungan Kecamatan Langkapura', *Jurnal Ekonomi*, 21.3 (2019), 311.

¹² Communnity Development Journal and others, 'PENGELOLAAN DATA SISWA PADA SMA SWASTA NUSANTARA', 5.6 (2024), 12961–65.

¹³ Andarusni Alfansyur and Mariyani, 'Seni Mengelola Data : Penerapan Triangulasi Teknik , Sumber Dan Waktu Pada Penelitian Pendidikan Sosial', *Historis*, 5.2 (2020), 146–50.

¹⁴ Alfansyur and Mariyani.

¹⁵ Bima Sayoga Putra, Yerry Soepriyanto, and Susilaningih, 'Novel Chat Sebagai Inovasi Media Pembelajaran Sosiologi Materi Bentuk Interaksi Sosial', *JKTP: Jurnal Kajian Teknologi Pendidikan*, 5.1 (2022), 42–51 <<https://doi.org/10.17977/um038v5i12022p042>>.

¹⁶ Nuryadi Nuryadi, 'Pengembangan Media Pembelajaran Interaktif Berbasis Lms Moodle Ditinjau Dari Cognitive Loads Theory', *EDUSCOPE: Jurnal Pendidikan, Pembelajaran, Dan Teknologi*, 5.2 (2020), 18–26 <<https://doi.org/10.32764/eduscope.v5i2.779>>.

seen when making stories about ASEAN country profiles. Aspects measured are originality of ideas, language style, story structure and use of visual media.

Measurement of citizenship and character is seen from the ability to make posters for preserving endangered animals. Aspects measured are environmental awareness, social responsibility, integrity and visual ethics. Another measuring tool is an interview. The researcher conducted interviews with students and educators. The researcher made closed statements that must be answered by students and contained students' experiences after implementing Lingsan (ASEAN Tour) media in science learning. The aspects of the interview include students' interest in using Lingsan (ASEAN Tour) media, students' feelings after using Lingsan (ASEAN Tour) media, ease of using Lingsan (ASEAN Tour) media and their opinions about the statement of agreement that Lingsan (ASEAN Tour) media can improve 21st century skills.

The last measuring tool is documentation. Documentation is carried out during the use of Lingsan (ASEAN Tour) media and student learning outcomes. Observation results on communication skills show that most students have quite good verbal communication skills, confident appearance, deliver material coherently and students appear enthusiastic and more confident. Observation results on collaboration skills show that most students actively listen, students express their opinions clearly and students actively express their opinions. Observation results on critical thinking skills show that most students have been able to choose appropriate used materials, students are able to make good designs, students provide various interesting ideas and innovations.

Observation results on creative skills show that most students have original ideas, interesting language style, logical story structure, and appropriate use of visuals. Observation results on citizenship and character assessments show that most students have high environmental awareness, high social responsibility, demonstrate honesty in creating educational works and visual effects. The results of interviews about students' interest in using Lingsan (ASEAN Tour) media showed that students were very interested in using this media. The results of interviews regarding students' feelings after using Lingsan (ASEAN Tour) media showed that students were very happy.

The results of interviews regarding the ease of using Lingsan (ASEAN Tour) media showed that Lingsan (ASEAN Tour) media was easy to use. And the results of interviews regarding their opinions about the statement of agreement that Lingsan (ASEAN Tour) media can improve 21st century skills showed that they agreed. The last measuring instrument is documentation. Documentation was carried out during the use of Lingsan (ASEAN Tour) media showing that students were active. The learning outcomes of students in the form of objects also looked creative and innovative. Observations on communication skills showed that students' high abilities were influenced by internal and external factors.

Presentation exercises with feedback from teachers accompanied by group discussions increased students' courage, while observations on collaboration skills were influenced by biological, social and psychological factors. Teachers need to create a conducive climate of security to improve collaboration. Observations on critical thinking skills are a complex level to evaluation. This media has been proven to boost students' cognitive abilities. Observations on creative skills prove students' ability to be creative and improve their literacy skills.

Observations on aspects of citizenship and character explain that the character values that emerge in students are in accordance with the profile of Pancasila students. Referring to the results of the interview as a whole, it proves that the application of Lingsan (ASEAN Tour) media in science learning can improve 21st century skills. The results of the documentation also support this statement.

4. CONCLUSIONS

The innovation work that researchers applied to science learning at Curug State Elementary School using LINGSAN (ASEAN Tour) media has succeeded in improving 21st century skills. Lingsan (ASEAN Tour) media is classified as an interactive and innovative learning media. With this media, students who were previously passive in receiving lessons, change their function to become active. So that learning is no longer centered on educators but centered on students. This activity includes actively practicing critical thinking to solve problems, practicing communication, practicing creativity and innovation, and practicing collaboration. In learning using this media, the character and citizenship of students are formed.

REFERENCES

- Al Firman and Yakobus Ndona, 'Peran Pendidikan Dalam Membangun Sikap Ketuhanan Yang Maha Esa', *Jurnal Bintang Pendidikan Indonesia*, 2.3 (2024), 66–72 <<https://doi.org/10.55606/jubpi.v2i3.3013>>.
- Celyna Isnaeni Septia Puspa, Dini Nur Oktavia Rahayu, and Muhamad Parhan, 'Transformasi Pendidikan Abad 21 Dalam Merealisasikan Sumber Daya Manusia Unggul Menuju Indonesia Emas 2045', *Jurnal Basicedu*, 7.5 (2023), 3309–21 <<https://doi.org/10.31004/basicedu.v7i5.5030>>.

- Ikmi Nur Oktavianti and Icu Prayogi, *Korpus Pembelajar Sebagai Big Data Dalam Pengajaran Bahasa Inggris Di Era Masyarakat 5.0, Transformasi Pendidikan Abad XXI : Sebuah Bunga Rampai*, 2024
- Shorihatul Inayah, *PENDIDIKAN ABAD 21 YULie*, *Researchgate.Net*, 2024
<https://www.researchgate.net/profile/Shorihatul-Inayah/publication/379541897_PENDIDIKAN_ABAD_21/links/660e3e01f5a5de0a9ffb5782/PENDIDIKAN-ABAD-21.pdf>.
- Peserta Didik and others, '3 1,2,3', 09 (2024)
- Jurnal Pendidikan and Sekolah Dasar, 'The Role of 6C Skills in 21st Century Learning of Elementary School Students', 2024.
- Jurnal Teknologi and others, 'Pendekatan Kualitatif Dalam Penelitian : Strategi , Tahapan , Dan Analisis Data Jurnal Teknologi Pendidikan Dan Pembelajaran (JTPP)', 02.03 (2025), 793–800.
- Teknologi and others.
- Hasyim Hasanah, 'TEKNIK-TEKNIK OBSERVASI (Sebuah Alternatif Metode Pengumpulan Data Kualitatif Ilmu-Ilmu Sosial)', *At-Taqqaddum*, 8.1 (2017), 21 <<https://doi.org/10.21580/at.v8i1.1163>>
- Wawancara D A N Kuesioner, 'Teknik Pengumpulan Data', 3.1, 39–47.
- Ratri Ayumsari, 'Peran Dokumentasi Informasi Terhadap Keberlangsungan Kegiatan Organisasi Mahasiswa', *Tibannbaru : Jurnal Ilmu Perpustakaan Dan Informasi*, 6.1 (2022), 63–78.
- Meita Sekar Sari and Muhammad Zefri, 'Pengaruh Akuntabilitas, Pengetahuan, Dan Pengalaman Pegawai Negeri Sipil Beserta Kelompok Masyarakat (Pokmas) Terhadap Kualitas Pengelola Dana Kelurahan Di Lingkungan Kecamatan Langkapura', *Jurnal Ekonomi*, 21.3 (2019), 311.
- Communnity Development Journal and others, 'PENGELOLAAN DATA SISWA PADA SMA SWASTA NUSANTARA', 5.6 (2024), 12961–65
- Andarusni Alfansyur and Mariyani, 'Seni Mengelola Data : Penerapan Triangulasi Teknik , Sumber Dan Waktu Pada Penelitian Pendidikan Sosial', *Historis*, 5.2 (2020), 146–50.
- Alfansyur and Mariyani.
- Bima Sayoga Putra, Yerry Soepriyanto, and Susilaningsih, 'Novel Chat Sebagai Inovasi Media Pembelajaran Sosiologi Materi Bentuk Interaksi Sosial', *JKTP: Jurnal Kajian Teknologi Pendidikan*, 5.1 (2022), 42–51 <<https://doi.org/10.17977/um038v5i12022p042>>.
- Nuryadi Nuryadi, 'Pengembangan Media Pembelajaran Interaktif Berbasis Lms Moodle Ditinjau Dari Cognitive Loads Theory', *EDUSCOPE: Jurnal Pendidikan, Pembelajaran, Dan Teknologi*, 5.2 (2020), 18–26 <<https://doi.org/10.32764/eduscope.v5i2.779>>.