



## ENHANCE STUDENTS' CREATIVITY AND ENVIRONMENTAL AWARENESS THROUGH SOCIAL STUDIES LEARNING BASED ON ECO-DIGITAL PEDAGOGY

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### *Abstract*

Pedagogy play a crucial role in the learning process. The implementation of pedagogy in social studies education has a specific role in preparing students to become good citizens who can contribute to solving problems in their surroundings. Environmental issues, which are one of the subjects of social studies, must receive special attention in order to address them effectively. The concept of Ecological Digital Pedagogy is one of the efforts that the education sector can undertake to prepare students to always care for their environment. The use of digital tools in education has now become a necessity to enable students to learn more effectively and innovatively, explore sources of knowledge, and solve problems creatively. The implementation of eco-digital pedagogy can be carried out using the Canva for Education application, which is accessible for free to teachers and students. This application provides various features that can be used to create and edit images and videos. In the context of environmental education, the Canva application is used to create learning content and assignments for students on efforts related to environmental preservation, disaster mitigation, waste recycling, and so on. In this way, digital learning can be achieved, rooted in efforts to promote environmental awareness and to enhance students' creativity in the learning process.

**Keywords:** *enhance, creativity, environmental awareness, eco digital pedagogy*

### PENDAHULUAN

Humans and the environment are one ecosystem and are interdependent on the surrounding environment, both the natural (physical) and social environment. Environmental conservation efforts are the responsibility of the world community as inhabitants of the earth and users of natural resources. Eryaman, et al (2017) argued that the ecological crisis is a very important issue facing all humans. Therefore, education is essential for environmental awareness development and for strengthening the ability of individuals and communities to resist actions that can lead to environmental damage.

Education has a fundamental role in helping the character of students to always have sensitivity and concern for the surrounding natural environment. This is in line with the opinion of Sapriya (2011) who argues that students need to be prepared to be able to deal with various ecological crises by forming attitudes and concerns as human responsibility for a shared future and sustainable life. According to Umar Tirtarahardja and La Sulo

(2005), education is a process of personal formation, citizen preparation, and labour preparation. To fulfil this, education should be organised comprehensively so as to accommodate all citizens to become fully human.

At this time there has been an ecological crisis, which is a crisis of relationship between humans and culture with the environment where they shelter, live, and exploit natural resources (Adiwibowo, 2007). This condition has always been a challenge for education in Indonesia to prepare and produce humans or citizens who care about environmental damage or pollution, with the hope that there will be a harmonious balance between the environment and the humans who live in it. Therefore, this paper is intended to describe educational efforts to be ecologically oriented, especially in the aspect of educational goals and their implications in the learning process. Two questions that will be answered through this paper are how are the characteristics of ecologically oriented education, and how is its implementation in

schools as a form of empowering the surrounding environment for learning.

According to research conducted by Pardinan and Loremia (2020), digital pedagogy effectively contributes to developing individual competencies in students. Similarly, research conducted by Moreno, Calderon, and Arias-Estero (2021) showed that combining Technology Pedagogical Content Knowledge (TPACK) with Collaborative Learning (CL) can improve the development of digital competencies and academic achievement of prospective teachers. academic and achievement of prospective teachers. The complexity of the relationship between technology, content, and pedagogy encourages the improvement of digital competence among prospective teachers. Therefore, this development is urgent and needs to be implemented.

Kahn (2020) defines eco-pedagogy as part of the critical education movement that emphasises the importance of ecological literacy and awareness of the planetary crisis. Eco-pedagogy aims to create a more just and sustainable world through social transformation and education that focuses on environmental issues. Bowers (2003) describes eco-pedagogy as an educational approach that emphasises the importance of communal revitalisation and ecological connectedness as an alternative to dominant views of economic growth and individualism. This approach encourages students to think critically about the impact of culture and technology on ecosystems.

Based on the above description, it can be concluded that one way to become a competent teacher in accordance with the 21st century is to have awareness, knowledge, and knowledge, and the ability to apply eco-pedagogy and digital pedagogy in the learning process. The writing of this article focuses on the combination of these two pedagogical models, namely Eco-Digital Pedagogy (EDY). This research aims to provide an overview of the implementation of EDY in social studies learning, more specifically the utilisation of CANVA for Education media in learning.

## RESEARCH METHOD

**The method used in this writing is library research.** Library research is a series of studies related to library data collection

methods, or research whose research objects are explored through various library information (books, encyclopaedia, documents, and scientific journals (Farisi, 2010). This article is written using a qualitative descriptive method with a literature study. The literature method carried out in this study by collecting data, information contained in the literature. Data analysis was conducted by examining the concept of meaningful learning model in thematic learning (Azizah, 2020). The literature study writing method includes the following steps: (1) Finding and knowing the type of literature needed, (2) Reading the type of literature that has been determined, (3) Conducting an assessment, and (4) Presenting the results of the literature study. Researchers also read scientific works from previous related research, record the results of interpretation of reading materials, and compile literature reviews based on the results of analyses of previous relevant scientific works. Literature review does not only mean reading the literature, but rather an in-depth and critical evaluation of previous research on a topic. Literature Review is a critical and in depth evaluation of previous research (Shuttleworth 2009). After the sources are collected, the researcher then reviews them critically and analytically. After the review stage is complete, then the researcher writes the results of the review.

## DISCUSSION

### **Eco Pedagogy and Social Studies Learning**

The concept of Ecopedagogy is not a form of teaching technique or method, nor is it the best approach in environmental education. However, the concept of Ecopedagogy emerges as a reaction to the educational practices that have been taking place in schools. Education practices in schools today are based on a modernist paradigm that is oriented towards preparing students as a means of production to increase capital in the market economy system. Through this paradigm, students only become objects of the hegemony of major ideologies such as capitalism and neoliberalism. The students' awareness and understanding of environmental issues are referred to as ecological competence. The goal of this competence is to educate students to understand environmental issues and apply ways to

conserve and solve environmental problems that occur around them. Ecological aspects in the educational context must be mastered by students in the learning process so that ecological competence can be achieved (Muhaimin, 2015).

Ecopedagogy is a movement of thought as part of critical pedagogy in education. There are several educational figures such as Jurgen Habermas and Paulo Freire who criticise the implementation of modern education that departs from the positivistic tradition that only makes humans a medium of production to increase power in various fields so that it affects the increasing exploitation of natural resources. According to Grigorove and Fleuri (2012) Ecopedagogy is a movement that departs from real life problems and is based on a life perspective (Supriatna, 2017). The movement is a reaction to the modern paradigm that places humans as rulers of the earth who have power over the planet. According to Freire (1972), educational practices that depart from the positivistic philosophy of modernism products have made students not only uprooted from their cultural roots but also from the environment in which they live. Modern education has distanced learners from their homeland and socio-cultural environment.

Historically, ecopedagogy was originally a pedagogy to support sustainable development and in education is also known as education for sustainable development. In some European countries, the ecopedagogy movement is carried out in the form of practical actions in school learning. Ecopedagogy can be implemented through social studies subjects that are packaged in cooperative learning in the form of games which contain elements of cooperation as well as competition which is different from the concept and competition of the capitalism model.

In addition, according to Supriatna (2017) in the context of Ecopedagogy, the curriculum in social studies learning must be developed and adapted to the situation and conditions of the local environment, school culture and surrounding culture, the background of students and raise environmental issues that develop in the local area.

Ecopedagogy as critical pedagogy has a place in the curriculum as an act of praxis. Social studies learning that seeks to build

learners' ecological intelligence should be directed to critical thinking that is built and departed from local problems and issues (Supriatna, 2007).

The concept of sustainable and visionary view of the future can be built through social studies learning that is transformative, i.e. learning that can change from learning only concerned with their own interests into self-interest with the environment. In learning social studies, teachers can include richer sources in addition to textbooks, namely social studies learning resources should be developed from the school environment, living environment, social experiences of students and electronic media (Sapriya, 2009).

For example, in cultural materials, teachers can raise issues about local culture that includes regional traditions or customs. In urban school environments, teachers can raise the culture of environmentally friendly transport such as cycling, using public transport or public transport modes. In rural areas, teachers can raise the issue of local wisdom that has been believed and applied in everyday life, such as local wisdom in protecting springs, forests and various plants, etc. that appear in proverbs, principles of life, advice, myths, legends, tales and traditional ceremonies. Various social studies learning strategies can be chosen by teachers with an Ecopedagogy approach, the strategy must be able to connect the deconstructed classroom with the environment outside the classroom, starting from the immediate environment to the wider environment. Thus, learning activities that connect the classroom with the outside of the classroom are part of Ecopedagogy to support the concept of sustainability from the environment closest to the real world of students.

### **The Urgency of Digital Pedagogy in Education**

Education in the digital era emphasises a broader pattern of interaction, especially regarding the use of information and communication technology in the learning process. The involvement of technology can be applied by using video tutorials, internet games, online quizzes, and various forms of interaction to improve

the quality of learning that can be understood by students. Therefore, strategic steps are needed as an effort to prepare a learning process that is in accordance with the times in the digital era. The first step is to elaborate everything needed for the teaching and learning process by redefining learning theory to build a new framework in pedagogical aspects to be able to answer the existing challenges.

According to Toktarova & Semenova (2020), digital pedagogy includes four aspects: 1) environment, which is the application of content and communication components in a digital education environment, 2) competency-based, which is the formation and development of digital competencies in teachers to be able to create interactive and meaningful learning for students, 3) content-based, which is the creation of educational products in digital form that directly provides new opportunities to educational subjects in the process of learning and cognitive communication, and 4) technology, which is a variety of efforts correlated with technology such as forms (synchronous, asynchronous), methods (active, interactive, and so on). In the field of technology, several tools are needed such as (computers, laptops, smartphones).

Meanwhile, according to Vaataja & Ruokamo (2021), the dimensions of digital pedagogy consist of three things: (1) pedagogical orientation, which is the teacher's perception of the orientation of the learning process, how individuals learn, and how they should be taught and guided, (2) pedagogical practice, which is related to the teaching methods that will be used by teachers in the classroom, and (3) pedagogical competence, which is the skills needed by a teacher in integrating digital technology into the learning process. These dimensions must be fulfilled if a teacher wants to conduct learning process in the classroom.

Laurillard explained that the collaboration between pedagogy and technology utilisation is a means to develop conventional pedagogy with the aim of being able to increase student involvement and activeness in the learning process. For example, through digital learning resources, students will be able to be more independent in finding the learning resources they need. If previously they only used printed books, then by using digital learning resources they can be more extensive in exploring the learning resources needed. By doing so, students can actively contribute to the learning process and attach links from digital sources to add rich references (Laurillard, 2009).

Thus, digital pedagogy becomes a 'method of empowerment' (Waddell & Clariza, 2018), where learners are stimulated to explore the world and themselves. After all, when learning has the conditions to overcome time and space in the classroom, we are already talking about (a place for) decentralising educational authority (Boczar & Jordan, 2022). For the same reason, the openness offered by digital education contributes greatly to citizen participation and engagement (through 'critical digital literacy' - Polizzi, 2021), in a world where the social world is increasingly intertwined with the digital world, influencing the imagination of citizens' lives, in a dialectic of utopianism-dystopianism that education can shape.

### **Implementation of Eco Digital Pedagogy in Social Studies Learning**

Digital Pedagogy brings a new paradigm to the process of teaching and learning, as well as what is taught. New forms of managing learning will have a positive impact on the use of learning media so as to produce a more effective and efficient learning process in understanding, knowing, analysing and creating a product. Digital technology provides facilities in the form of documentation processes, identification of problems and possible solutions, as well as approaches to real life,

communication between those involved, structuring the process of deconstruction and reconstruction. One of the digital technologies that can be utilised in the learning process is Canva. Canva is a design platform that allows you to create a wide range of interactive media materials, including infographics, posters, presentations, worksheets, comic strips, newsletters, book reports, cards, and so on. Canva is one of the solutions that encourage student creativity through mastering IT skills and expressing ideas effectively (Christiana & Anwar, 2021; Andriyanto et al., 2021). Canva is considered a creative and innovative tool that enhances the teaching-learning process and encourages the development of students' collaborative abilities. Canva is a tool that allows users to create and publish content across multiple platforms. It is compatible with smart phones and desktop computers.

In the learning process, teachers and students can use the Canva for Education platform. Canva for Education is a Canva tool created specifically for teachers, students and schools that provides all of Canva's pro features for free, including many premium templates, royalty-free images, premium text icons and fonts, background erasers and much more. Canva for Education offers a range of exciting features that make it a design platform that can be used in learning. This way, teachers and students can start creating creative and innovative designs without having to pay extra. This is because this platform is indeed provided free of charge to be accessed in the learning process by using a belajar.id account that has been provided by the Indonesian government.

There are various features of Canva that can be utilized in the learning process. These features are as follows (Med Kharbach, 2024).

**1. Showcase learning**

Students can create posters, infographics, or animated presentations to demonstrate the things they learned in a lesson or a curriculum unit.

**2. Storytelling projects**

Students can use Canva for Education in digital storytelling projects. There are various storyboard templates students can start with. They can edit the boards, add images, text, voiceover, and even record and add videos to tell their stories.

**3. Educational comic strips**

Canva hosts numerous professionally designed comic strips that are fully customizable. Use these materials to design your own comic strips to share with students. You can, for instance, create strips to generate discussions around a particular topic, or use them as prompts for digital storytelling projects and more.

**4. Timelines**

Students can use Canva templates to create timelines chronicling the chronological developments of events, document major historical happenings, outline procedural stages of a particular phenomenon, document the life of a popular or historical figure, and more.

**5. Visual analytical reports**

Teachers and students can use Canva to create analytic reports for , for instance, books, short stories, YouTube videos, movies, etc. The key here is for students to visualize their thinking processes as they engage with visual creation.

**6. Animated presentations**

Canva is a great free alternative to Google Slides and PowerPoint. Students can use it to create visually attractive presentations embedding all sorts of interactive media including animated stickers, flashy fonts, GIFs, videos and more.

**7. Create and share assignments**

Teachers can use Canva for Education to create a wide variety of individual and collaborative assignments and share them with students directly from Canva interface or using an integrated learning management system (see how to create assignment below).

**8. Video projects**

Students can use video templates in Canva for Education in a wide variety of educational activities including to create 'about me' video projects, short educational documentaries, and more.

**9. Create collaborative design work**

Group projects templates in Canva for Education are a great tool to enhance students teamwork and boost classroom community. Students can work on the same design template (e.g., a poster, a whiteboard, an infographic, a presentation, etc) in real time. They can drag and drop elements, insert images, add text and more.

As a teacher, you get to monitor the whole creative process and view students thinking process as it takes place. You can even intervene and send individualized feedback to specific students.

With these features, educators and students can utilize this platform to enhance awareness of environmental management. First, educators can employ this tool in the pre-learning stage, during the instructional phase, and for final assessments. For instance, in the initial stage, educators can present videos or images to initiate learning engagement. They may create educational video animations illustrating environmental degradation caused by mining activities. Additionally, educators can leverage PowerPoint templates provided by Canva to enhance student engagement. This approach is applicable throughout the instructional process and assignment phases.

Furthermore, Canva facilitates students' access to pertinent information and learning resources essential for their educational journey. Numerous studies indicate that the use of Canva positively impacts learning outcomes. Returning to the ecological theme, Canva can be utilized to produce digital posters and animated videos related to social studies topics, focusing on environmental conservation initiatives, waste management, and addressing criminal activities and violence.

## CONCLUSION

Implementing an eco-digital pedagogy approach fosters an environmental stewardship mindset through the use of digital tools. This strategy can be integrated into social studies curricula using the Canva application, which offers various features to advocate for environmental preservation. This approach aligns with the objectives of social studies education, aimed at preparing individuals to become responsible citizens and effective problem solvers in addressing environmental challenges. The integration of creativity and environmental awareness will flourish alongside pedagogical practices that embrace technological advancements.

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