

Improving Digital Literacy of Ecological Citizenship in an Effort to Educate Industrial Areas Towards a Resilient Community in Cirebon Regency, West Java Province

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Abstract

The rapid development of industrial areas in Cirebon Regency demands an increase in digital literacy of ecological citizenship as an effort to support the formation of a resilient society. The background of this problem is rooted in the urgent need to educate the community to be able to adapt to environmental changes that occur due to industrialization, as well as the importance of active citizen involvement in maintaining ecological sustainability through the use of digital technology. This research uses a qualitative method, with a case study approach in several villages in Cirebon Regency that are affected by the development of industrial areas. Data were collected through in-depth interviews, participatory observation, and analysis of related documents. This research examines community perceptions of digital literacy and ecological citizenship, as well as the barriers faced in implementing digital-based education. An interesting new finding from this research is that there is a positive correlation between improved ecological citizenship digital literacy and community environmental awareness, which directly contributes to community resilience. Communities with good digital literacy show more ability to access information, participate in public discussions and advocate for pro-environmental policy changes. In addition, the study also found that limited access to technology in some areas is a major challenge, which requires policy interventions to expand digital infrastructure. The author concludes that increasing digital literacy of ecological citizenship is a strategic step to build a society that not only understands environmental impacts, but is also able to adapt and act proactively in maintaining the balance of ecosystems in the midst of industrialization.

Keywords: Digital Literacy, Ecological Citizenship, Industrialized Areas, Community Resilience.

Introduction

Ecological citizenship is a concept that focuses on the integration of an individual's responsibility to the environment with their rights and obligations as a citizen. In this context, individuals are not only expected to understand and appreciate the environment but also to play an active role in maintaining the sustainability of the ecosystem. In ecological theory, the term anthropocene is known, which is a concept regarding the interaction of the environment and society (Abdoellah, 2020). Citizenship theories from various scholars, such as Marshall (1964) and Turner (1993),

emphasize the rights and obligations of citizens, while ecological citizenship theories from Dobson (2003) and MacGregor (2008) add the dimension of ecosystem dependency. Ecological literacy is a key foundation, where individuals must understand ecological systems and the relationship between humans and the environment. For example, ecological literacy can be applied through integrative education, as mentioned in the journal "Strategies for Ecological Citizenship Formation" by Mariyani (2017): "Ecological citizenship formation through schooling starts from ecological literate teachers, ecoliteracy-based school civics and projects outside the

classroom". Thus, students can understand the impact of their actions on the environment and play an active role in environmental issues.

The implementation of ecological citizenship also involves community participation in preserving the environment. Ecological citizenship recognizes environmental rights with politically bounded skills. The five overlapping components of the ecological citizenship approach include Ecological Literacy, Civics Literacy, Values Awareness, Self-efficacy, and Practical Wisdom. For example, community participation in environmental management can be seen in research that shows that some people have participated in environmental management activities, although there are still obstacles such as floods and littering. Thus, ecological citizenship is not only a theory but also a practice that can be applied in everyday life to maintain environmental sustainability.

More than people's habits in protecting the environment, this research is far at a different level, namely at the level of regional industrialization. There are three variants of resilience in ecological research, namely ecological resilience, social ecological resilience, and social resilience (Abdoellah, 2020). In this case, the people of East Cirebon must be able to maintain social ecological resilience, the combination of the two is important for the sustainability of the east Cirebon area to remain livable.

Literature Review

Crisis is an inherent part of capitalism itself. Crisis is something that is inevitable in capitalism. The source of the crisis begins with over-accumulation, which is a situation where there is a capital surplus (in the form of an abundance of commodities in the market that cannot be sold without loss, idle production capacity and/or a surplus of money that does not have productive and profitable investment channels) and a surplus of labor (increasing unemployment). This over-accumulation causes the level of profit achieved by capitalists to decrease or even stop, causing them to exit the market. As a result, the rotation of the economic wheel becomes stagnant and capitalism is dragged into crisis. In response to this, the way to overcome it lies

in capital. If this is to be avoided, then ways must be found to absorb the capital surplus. One way that can be done by capitalists is geographical expansion and spatial reorganization to be able to reinvest so that capital accumulation can continue. In this position, Harvey stated that urbanization or urban development has played a very active role in absorbing the capitalist production surplus. This is what is called the concept of spatial fix or more precisely spatio-temporal fix. . This is where the important role of the urbanization process in capitalism lies.

Method

This study uses a qualitative method, with a case study approach in several villages in Cirebon Regency that are affected by the development of industrial areas. Data were collected through in-depth interviews, participant observation, and analysis of related documents. This study examines public perceptions of digital literacy and ecological citizenship, as well as the obstacles faced in implementing digital-based education.

Result and Discussion

Increasing digital literacy of ecological citizenship in Cirebon Regency, West Java Province, is a strategic step in efforts to educate the community in industrial areas. With the rapid development of information and communication technology, digital literacy is key to empowering citizens in facing complex environmental and social challenges. Digital literacy does not only include technical skills in using digital devices, but also an understanding of ethics and responsibility in interacting in cyberspace. Therefore, programs that prioritize digital education must be designed to create ecological awareness among the community. In addition, digital literacy can also strengthen community participation in decision-making related to environmental policies. Thus, the community is not only a consumer of information but also a producer of ideas and solutions to the ecological problems they face.

Technology-Based education, integrating citizenship education with digital literacy in the school curriculum. This can be

done through training for teachers and students on the use of technology to explore environmental issues. Use of Social Media, encouraging the community to use social media platforms as a means to disseminate information about sustainability and environmentally friendly practices. This includes following accounts that focus on ecological issues and participating in online campaigns. Digital Community, building an online community that focuses on sustainability and the environment. This community can be a place for individuals to share knowledge, experiences, and solutions related to environmental issues in Cirebon Regency.

Digital Applications and Tools, developing applications that help people monitor the environmental impact of their daily activities. For example, applications that track individual carbon footprints or provide tips on waste reduction. Field Activities, holding field activities that combine theoretical learning with direct practice in nature. This can include environmental cleanup or tree planting programs that involve active community participation. In this context, local governments together with educational institutions and civil society organizations need to collaborate to organize training and workshops that aim to improve digital skills while instilling ecological citizenship values. For example, through initiatives such as "Kampoeng Recycle," in Jember East Jawa, people can learn how to utilize technology for waste management and environmental conservation (Jannah, 2018). This program not only improves technical knowledge but also builds a community that cares about environmental issues. In addition, the expansion of digital infrastructure, such as providing internet access in remote areas and developing digital public spaces, will support this effort. With better access, people can engage in online discussions on environmental issues and share best practices in natural resource management.

Digital literacy campaign activities through social media are also important to raise awareness of the importance of ecological citizenship in the digital era. Thus, increasing digital literacy of ecological citizenship in Cirebon Regency will not only create a society that is more skilled in using

technology, but also build social and environmental resilience. A society that is knowledgeable about ecological issues and has good digital skills will be better prepared to face industry challenges and contribute to sustainable development. Through this approach, Cirebon Regency can be an example for other regions in creating a society that is resilient and responsive to changes in the times.

Conclusion

In conclusion, increasing digital literacy of ecological citizenship is an important step in building a resilient society in Cirebon Regency. Through the right educational strategy and wise use of technology, the community can become an active agent of change in preserving the environment, especially with a digitally literate community regarding ecological citizenship, the community can anticipate capitalism that occurs in their area, and make their area more habitable in the long term.

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