JURNAL PENDIDIKAN PROGRESIF

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Focus and Scope

Jurnal Pendidikan Progresif is an academic journal that published all the studies in the areas of education, learning, teaching, curriculum development, learning environments, teacher education, educational technology, educational developments from various types of research such as surveys, research & development, experimental research, classroom action research, etc.

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College Student Perception towards Sustainable Environment: Learning Opportunities after Covid-19

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Abstract: College Student Perception of the Sustainable Environment: Learning Opportunities after Covid-19. Objective: This study aims to determine students' perception as prospective educators at the basic education level on environmental issues and the orientation of sustainable environmental education in universities after the Covid-19 pandemic. **Methods:** This study uses a quantitative analysis approach with a survey method. The population in this study were students of the Department of Elementary School Teacher Education, amounting to 880 people. The number of samples taken was 249 from four generations spread from 2020, 2019, 2018, and 2017. Data collection using a questionnaire with an electronic google form format. The data analysis technique used descriptive statistics. **Finding:** The results showed the diversity of students' perceptions of environmental problems and the need for sustainable environmental learning practices. **Conclusion**: In conclusion, although it is still limited, students can already see the relationship between environmental issues with economic, social, and political dimensions. Critical environmental learning is needed to improve the quality of sustainable environmental education.

Keywords: environmental literacy, sustainable environment, college student perception.

Abstrak: Persepsi Mahasiswa tentang Lingkungan Berkelanjutan: Peluang Belajar Pasca Covid-19. Tujuan: Penelitian ini bertujuan untuk mengetahui persepsi mahasiswa sebagai calon pendidik di jenjang pendidikan dasar terhadap isu lingkungan dan orientasi pendidikan lingkungan berkelanjutan di perguruan tinggi pasca pandemi Covid-19. Metode: Penelitian ini menggunakan pendekatan analisis kuantitatif dengan metode survei. Populasi dalam penelitian ini adalah mahasiswa Jurusan Pendidikan Guru Sekolah Dasar yang berjumlah 880 orang. Jumlah sampel yang diambil sebanyak 249 dari empat generasi yang tersebar dari tahun 2020, 2019, 2018, dan 2017. Pengumpulan data menggunakan kuesioner dengan format elektronik google form. Teknik analisis data menggunakan statistik deskriptif. Temuan: Hasil penelitian menunjukkan adanya keragaman persepsi siswa terhadap masalah dan kompleksitas lingkungan serta perlunya praktik pembelajaran lingkungan yang berkelanjutan. Kesimpulan: Kesimpulannya, meskipun masih terbatas, mahasiswa sudah dapat melihat keterkaitan antara isu lingkungan dengan dimensi ekonomi, sosial, dan politik. Pembelajaran lingkungan kritis diperlukan untuk meningkatkan kualitas pendidikan lingkungan yang berkelanjutan.

Kata kunci: literasi lingkungan, lingkungan berkelanjutan, persepsi mahasiswa.

To cite this article:

■ INTRODUCTION

UNEP, together with UNESCO as a branch of the United Nations organization that focuses on the study of natural problems, environmental policy, education, science, and culture, has released a report on the declining quality of the natural environment in the world, including Indonesia (Austin et al. 2019). Education is one of the agendas promoted as the core of the Sustainable Development Goals (SDGs) strategy to encourage capacity building and educational processes in strengthening community capacities for sustainable action (Westphal, Franceschini, and Setti 2018). The program aims to make it applicable in schools integrated into standard education plans, curricula, and frameworks (Wals 2012). Educational practices can provide environmental and biodiversity conservation interventions (Harring, Jagers, and Matti 2017). Children interested and spending more time interacting with the environment will develop pro-environmental attitudes (Cheng and Monroe 2012).

On the other hand, the concept of sustainable development through Education Sustainable Development (EDS) presents a counterfactual. On the teaching of critical literacy (eco-pedagogical literacy), emphasize the need to reinvent environmental pedagogy to focus on the 'reading' of the development framework through the questions 'What is development for?', 'For whom is it?', and 'What's the motive behind it? (Misiaszek 2020). The current hegemonic practice of the sustainability-through-growth paradigm has increased inequality and pressure on natural resources, exacerbated biodiversity loss climate change, and resulted in social tensions (Kopnina 2020).

The idea of the need for awareness of the importance of protecting the natural environment requires the support of knowledge capacity, skills, and values, which can be facilitated through environmental literacy and eco-literacy, including at the university level. Environmental literacy itself develops skills that provide knowledge and encourage participants to make decisions about environmental issues. In comparison, the eco-literacy domain includes four components in the form of knowledge, skills, affective, and action (Karimzadegan 2015). The increasing social and ecological catastrophe caused by the unsustainable mix of economic exploitation of nature requires critical knowledge of the dialectical relationship between mainstream lifestyles and dominant social structures, thus requiring a much more basic form of eco-literacy. The primary trend on campuses is still to place environmental studies under the control of natural science departments, while humanities reviews and input from educators are almost non-existent (Francis 2011).

Meanwhile, the main goal of higher education still emphasizes producing capitalism for capital accumulation and economic growth, which confirms that higher education institutions are increasingly functioning unsustainably from an ecological perspective (Ruuska 2017). Higher education should be a force to bring good and encourage the creation of educational transformation and sustainable socio-ecological transformation; however, if higher education worsens the situation. With the ecological crisis then, there is little hope left. Therefore, through the COVID-19 pandemic, at least it provides an opportunity for all of us, especially in the field of education, to reflect on how to design and implement curriculum content and pedagogical practices that affect actions to save the environment and humanity.

The State University of Surabaya is one of the universities that received an eco campus award by the Surabaya City government from the Environment Agency (BLH) through the go green campus program in 2016. Unesa go-green

program is prioritized for the availability of green open land used as a venue for education, conservation, and recreation for residents and fostering initiatives in cultivating rare flora for learning purposes. However, it becomes a problem if the effort to achieve these is only based on obtaining award certificates without being accompanied by critical reflective awareness, which is feared to be trapped in practical actions. Moreover, if the approach used is only limited to technical solutions but ignores the socio-ecological dimension, it will be inadequate in solving the complexities of the environmental crisis. Therefore, it is necessary to know whether the practice has empowered students' potential, avoided the limitation of activity choices, reduced ecological problems, and was able to take advantage of the potential and environmental problems according to the location. If universities miss ecological problems, it becomes interesting to question how the concepts and practices of environmental education are being applied. This is relevant to the need to examine the goals and methods of educational institutions in the orientation of critical environmental education (Stevenson 2007).

The challenge ahead post-COVID is giving people the skills, experience, and motivation to build sustainable living systems. Therefore, as an evaluation material and a reference for the sustainability program, it is deemed necessary to reveal how the academic community at the state university of Surabaya (Unesa). Especially students in the department of elementary teacher education (PGSD) have adequate knowledge and understanding of a sustainable environment and the extent of the potential to measure the possibilities for development. Critical environmental education in the context of current and future needs. This paper is expected to be used as a reference for implementing sustainable environmental literacy in universities.

■ METHODS

This study used survey methods and questionnaire instruments to collect data. This research was conducted at the Department of Elementary School Teacher Education (PGSD) State University of Surabaya. The participants in this study were all 870 PGSD undergraduate students starting in 2020, 2019, 2018, and 2017. The sampling technique used the Solvin formula with a set margin of error of 5% or 0.05 with the calculation $n = N / (1 + (N \times e^2))$. The questionnaire was distributed online using Google forms. The questionnaire was filled out by 248 students, several males (11.9%) and female (88.1%). The sample has an age range between 18 and 22 years which is spread among first-year students (39.9%), second-year (34.3%), third-year (20.2%), and fourth-year (5.6%). The survey instrument was prepared by adopting a number of ecological worldviews developed by the US Riley Dunlap through the New Ecological Paradigm (NEP) scale with several adjustments to be validated by expert judgment. The instrument was developed with a total of 14 questions consisting of 11 closed questions with details of 8 questions using a Likert scale with three alternative answers, namely 1 (very important), 2 (somewhat important), 3 (not important); 3 questions with three alternative answers 1 (often), 2 (sometimes), 3 (never); and three open-ended questions. The Likert scale was used to collect student views on environmental issues with other dimensions and practical experiences of learning about the environment in higher education. This study uses quantitative descriptive analysis to explain the data collected as they are by being described in percentages.

■ RESULT AND DISCUSSIONS
Environmental Perception

Most respondents perceived that the activities required on campus are in the form of

campus breakthroughs in innovation, adaptation, and contribution to improving environmental quality (89,9%). Environmental issues/topics in the form of social injustice (88.%); The relevance of the ecological problems/topics in climate change is an essential issue for the earth's welfare (83.5%). Meanwhile, viewed from the dimensions of environmental knowledge, most of them are analyzing the impact of technology and human behavior and thinking deeply and critically about problems (93.2%). Dimensions of ecological skills in the form of the best use of existing energy (94.4%).

Conservation aspect of natural and cultural resources in the form of preservation (maintaining the sustainability of an area that has been used so that efforts are made to remain following its original state) of 92.4%. Concrete activities for conserving natural and cultural resources are in the form of efforts to maintain environmental cleanliness (97.2%). In more detail, the overall student perception of environmental learning practices on campus is presented in table 1. Meanwhile, based on open-ended questions, students' perceptions of how they should teach about environmental problems include explaining the relevance of issues in local to global contexts. Utilizing ecological problems, encouraging them to offer alternative issues, and learning can be supported by media and information (digital and information). non-digital) which contains materials and environmental issues.

Table 1. Environmental perception

Dimension	Statement	Very important		Rather important		Not important	
		f	%	f	%	f	%
Expected activities on campus	Presenting global and local issues	180	72.2	66	26.5	2	0.8
	Campus breakthroughs (innovation, adaptation, contribution to environmental quality improvement)	224	89.9	23	9.23		
	Sustainable campus practice	180	72.3	66	26.5		
	Environmental research	188	75.5	58	23.2		
	Environmental education and teaching	217	87.1	30	12		
	Pro-environment campus policy	218	87.5	27	10.8	3	1.2
	Environmental literacy socialization	218	87.5	28	11.2	2	0.8
Environmental issues/topics	Air and water pollution	197	79.1	50	20		
	Social injustice	220	88.3	24	9.6		
	Climate change	153	61.4	87	34.9	8	3.2
	Food crisis	205	82.3	41	16.5	2	0.8
	Extinction of species (plants and animals)	178	71.5	68	27.3		
	Gender discrimination racism	207	8.3	38	15.3	3	1.2
	Environmental damage	216	86.7	32	12.8		
Relevance of environmental issues/topics	Climate change is happening.	199	79.9	44	17.7	5	2
	Climate change is not an immediate threat.	74	29.7	117	47	57	22.9

	Human activities are not the leading cause of climate change.	81	32.5	92	36.9	75	30.1
	Climate change is an essential issue for human society.	197	79.1	45	18	6	2.4
	Climate change is an essential issue for the welfare of the earth.	208	83.5	31	12.4	9	3.6

Dimension	Statement	Very important		Rather important		Not important	
		f	%	f	%	f	%
Ecological knowledge	Ecological principles	192	77.1	54	21.7		
	Ability to think about existing problems	226	90.8	22	8.8		
	Analysis of the impact of technology and human behavior	232	93.2	16	6.4		
	Thinking about the long term impact	234	94	14	5.6		
	Think deeply and critically of the problem	232	93.2	16	6.4		
Ecological skills	Creating tools that society needs	199	80	47	18.9		
	Utilizing resources with ecological principles	224	90	24	9.6		
	Make the best use of existing energy	235	94.4	13	5.2		
Conservation of natural and cultural resources	Preservation (maintaining the sustainability of an area that has been used to strive to remain by its original state)	230	92.4	18	7.2		
	Restoration (changing the conservation structure of an area without using new materials)	147	59	100	40.1		
	Adaptation (a series of conservation activities whose primary purpose is to re-enable areas that have decreased vitality)	218	87.5	30	12		
	Revitalization (a process of improving social and economic aspects of a conservation area)	213	85.5	35	14.1		
Concrete activities for the conservation of natural and cultural	Maintaining green space	224	89.9	4	1.6		
	Caring for the growth of biodiversity (animals and plants)	235	94.4	13	5.2		
	Appeal to limit the use of single-use (plastic) goods	229	92	18	0.4		

resources	keep the environment clean	242	97.2	6	2,4		
	Utilizing unused materials to create green land	232	93.2	20	8.0		
	Penggunaan area kosong/lahan tidur	190	76.3	52	20.9	6	2.4
	Use of vacant/sleeping land	233	93.6	15	6.0		
	Planning activities and being responsible for the restoration of environmental conditions	234	94	14	5.6		

The survey results show that students still perceive that humans are not the cause of climate change. Therefore, this becomes a challenge, as well as the need to emphasize the understanding of eco-ethics regarding the differences in anthropocentric, ecocentric, and biocentric views. In addition, pre-disaster efforts in environmental preservation and rescue are still perceived as limited through maintaining cleanliness. This is undoubtedly a challenge to present a holistic view of the relationship between environmental issues with social, political, and legal dimensions to support the practice of reflective thinking and critical action in responding to ecological crises.

Several research results show that environmental education currently still emphasizes the habituation of students to act in an orderly manner, such as orderly disposing of garbage, not damaging plants, not hurting or killing animals, and implementing reuse, reduction, and recycling (Roswita 2020); (Kamil et al. 2020); (Nurwidodo et al. 2020). The government's disaster management efforts are still focused on the emergency response, rehabilitation, and reconstruction stages, while pre-disaster steps are still limited. Educational institutions, including universities, have a strategic role and position in strengthening sustainable education through environmental literacy. Creating a learning environment relevant to a changing world and optimal resource management is necessary for responding to today's challenges.

In the context of pro-environment activities at the elementary school level in Surabaya, the practice of making hydroponics, making compost, and other activities in protecting and caring for the environment is quite familiar. Among the campus sustainability efforts that have been developed have been in the form of special programs aimed at individual problems such as recycling and energy efficiency, usually on campus with a focus on the built environment (Posner and Stuart 2013). However, this activity in the context of and the need for critical environmental education is, of course, not enough, but critically questions the practice of environmental injustice and environmental crime at various levels and scales. The development of ecological literacy, including in universities, is a movement to integrate social-emotional intelligence to create educational, social, and environmental welfare by reducing ecological damage and preserving nature (Goleman, Barlow, and Bennett 2010). It is hoped that this effort can encourage the care and responsibility of school and campus residents towards the environment. The Center of Ecoliteracy in the United States has developed four core environmental literacy competencies: knowledge, attitude skills, and human relations with nature. Knowledge competency indicators are in the form of understanding the basic principles of ecology and thinking based on the context of the existing problems. In addition, he is skilled at analyzing the impact of technology

and human behavior, thinking about the long-term effects that will be obtained, and thinking deeply and critically about a problem. Environmental literacy can facilitate the involvement of high-level thinking about cause and effect and connect existing issues with more complex network systems (Wallace 2019). This condition certainly poses a further challenge to the need for critical education development in environmental issues through eco-pedagogy at various levels of education, from primary secondary to tertiary education. Ecopedagogy includes an ecological and educational worldview, developing into two broad movements, namely philosophical eco-pedagogy and critical eco-pedagogy (Hung 2021). The first, referred to as ecosophy, focuses on the metaphysical investigation of human-nature relations and related problems in education. For the latter, environmental justice, its mission is to criticize the injustice and oppression involved in ecological issues.

This effort is a form of correction to the government's form of disaster management so far, which is still focused on the emergency response, rehabilitation, and reconstruction stages, as well as improving pre-disaster efforts through the introduction of the complexities of the environmental crisis. Humanity stands at a crossroads; we have deceived ourselves into thinking that human progress and civilization depend on the transcendent domination of nature (Quay et al. 2020). Pre-disaster management efforts can be taken at the tertiary level, including prospective elementary school teachers who will become educators for students in elementary schools. Educational institutions, including universities, have a strategic role and position in strengthening sustainable education through environmental literacy. Higher education creates and generates knowledge, innovates, adapts, and contributes to solving social and environmental challenges (Stephens et al. 2008). Universities bear a great responsibility to raise awareness,

knowledge, technology, and tools to create a sustainable future through education, research, policy development, information dissemination (Nawi and Choy 2020). Many higher education institutions have developed a variety of initiatives working to embed sustainability into their organizations through education, research, community service, operations, and governance (Lozano et al. 2015).

Educational institutions, including universities, have a strategic role and position in strengthening sustainable education through environmental literacy. Post-covid-19, educational institutions, higher education, and schools need to move towards mixed learning. The concept of "hybrid" learning is in school and online, not just to respond to the Coronavirus but to accommodate long-term needs for the benefit of students and the planet (Quay et al. 2020). Creating a learning environment relevant to a changing world and optimal resource management is necessary for responding to today's challenges. The ecological crisis is a challenge for our pedagogical practice so far. The use of technology, information, and communication media must be reconceptualized to the environment to raise awareness and communicate solutions. The skills needed to answer this challenge include self-reflection and critical analysis, including media literacy, primarily through eco-media. This literacy aims to reframe media as ecological media to facilitate students in calculating environmental impacts, analyzing, deconstructing media texts, detecting and critically involving media bias (López 2020). One of the main challenges is creating a learning environment that consists of learners' sensitivity (Kalantzis and Cope 2010).

Environmental Learning Practice

Most of the respondents rated environmental issues as very important (98.8%), and only (1.2%) considered them rather

important. At the same time, most respondents believe the scale of local environmental problems is significant (92.4%). Most respondents rated the relationship between ecological aspects as placing local ecological issues as very important (92%). More detailed characteristics of environmental learning practices are presented in table 2. Based on open-ended questions, students' perceptions of what knowledge and experiences they want to gain or experience regarding sustainable practice communities include being environmental activists who can contribute to better change. Some of the efforts that can be made include empowering the surrounding environment, understanding the complexities of ecological problems, various conservation practices such as recycling waste, studying the linkages between environmental issues, poverty, and social injustice.

Table 2. Environmental learning practice

Dimension	Statement	Very important		Rather important		Not important	
		f	%	f	%	f	%
Environmental issues	How important are environmental issues regarding awareness of human relations with the environment, including other living things, air, water, etc.?	246	98.8	3	1.2		
	Teaching about environmental issues in lectures on campus	238	95.6	11	4.4		
Environmental problem scale	Local environmental problems	230	92.4	18	7.2		
	National environmental problems	224	90	24	9.6		
	Regional environmental issues	217	87.1	30	12		
	International/global environmental issues	195	78.3	52	21		
Relationship between environmental aspects	Relationship between ecological and economic issues (utilization of natural resources)	237	92	12	4,.		
	Relationship between environmental and social issues (discrimination, social injustice, etc.)	219	87.9	26	10.4	4	1.6
	Relationship between environmental and social and economic issues	219	87.9	28	11.2		

The survey results show the perception of students who want a more significant curiosity about various dimensions of the environmental crisis in a more in-depth and comprehensive manner. This, in turn, is a challenge and the need for curriculum orientation and learning in universities on how to teach critical and sustainable environmental education practices.

Several strategic efforts can be integrated into sustainable ecological education through eco-literacy, eco-pedagogy, and eco-media.

Most of the respondents considered the importance of campus making several breakthroughs in adapting to environmental changes as an excellent opportunity to develop student competencies, including ecological

literacy skills. Universities are research and educational institutions that play an essential role in educating future leaders to emphasize and ensure the future sustainability of society (Ryan et al. 2010). Likewise, with students who will later become educators/teachers at the basic education level/elementary education unit. Philosophically, the primary education unit emphasizes the development of personality, character, and character, and the rest is knowledge and skills. Therefore, introducing environmental issues and awareness to prospective teachers is very strategic for creating a generation that cares about a sustainable community. After the COVID-19 pandemic, we are expected to have a bolder involvement in changing cultural awareness and patterns, including the tendency of destructive behavior and crimes against the environment. Furthermore, sustainable environmental education can help create resilience—the ability and capacity to adapt. And supports communicative rational action.

However, various obstacles and barriers to sustainable environmental practices are still encountered at the higher education level. Lack of awareness about sustainability in the campus community is one of the problems in sustainable campuses in Malaysia (Hooi, Hassan, and Mat 2012). Likewise, based on this research, there are still students who perceive the issue of climate change, and the assumption that humans are not the cause of the emergence of climate change is still a challenge to put more emphasis on the practice of thinking and reflective action on the issue. Many factors are the cause, including because they have not made the problem something that is present in everyday life. Lessons from the COVID-19 pandemic drive how we need to restart, rebuild, connect, reorganize and help us prepare for environmental crises. Based on students' perceptions, most of them

understand the scale of environmental problems ranging from local, national, regional to global. Likewise, the dimensions of the relationship between the environment and the economic and social dimensions, where students assess that the environment and the economy have a solid relationship. This assumption can be adequate because, generally, environmental damage is triggered by economic activities and interests, where when met, environmental interests naturally lose to economic interests.

One of the characteristics of modern society is the high consumption of industrial products derived from natural resource-based materials accompanied by the exploitation of natural resources (Wallace 2019). Departing from this condition, efforts to encourage critical environmental literacy through eco-pedagogy become one of the strategic efforts that can be taken in the context of pre-disaster efforts. Ecopedagogy aims to promote a critical understanding of human/nature relationships based on reactions to experiences (Zocher and Hougham 2020). Ecopedagogical learning is closely related to the transformation process in education socially and ecologically. The transformation has become a significant research topic continuity. Some reasons that direct this research are that the socio-ecological transformation in environmental management, including in schools, requires critical reflection related to social practices and knowledge for environmental management. If it is not discussed critically, it will tend to fall back on conventional thinking that only relies on scientific management and knowledge transfer. Socio-ecological transformation is related to the dynamics of the interaction of social and ecological systems in terms of vulnerability, resilience, and sustainability (Brand, Görg, and Wissen 2020). Meanwhile, the transformation of education that is oriented towards humanist, dialogical, critical, and

ecological awareness needs to be carried out considering the massive shackles that result in the deterioration of human life both from its personal, social, and environmental spatial dimensions

Social ecology takes the position that most ecological problems arise from social issues. Therefore, ecological issues cannot be clearly understood, let alone solved, without explicitly addressing the issues that exist in society. The current environmental situation is seen as a product of capitalism. The socio-ecological transformation approach focuses on socio-ecological systems, often taking a place-based research perspective (Berkes and Jolly 2002). For most people, COVID-19 containment means rebuilding community support by reaching out, finding new ways to engage with others, and spending time getting to know places closer to home. In addition, as an opportunity to adapt to the OEE community and facilitate opportunities for universities to develop online networks, work with various parties to strengthen their local communities affected by the environmental crisis. This approach understands transformation as "change that fundamentally alters human and environmental interactions and feedback" (Walker et al. 2004). The Covid-19 incident invites all elements, including educational institutions, to rethink issues of global interconnectivity and interdependence as well as the fundamental goals of education and pedagogical models that are more suited to the ever-present possibilities of insecurity, risk, and change (Peters et al. 2020). Therefore, through a positive perspective on efforts to save the environment and the need for critical environmental education practices (eco-pedagogy), it is hoped that it will facilitate students as prospective teachers to respond and understand the ecological crisis well.

Ecopedagogical literacy is an attempt to rediscover "Freirean pedagogy" rooted in transformative teaching. Educators dialectically propose the relationship between political and socio-environmental issues through local and global lenses (Misiaszek 2020). The crises of climate, economics, politics, evolving culture, and unfair power relations in all aspects of life prepare for and trigger a pandemic faster and further (Peters et al. 2020). Without an in-depth and broad reading of development and sustainability and their relationship to the effects of development on local communities and ecological systems, such development actions would be unsustainable and contradict the definition of development. All sustainable development issues are centered around inter-and intragenerational justice, which rests on the pillars of three different but interrelated dimensions, namely the environment, economy, and society (Mensah 2019). The COVID-19 pandemic offers an opportunity to re-evaluate self-reflection and the importance of Outdoor Environmental Education (OEE) on human mastery of nature. Learning experiences that pay attention to awareness of space and time, as well as natural and affective experiences, can encourage students' understanding of the relationship between culture and nature (Dunkley 2018). The COVID-19 pandemic is not to think about the war against the virus but rather as a reflective material that humans are part of nature and the earth as a source of life and not a resource and not as a testing ground. Nature is not about regulation, but nature is us, where one change will affect everything else in both intentional and unintentional ways.

The research implication is expected to be an opportunity as well as a challenge for educational institutions, both higher education, and schools, to critically review and design curriculum and learning experiences in the environment. In meeting the practical interests of post-COVID learning in the future, the blended learning approach can be used as alternative

learning that can accommodate the need for "outdoor education" with online learning in a network. The positive perception of students in placing the environmental crisis as a strategic issue is a good initial capital in developing critical environmental literacy. This research is still limited to prospective elementary school teacher students at one university, so it can be expanded to many other higher education areas with various scientific fields. In addition, future research can investigate in-depth the sources of student expectations about the behavioral orientation needed in overcoming and preventing increasingly complex environmental crises.

■ **CONCLUSIONS**

Students' perceptions generally show a critical choice of environmental issues/topics and environmental learning practices towards sustainable ecological education. Most students consider environmental issues vital, presenting global and local scale environmental issues/crises in lecture activities. Students can see the relationship between environmental issues with economic, social, and political dimensions, the need for campus innovation in improving the quality of a sustainable environment, and linking environmental issues with social justice. Based on the findings of this study, it is suggested that prospective teacher education providers can give considerable attention to the development of environmental literacy skills, including eco-pedagogy, to support the creation of a sustainable and equitable environment.

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