

# **Critical Environmental Education: The Urgency of Critical Consciousnesses, Intersubjective Communication, and Deliberative Democracy of Environmental Citizenship**

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## **Abstract**

*This article reviews critical pedagogy challenges, opportunities, and limitations in paying attention to environmental issues and crises. Pre-disaster efforts in preventing and overcoming environmental damage and crime can be pursued through environmental education at all levels, from primary education to higher education. There is a need to revisit the foundation and orientation of environmental education with a willingness to critically read the development framework, which is often full of paradoxes and ambivalence. Educators can facilitate and limit and inhibit by neutralizing the socio-political dimension of environmental issues. Current practice has invited to care for the environment but has not fostered critical environmental citizenship through strengthening intersubjective communication and deliberative democracy. Through critical pedagogy, students' voices as a language of opportunity, hope, and possibility can be built on trust, dialogue, and empowerment towards a better socio-ecological transformation. The involvement of students as*

*active and critical environmental citizens needs to be supported through an open and democratic educational atmosphere.*

**Keywords:** *critical pedagogy, intersubjective communication, deliberative democracy, environmental citizenship*

The burden of the environmental crisis shows increasingly severe and complex conditions that occur on various scales ranging from local to global. Perspectives and narratives of growth and development, positivism-instrumentalist scientism, and technocratic approaches are still dominant in environmental action in educational spaces. Several concerns on these issues have been widely initiated and agreed upon through international agendas ranging from the "Earth Summit in Rio de Janeiro" in 1992, "World Summit on Sustainable Development, in Johannesburg, South Africa in 2002, and the 2015 Sustainable Development Goals (SDGs) agenda to the conference climate change in Madrid in early December 2019, but the results appear to be far from expectations. There is still a contradiction between environmental conservation and growth drive (Mattila, 2020); environmental injustice practices experienced by poor and least developed countries (Nesmith *et al.*, 2021); and systemic impact on the global biosphere (Hausknost, 2020). Thus, the resulting socio-ecological crisis will likely continue to recur as long as the narrative of commodity growth as for sustainable development remains dominant. The ecological rationale tends to be defeated by the economic rationale, which is built on a solid relationship between capital accumulation, production expansion, and economic growth.

The conditions that occur are inseparable from the underlying philosophical tension between anthropocentric and ecocentric related to environmental ethics. Even about contemporary environmental issues, (Balundè *et al.*, 2020) have identified three broad views, namely anthropocentrism, ecocentrism, and technocentrism. This debate often has implications for selecting different focuses and practices, often overlapping and even contradicting environmental management. This tendency, in turn, gives birth to a conflict between ecological rationale, which is oriented towards preserving and saving the environment (preservation), and economic rationale, which believes the world and all creatures in it are made for humans and places nature as commodification and preserves nature to the extent of fulfilling self-interest or in a soft language it is said as management to manage nature (conservation).

Responding to environmental problems is generally carried out through post-disaster and pre-disaster approaches. Post-disaster efforts are more like emergency response, rehabilitation, and reconstruction, and these efforts do not escape criticism because it emphasizes technocratic solutions. However, they ignore the root causes of environmental degradation. In the risk society, technoscientific developments are contradictory (Beck, 1992). Environmental policies often fail because they do not emphasize justice and 'democracy for nature' (Biermann, 2021). Those who are unfairly harmed by the risks of climate change cannot complain to anyone and cannot demand specific actions as their and expect to be heard. Likewise, pre-disaster efforts, including those carried out in educational institutions through Environmental Education (EE) or in Indonesia known as Environmental Education (PLH), including various other forms such as disaster education, disaster mitigation, and other forms that tend to be designed uniformly, emphasizing the approach to disaster management. This is embraced by the criticism of Preston (2022), who considers disaster education in its typology to be more concerned with and focused on appearance

or function that is instructive, didactic, and follows the banking education model but ignores the critical context of capitalist content, especially in terms of growth and all forms of commodities. The old anthropocentric and ecocentric debates, including technocentric, have implications for the acculturation process of education and the environment, which often experience competition from discourses and environmental perspectives used in practice. There is live disagreement about the goals of environmental education, which can lead to conflicting goals and outcomes (Schild, 2016).

EE practice in a number of countries is faced with different orientations, outcomes, and the underlying paradigm. Many studies show that there are at least several approaches used, including Education for Sustainable Development (ESD), Education for Sustainability (EfS), and Education for Environmental Sustainability (Efes). In its history, the design of ESD education, which is thick with development narratives, has faced criticism for overemphasizing the quantitative aspect and its dependence on technological progress (Wijesooriya and Brambilla, 2021); and the strong hegemony of the sustainability paradigm through growth (Kopnina, 2020). The implication is that students learn about environmental impacts but do not emphasize understanding the broader impact of the environmental crisis that considers issues of justice (Howard-Jones *et al.*, 2021); and learning experiences with learning reduced to technical or instrumental activities (Kohan, 2018). Likewise, with EfS, which for environmentalists is still often considered to be growing from ESD even though it has removed "development," the word sustainable still has a double term for "sustainable growth" rather than environmental sustainability or the environment being restored (Parker and Prabawa-Sear, 2019). Policymaking can produce and/or inhibit effects following the conception and mobilization of environmental education topics in education policy, where development discourse remains dominant (Mejía-Cáceres *et al.*, 2021). Therefore, it is

necessary to understand how educational policies can be translated into contextual teaching to foster students' voices in utilizing their potential as collective agents with a moral drive for responsibility (Farrell and Sugrue, 2021).

While EE practices through government programs in Indonesia are explicitly aimed at sustainability development for present and future generations, the environmental discourse chosen and used adapts the development discourse close to the ESD approach, which has previously been criticized for placing too much emphasis on quantitative aspects that are positivism-instrumentalist. The activities that students at school mainly carry out include recycling in the form of waste collection, sorting, cleaning, and processing materials used to produce new objects with new functions derived from plastic, glass, paper, batteries, and aluminum from school consumption. Other activities include water management for watering plants and energy efficiency, activities to save consumption of lighting, and ventilation, other activities in the form of maintaining classroom cleanliness and school sanitation, hygiene competitions, plant maintenance picket activities, vertical garden plant design, waste bank/composter (Kamil *et al.*, 2020); (Nurwidodo *et al.*, 2020). Relevant to this, (Washington, (2015) remind us that sustainability and sustainable development are by no means the same thing. The concept of sustainable development, known as the "triple P (People, Profit, Planet), shows that economic growth and industrial development, related to population growth and consumption and increasing demand for natural resources, are the root causes of environmental unsustainability. Meanwhile, continuing education aims to encourage students to be creative and responsible citizens of the world who critically reflect on the idea of sustainable development and the values that underlie them (Spanning, 2019). Therefore, the limitations of teacher-student interaction can be facilitated through dialogue so that they can explore problems from various perspectives

and learn to listen and consider the perspectives of others to critically examine their own beliefs and practices (Hæreid Marcussen, Weiss and Hansen Helskog, 2021).

Environmental education needs to focus on reading the development framework through the questions:

'What is development for?'

Who for?'

and What is the motive behind it? (Misiaszek, 2020).

Often educational discourse can dictate what may be done, who has the right to say it, and who makes judgments that are not appropriate and need to be marginalized or silenced (Fien, 2000). To deconstruct hierarchies in student-teacher interactions for the development of non-oppressive learning requires self-reflection and actively communicating, listening to the experiences of marginalized students, connecting with direct experiences, and allowing students to voice what they see (Jaime-Diaz and Méndez-Negrete, 2021). Therefore, it is interesting to question how environmental education concepts and practices are applied in schools. This is relevant to the view Stevenson regarding the need to examine the goals and practices of schools in environmental education orientation (Stevenson, 2007). According to Parker and Prabawa-Sear (2019), there are at least four problematic aspects of pedagogy in Indonesia and many other developing countries, namely the continued dominance of rote learning; focus on transmitting facts; the gap between environmental awareness and knowledge on the one hand and pro-environmental behavior on the other; and the effects of learned helplessness and apathy. Therefore, there is also a need to address many problems facing environmental education so that several revisions of ideas from existing

environmental education approaches and models are needed. On the one hand, it is crucial to emphasize the importance of critical reflective awareness and environmental care. Historically, the current state of education in Indonesia cannot be separated from the remnants of colonial educational practices that aim to make the natives obedient to the invaders, easily subjugated and exploited (Penders, 1968). In addition, it is necessary to ensure that the process avoids the practice of domination, marginalization, and indoctrination in the form of uniform practices that tend to limit what can be done; who has the right to say and give an appropriate assessment and who has not. Learning efforts can be done by providing accessible opportunities to analyze various competing environmental perspectives and providing many choices of environmental actions, including investigating the structural causes of the socio-ecological crisis reflectively and critically.

This tendency to reduce environmental education practices cannot be separated from the still educational solid perspective that focuses on conservation, positivism, and scientism (Srbinovski and Stanišić, 2020); the approach used focuses on behavior modification with deterministic characteristics in the form of control, predictive, routine-mechanistic (Schild, 2016). Positivist culture has influenced the school process, which reduces knowledge limited to technical interests and instrumentalist knowledge that dissolves reality into objectivity (Giroux, 2018). Considerations of efficiency and technical skills often replace social justice considerations are often depoliticized (Apple, 2018). The more likely students perceive social criticism as threatening, the greater the tendency for teachers to control the selection and flow of ideas so that what many students experience tends to be coercive rather than liberating. This potential then makes participatory critical pedagogy often attacked, especially from coercive pedagogy, because it allows the voices of marginalized students to have a place to turn their communities into sites of struggle and resistance

(Sleeter and McLaren, 1995). Moreover, the current orientation of teacher education, which still serves the interests of those in power and maintains the status quo, will keep attention away from social justice (Kitts, 2020). This, at the same time, still reinforces the trend where educational intervention in the current assessment is still dominant, using quantitative measures that reflect a positivist epistemology and its emphasis on efficiency and objective results (O’Flaherty and Liddy, 2018). In this regard, the critical theory thinking of the Frankfurt School has long provided its perspective on how dominant ideologies are formed and mediated through certain cultural formations through ideological control, including in educational practice in schools. Therefore, Hill (2022) assesses the need to involve socio-political, explicitly economic, and school environment contexts in pedagogic theory and teacher education through critical Marxist reflection.

In addition, environmental management is still dominantly using a top-down approach (there are still citizens who do not feel empowered enough to participate in decision-making regarding environmental issues), so it is feared that it will create conditions that strengthen hierarchical power where other participants/actors take over the dialogical and participatory process. Teachers can facilitate or hinder the creation of political space in educational situations. The political dimension is often neutralized when the teacher determines what knowledge and moral orientation students should learn (Van Poeck and Östman, 2018). Many educators view the environment and politics as separate fields of inquiry and rarely use learning pedagogy interdisciplinarity and political and environmental interconnectivity so that social justice issues are not adequately addressed (Kirsop-Taylor *et al.*, 2020). It is not intended to minimize the success of environmental education that already exists and is currently taking place. However, the aspect environmental citizenship has not been an explicit focus in the environmental education model so far. Environmental education



practices that only seek to change individual behaviour or increase students' knowledge of environmental issues will fail to promote environmental citizenship.

### **Capturing the source of youth's hope**

Current practice is recognized as encouraging commitment to caring for the natural environment but is insufficient to foster environmental citizenship, such as encouraging critical involvement and democratic processes to prevent and solve environmental problems (Ghosn-Chelala and Akar, 2021). Current research has not reported how the sources of expectations from students are investigated and how educational programs contain elements that can increase environmental expectations (Kerret *et al.*, 2020). Teachers still see young people less as agents of change and more as passive citizens who have to accept life in the world (Ghosn-Chelala and Akar, 2021). In the context of education in Indonesia, it is still very strongly influenced by civic education, which is directed to make students in schools good citizens, as indicated by the form of compliance through a normative approach. The criticism that was developed in schools was also judged to be part of a system that creates global environmental problems, and not much is expected to criticize the structure of capitalism, inequality, and injustice that creates environmental damage (Parker and Prabawa-Sear, 2019). Especially in Indonesia, many teachers are civil servants, and there is a substantial social value in the form of shyness or respectful politeness among students. This condition is reminiscent of the re-practice of the remnants of Dutch colonialism in Aceh, which sought to minimize resistance efforts and ensure compliance by combining exile with pedagogy. The colonial government forced the Acehnese elite to send them to “training schools” in Java in the hope of turning the Acehnese elite into loyal servants of the colonial center (Gedacht, 2021). Indeed, at this time, Indonesia has

separated from the dictatorial regime and entered the reform era. However, decolonization efforts in education are continuing in various forms, such as high demands to be loyal and obedient to a policy even though it is wrong.

The practice of critical pedagogy is still not widely studied in discussing critical issues and may even be considered radical/controversial (Joseph Jeyaraj and Gandolfi, 2020). The gap in the practice of critical pedagogy is that it is not clear how expectations (making the language of criticism a possibility) about democracy and education lead to transformations that can activate student agency (Ichikawa, 2022). Critical pedagogy should not be considered only as a teaching practice in the classroom for dialogical education. However, it should be considered a political process of inquiry into the formal and informal relations of power exercised in schools and the entire educational process (K. P., 2019). If it is not discussed critically, it will tend to fall back on conventional thinking, which only relies on scientific management and knowledge transfer (Brand, Görg and Wissen, 2020).

There is a potential duality between the interaction of institutions and agents, namely how institutions are reproduced (norms, rules, and common factors at the institutional level) or challenged in particular life through socio-political activities (understanding, values, resources, and relationships at the agency level) (Calderon and Westin, 2021). This condition is relevant to the emergence and development of social reproduction analysis in education. Collins (2009) observes that there have been attempts to trace the relationship between economic structures, school experiences, modes of consciousness, and cultural activities. There is a shift in social reproduction from the early studies that emerged in the 1960s and 1970s looking at the influence of schools on educational attainment and job outcomes. Finally, it is now starting to develop into a complex economic, cultural and linguistic perspective among the

structures and processes resulting from the interaction of classrooms, schools, and society.

It is still rare to give young people a voice in viewing sustainable development issues in all their interrelated complexities of environmental and socio-economic perspectives (Sass *et al.*, 2021). The importance of leadership in education actively fosters citizenship through critical competence, intellectual development, and involvement in issues and themes both inside and outside the school through intersubjective interactions (Gardner-McTaggart, 2020).

Although there are still varied definitions (often overlapping and even contradictory), the concept of environmental citizenship in the context of education is still an urgent need because it is still not explored what behavior change is emphasized so that it needs to be updated and expanded to achieve positive results for the environment (Hadjichambis and Reis, 2020). Therefore, expanding the concept and meaning of students as citizens of the environment who tend to experience reduced learning experiences that are limited in their interactions at school is necessary.

For knowledge production, there is a need to build environmental citizenship through bottom-up approaches (co-production between experts and citizens) and participatory processes (Smederevac-Lalic *et al.*, 2020). Student civic engagement can be supported and encouraged by schools through an open school climate, democratic structures within schools, early opportunities for active participation, promotion of students' civic knowledge, and propensity to engage in future civic activities (Schulz *et al.*, 2018). Student involvement in environmental activism initiatives can promote communication skills through exchanging arguments for specific actions, skills to investigate causes and solutions, critical thinking, commitment, and empowerment (Reis, 2020).

Alternative efforts to address this need include promoting awareness of local

issues and sensitizing communities to become active through diagnostic skills and strategic planning to promote commitment to socio-environmental change (Gutiérrez-Pérez and Poza-Vilches, 2012).

### **Critical ecological perspective**

Critical theory is intended as an alternative driven by transformative intentions and particular concern with the culture of modern life. Critical theory can be a bridge in promoting the need for self-awareness in a critical and anticipatory way towards various social contradictions. Educational practices that are liberating and empowering are needed by utilizing everyday life experiences as a counter-hegemonic and counter-narrative over the dominance of the instrumental ratio. Based on critical theory, there are at least two 'big problems' regarding the environment from a sociological perspective, namely (1) the role of rationality in human-nature relations and (2) the commodification of the environment and environmentalists (Gunderson, 2015). This idea shows that the Frankfurt theorists firmly placed the dominance of the environment through instrumental rationality, unreflective technical progress, and the development of capitalism against the domination of nature and the physical man. Based on its sociological origins, the domination thesis of the Frankfurt school is derived from the revision and synthesis of three different theoretical traditions: Freudian, Weberian, and Marxian. First, Sigmund Freud stated that the formation and reproduction of civilization depend on the mastery and control of individual drives and are maintained and developed by the sublimation of repressed desires. Second, Max Weber saw that modern society replaces traditional, value-laden, and non-empirical understandings of the world and action orientation with impersonal, technical, and calculative types of rationality that posit more efficient ways of meeting goals (e.g., profit-chasing) and rationality—institutionalized in modern bureaucracies and capitalist

organizations. Third, Karl Marx (social ontology) sees that nature is increasingly becoming a commodity under capitalism, as an object that is reified and treated as a commodity to be exploited by the ruling class. More tragically, many analyses of environmental problems are intended to save capitalism rather than efforts to prevent and save the planet, both water, land, and air, from exploitation activities. Too many ecological paradoxes result from the relationship between economic growth, technological change, and nature under the capitalist system. Foster, Clark and York (2011) have exemplified how the use value (as public wealth), which is the basis of human needs, has been turned into a commodity that is produced to be sold to the market to produce exchange value (aggregation of private wealth) under capitalism. This kind of capitalist practice ultimately creates scarcity to increase private wealth for a few people by seizing the production of public needs.

Through the dominance thesis presented by Horkheimer in 'Eclipse of Reason' (Gunderson, 2015), it is explained that modern society tends to formalize rationality to the point where social action and thought can only be judged by reference to self-interest. According to him, in modern society, the only human goal considered reasonable is the personal interest in self-preservation. The instrumental reason is aimed at using the most efficient way to preserve individual interests in an institutionalized form. In other words, 'nature has been stripped of all intrinsic value or meaning. The development of instrumental reason makes domination of nature more efficient and leads to human domination. Almost every cause of environmental damage, whether carried out individually or institutionally, originates from capitalist activities (production, distribution, and consumption), extractive industry activities, and so on, all of which are guided by instrumental rationality (maximizing profits) through the most efficient means. In Indonesia, some development policy contradictions often occur between the regulations of the Ministry of Energy and Mineral

Resources (ESDM) and the Ministry of Environment (KLH). Moreover, at this time, after the passing of the Omnibus Law on Job Creation (Law Number 11 of 2020), it has the potential to sacrifice environmental protection efforts. The abolition of environmental permits as business licenses, the absence of environmental observers and the public in the preparation of the Environmental Impact Analysis (AMDAL), and the weak protection of environmental defenders have the potential to compromise protection and exacerbate the burden of the environmental crisis. In other words, until now, the paradigm used by the government in viewing ecosystems is still placed as a commodity.

Still related to the dominance thesis, another view was put forward by Schnaiberg regarding the 'Treadmill of Production' (ToP), where the capitalist economy must continue to increase and expand production, create a production cycle ('treadmill') from natural resource extraction activities and create a surplus (Schnaiberg, Pellow and Weinberg, 2002). This is reinvested in the production mechanism to maximize profits further. Craig (2017) has helped demonstrate the relationship between capitalist growth and various ecological impacts. Capital accumulation for capitalist society as a force that organizes economic life determines what natural resources will be produced and how they can generate profits. Capital as an owned economic resource is used for investment purposes and returns that result in increased profits from the initial capital amount. The production of goods and services is only one circuit for another in the form of trade and finance in the form of payment in return. This is why, according to Schnaiberg, the treadmill is the leading cause of environmental degradation. Furthermore, this theory of environmental degradation from Schnaiberg became one of the most important contributions in environmental sociology based on empirical, logical, macro-level, and structural considerations. The Frankfurt School tries to show that rationalization has been radically formalized and used in modern society and has made utilitarian control

and control unreflective of today's human-nature relations. Today's nature is a mechanical universe and is forged infinitely to be dominated for the sake of preserving self-interest. In addition to questioning environmental rationality and environmental capitalism, the Frankfurt school in environmental sociology also blames science and technology for human-nature relations through whether science and technology are harmful or helpful to the environment. Some experts reject the claim that environmental damage can be overcome through the presence of technology and socio-technical-economic approaches. On the contrary, science and technology are the leading causes of unsustainability.

The use of technology is used to dominate people and nature in today's capitalist society. According to Marcuse's idea, advanced capitalism has replaced ontology with technology and the natural world with the technological world, or the totality of technology. Production activities are more associated with satisfying a more significant number of human needs and wants, and technological innovation will be placed productively to overcome these limitations. Optimism over unreflective technological advances often puts the industry at a greater risk of capital accumulation but at the expense of less risk of biosphere impacts than the environment has to bear. He believes institutionalized technical efficiency and non-substantive ultimate goals will only create 'one-dimensional' (non-critical) individuals and society. Technology is not an independent and autonomous force but is organized in late capitalism as a medium of domination, including the domination of nature. That is, technology, if governed by the interests of capital, will most likely be used to dominate further and dominate nature. Agenda 21 is an example of the paradox of instrumentalism. The more technology becomes a guiding principle of social policy, the more limited it is to discuss it other than trying to achieve it (White, 2004). Departing from Marcuse's assumption, the theory that claims that

technological innovation will be able to improve people's relations with nature (technical improvement) is contradictory from a critical theoretical perspective.

The instrumentalist narrative offers several insights into the technologies and eco-efficiency agendas that are believed to increase environmental quality measures. At the same time, however, the instrumentalist approach cannot address many of the causes of social unsustainability. According to White this is due to a mistake in understanding technology in its entirety, where there is a separation of human goals from technological means (White, 2004). Capitalist modernization absolutizes instrumental cognitive rationality in the form of political power and economic prosperity integrated with hedonism and consumerism, which causes the erosion of meaning because modernization suppresses another form of rationality, namely practical-moral rationality, as criticized by Habermas (Gunderson, 2015). In contrast to the instrumentalists who view technology as autonomous and having internal powers beyond human control, the technological determinism view sees the opposite that technology is not neutral. However, political forces reinforce some social interests and values, thereby changing the balance and direction of social development. Based on the annual report of The Indonesian Forum for Environment (WALHI), the largest and oldest non-government organization engaged in environmental advocacy in Indonesia has assessed that the Indonesian government has failed in overcoming the socio-ecological crisis. The high frequency of ecological disasters characterizes this condition, still ignoring risks and the frequent occurrence of repeated disasters such as cases of forest and land fires. Hence, they tend to plunge themselves into sustainable disasters (WALHI, 2021).



## **Intersubjective critical communication**

The practice of neoliberalism still dominates how we think about the world, including what should be and should not be (dream or perceived), including in environmental education, which often unwittingly limits our thoughts, feelings, and actions to us both as educators and researchers (Hursh, Henderson and Greenwood, 2015). Learning practices still emphasize consumption orientation, lifestyle, and efficiency; natural resources are still seen as commodities to be exploited to serve the development and economic growth; ecological issues are directed at individual responsibility. This relates to Relevant to Horkheimer's idea cited by Held (1980) that capitalism will only facilitate the expansion of production and greater control over nature, reducing individuals to the status of only functionaries of economic mechanisms and imposing suffering on a large scale. This seems to be the marginalization of the environmental risk approach in practice and testing in schools. In the writings of David Orr, quoted by Payne in his book "The missing politics of environmental education," he identified various absences, silences, or gaps in environmental education (Payne and Hart, 2020). Relevant to the problem and the need for a method, critical theory, among others, is intended to oppose hegemony as in the famous term by Antonio Gramsci, which emphasizes how dominant culture produces habits of submission to the ruled. This condition ultimately gives birth to empowerment-based awareness, education, and practical experience. For Gramsci, being an intellectual has a broad spectrum, including as an educator in schools who continues to seek to coordinate teaching campaigns and increases awareness to place education as the centre of hegemony. Therefore, Gramsci has given us a way to promote a worldview or challenge a dominant view (Mayo, 2022).

Quoting Habermas' view that the increasing tendency to define practical problems as technical problems threatens essential aspects of human life, it is

essential to counter this tendency and reaffirm the need for self-reflection for self-understanding (Held, 1980). Therefore, according to Habermas the understanding of meaning is the gate that the methodology must pass if the reflection that has been paralyzed by positivism is to be reintroduced into life (Milovanovic, 1989). The formulation of the concept of sociology starts from a communicative experience that is structured in a pre-scientific manner.

Measurement procedures must be adapted to cultural self-understanding of the life of the social world completely without relating it to measurement practices in the form of technical mastery. For this reason, Habermas further takes intersubjectivity as a starting point and builds subjectivity to intersubjectivity. As Habermas argues, the goal of critical theory is a form of life that is free from domination in all its forms inherent in truth itself; that goal has been anticipated in every act of communication.

Habermas diagnoses the loss of freedom as the "colonialization of the living world." According to him, the process of social integration is transformed into a system integration that displaces communicative actions that are oriented towards understanding each other with strategies oriented towards success. The loss of meaning and freedom shows the suppression of practical-moral rationality in today's modern life. Habermas asserts that his theory of communicative action is different from Weber's theory of rational action which departs from the teleological action model and specifies "subjective meaning" as an intention to act (communicative) (How, 1987). According to him, Weber sorts out the types of rational-purposeful, value-rational, effectual, and traditional actions. Success-oriented action is then referred to as instrumental action if the action is seen based on the technical rules of action to intervene in a complex situation and event. In communicative action, Habermas wants the agents' actions involved not to be regulated by egocentric calculations of success but by acts of achieving understanding in at least two critical aspects of

communicative action theory (1) in discussions between participants, they aim to reach an agreement that can be evaluated with the criteria of claim validity, and (2) there are rules governing participation so that all communication can be tested whether understood or not understood, sincere, honest, and appropriately expressed (Murphy and Fleming, 2010).

When it comes to implications for education, Habermas indeed prefers to refer to the possibility of the broader social learning process being institutionalized and instead provides few comments on educational topics. There has been no concerted and focused effort to introduce his ideas to the broader field of education (Murphy and Fleming, 2010). Addressing this lack, there have been attempts to examine the contributions of Habermas' theory in the fields of pedagogy, classroom learning and interaction, the relationship between education, civil society, and the state, forms of democracy, critical thinking, and performance, audit culture, and accountability. Reaffirming Habermas's view of Western society's crisis tendencies (collapse of public space, the decline of civil society, and the invasion of the living world), communicative action and deliberative democracy can be an alternative to get out of the crisis (Brookfield, 2005). An education system that seeks to strengthen democracy through Deliberative communication should be understood as communication in which different opinions and values can be brought together to ensure that each individual makes a decision, and is willing to listen, deliberate, seek arguments and evaluate. At the same time, there is a collective effort to find values and norms that can be agreed upon by all people (Murphy and Fleming, 2010). According to this theory, all communication is open to testing whether it can be understood, sincere, honest, and properly expressed. Therefore, the use of this theory is then deemed relevant for understanding the specifics of the educational process and explicitly investigating how the implementation of school environmental education activities is designed, structured, understood,

and mutually agreed upon by all stakeholders involving elements of the school and the community.

### **Environmental deliberative democracy**

Deliberative democracy or democratic deliberations offer different possible forms in which increased opportunities for citizen involvement are taken to be feasible and desirable. Citizen engagement is part of an ongoing critical dialogue on which more legitimate forms of political authority can be based (Smith, 2003). According to him, all citizens have the right to participate in political dialogue and have the same right to raise and question claims, put forward reasons, and state and challenge needs, values, and interests. In other words, every vote should not be excluded from the political process; citizens have the same right to be heard. Therefore, open dialogue requires the promotion of 'deliberative' instead of 'strategic' or 'instrumental' rationality. Theoretically, deliberative democracy improves the flow of information by actively involving multiple voices, including individuals and groups with direct experience of the effects of environmental change (Smith, 2003). For him, democratic deliberation encourages mutual recognition and respect and is oriented towards common understanding and public recognition of the common good. In the environmental context, the deliberative process provides a conducive arena where citizens can be exposed to alternative ways of conceptualizing the relationship between the human and non-human worlds. All voices have a right to be heard – those wishing to emphasize environmental values should not be restricted, although an equal right to be heard does not guarantee priority in judgments and decisions.

Consideration of the legitimacy of deliberative theory based on (1) rejection of coercive forms of power (power over) and (2) views to promote productive

power (power to) through deliberation (Curato, Hammond and Min, 2019). Deliberative democracy is built on rejecting coercive power (Dryzek, 2003). To capitalize on Habermas's idea of the potential for emancipation, (Murphy and Fleming, 2010) attempted to unify three concepts: citizenship, discourse ethics, and lifelong learning. According to him, the discourse is needed to present participatory pedagogy, focusing on the quality of dialogue, students' voices, contextual knowledge, and relevance to students' lives and narratives. In educational practice, narrative inquiry is one of the ways offered to understand certain experiential practices or phenomena. Also relevant to Habermas's concept of ethical discourse that encourages reasonable practice in the social sciences (Meier, 2012). Education's dominant means and outcomes emphasizing instrumental and strategic rationality need to be balanced by intersubjective and emancipatory interests through rational and critical reflective communication (Cooper, 2010).

On critical reflection, it is very relevant to bring together the thoughts of Habermas and Paulo Freire. Although there are differences in goals, both have the same initial basic premise that human autonomy and cognitive and moral reasoning levels can be realized through an interactive learning process, where Freire places the starting site of learning in face-to-face dialogue and literacy. At the same time, Habermas makes democracy a learning process (Morrow, 2012). According to him, the shared premise of the two is that becoming self-aware of educational activities marks the defining phase of human evolution as it unleashes the previously suppressed possibilities of reflexivity. In contrast, to use Habermas' terminology, the evolutionary meaning of mass education lies in its potential to facilitate the development of high-level capacities for reflexive learning that open up new historical possibilities for change.

## **Environmental education policy critique**

Educational programs rarely reconnect with 'environmental policy' but instead use titles that refer to global change, climate, sustainability, etc. Policymaking has the potential to produce or inhibit effects consistent with the conception and mobilization of environmental education topics in education policy (Mejía-Cáceres *et al.*, 2021). In his research, he finds development discourse to be the dominant discourse, so he recommends examining the relationship between the world of policymaking and research by reflecting on power and strategies for implementation, emancipation, and participation at various scales.

In the environmental crisis, it is necessary to broaden the lens of analysis, such as paying attention to educational practice's social and political dimensions. Teachers can facilitate and, at the same time, hinder the creation of political space in an educational situation, where the political dimension can be neutralized when the teacher is decisive in choosing what knowledge and moral orientation students should learn (Van Poeck and Östman, 2018). To build a conceptual and analytical framework, Slimani, Lange and Håkansson (2021) propose to consider environmental themes, political learning, and educational goals that support the curricular construction of the political dimension of environmental education so that students are not only individuals but also human beings and citizens in a democracy and society, members of a political community. The lack of proper pedagogy can be a barrier to the success of environmental education learning. Many educators see environment and politics as separate fields of inquiry and rarely use pedagogy that studies the interdisciplinarity and interconnectivity of politics and the environment. Through their research, Kirsop *et al.* show that problem-based pedagogy in complex socio-ecological interdisciplinary learning can introduce students to deep and reflective political understanding and encourage students as agents of

change in preparing the next generation of critical environmental problem-solving (Kirsop-Taylor *et al.*, 2020).

With these conditions, it is very relevant to look back at Paulo Freire's ideas on how to educate with hope and make the language of criticism a possibility through critical pedagogy. In line with the ongoing debate in the study of environmental education, at least there is a need to raise students' critical awareness through democratic reinforcement and the unforeseen or unintended consequences of technological solutions and economic growth (Payne and Hart, 2020). In the interest of capturing the contours of critical pedagogy, Manojan's research captures a number of intellectual trajectories; (1) Paulo Freire and his critical pedagogy highlight the importance of dialogue-based interactions between students and teachers to understand the realities of the world as well as to become facilitators for students to engage without fear and develop awareness and criticality into reflexive action to change the position of naive transitivity into critical transitive consciousness; (2) Marxian theorists and practitioners encourage the task of a critical educator to become a transformative intellectual and to form students as organic intellectuals for counter-hegemonic actions; (3) Gramscian theorists and practitioners require educative action to engage with common sense in interrogating the dominating educational patterns; (4) Habermas sees knowledge in three forms, namely technical knowledge (non-dialogical), (2) practical knowledge (understanding phenomena and applying them in social life), (3) emancipatory knowledge (understanding facts and historical-political factors behind them) (K. P., 2019). Critical pedagogy should not be considered only as a teaching practice in the classroom for dialogical education but should be considered a political process of inquiry into the formal and informal relations of power that is exercised in schools' entire educational process.

## **Critical Environmental Education**

For Freire, teaching is not a simple transmission of knowledge about objects or content, but rather teaching is a creative act, a critical action, and not a mechanical action. Educators must focus on the core of everyday teaching and build critical awareness of the curriculum they are building for their students (Ferris, 2022). When people do not have a critical understanding of their reality, perceiving it in fragments that they do not perceive as the interacting constituent elements of the whole, they cannot honestly know that reality (Chandia and Walley, 2018). Categorizing education into different disciplines isolates learning into fragmented pieces of information and prevents students from understanding the ideological webs connected behind social opportunity structures (Dale and Hyssop-Margison, 2010).

In his emancipatory political project, Freire has made the issue of literacy the main content of his pedagogical practice. In this perspective, according to him, literacy is not approached only as a technical skill that must be acquired, but as a necessary foundation for cultural action for freedom, namely being a socially shaped self and agent whose rights and responsibilities are not only to read, understand and to change their own experiences but also to reshape their relationship with the broader society. However, along the way, new conservatives and liberals have reduced literacy to a functional perspective linked to economic and ideological interests designed to initiate the poor into the dominant tradition (Giroux, 2015). This has finally led to the criticality of literacy due to the tendency to use old assumptions that interpret literacy as only a mechanical process that emphasizes the technical acquisition of reading and writing skills (Freire and Macedo, 2005).



Furthermore, in looking at the involvement of young people in dialogue, according to (Satchwell and Larkins (2018), understanding concepts from the perspective of students or learners is an important idea. However, it is often neglected in educational practice. Often, according to him, the perspective of children is not always taken into account when designing the curriculum. Instead, student voices are reduced to the performance that can be measured, administered, registered, and controlled (Henry A Giroux, 2018). The difficulty may lie in the capacity of adults to hear and understand rather than the capacity of children to express their views. As Freire argues, children's and adults' understanding of the world and how to rearrange it in new ways is a process of reflection, dialogue, and action. In Freire's view, leadership is developed through dialogue and is only valid if everyone has the right to participate in democratic decision-making as a process to resolve conflict issues (Dale and Hyssop-Margison, 2010). Students need to be given space and tools to develop and speak up and influence through action, and so do teachers. For him, teaching is not a neutral process but a process that critically engages with context, policies, and values and examines contributions and roles through applying the Freirean approach (Melling and Pilkington, 2018).

According to Giroux, in the emergence of new conservative discourses and the strengthening of neoliberalism, an authority that can be formed independently is needed to express the democratic conception of collective life, which is embodied in the ethics of solidarity and social transformation and the imaginative vision of citizenship. According to him, this is important as an effort to expand the definition of authority to include educational practices that link democracy, teaching, and practical learning. This view further emphasizes Giroux's struggle against dominant politics and culture, whose primary goal is to make one's complaints against social order heard and ideas and injustices to be discussed, negotiated, and ultimately eliminated through democratic political

means. The global youth environmental movement led by a young teenager from Sweden named Greta Thunberg shows that young people worldwide have become aware and engage critically. They create networks and platforms that enable them to promote radical socio-political, economic, and environmental agendas worldwide to promote equality and social justice for global citizenship (Robinson, 2021).

Meeting the premise of Habermas on communicative competence and Freire on critical literacy, further review is needed. Given the importance of critical literacy, Freire and Habermas have shared a concern that there are barriers and conditions to the creation of possibilities. Although the two depart from opposite ends in viewing critical literacy, Freire begins with questions about the condition of illiteracy and the marginalization of adults' access to education. In contrast, Habermas begins with a self-reflexive discourse on collective learning. Driven by the need for critical literacy and pedagogy, the following discussion requires a more specific review of the theoretical basis and learning activities. Freire departs from the starting point of the shift from behavioural transmission communication models to interactionist and dialogical discourse models, popularly known as mission-critical pedagogy, which facilitates the transition from magical awareness to critical awareness through participatory dialogue (Morrow, 2012). Meanwhile, on the other hand, the orientation towards communicative action and strategic action, as stated by Habermas, has significant implications and invites debate for educational practice. The main question in the debate revolves around the status of strategic interventions in teaching practice, so suggestions arise that communicative actions need to be complemented by pedagogical actions that involve a mixture of strategic control and dialogical communication.

Understanding Freire's and Habermas' confluence of thought can help demonstrate their relationship and contribution to educational practice. Freire's critical literacy opens opportunities for the growth of critical awareness of reality, supported by the potential for communicative competence and collective learning based on Habermas' theory of society. Furthermore, dialogical understanding in educational practice allows the development of critical communicative competence. Finally, there is hope for creating a close reciprocal relationship between reflexive learning, the formation of critical citizenship, and the potential for revitalizing the democratic public sphere.

### **Promoting environmental citizenship**

Citizenship, like democracy itself, is part of a historical tradition that represents a battlefield over the forms of knowledge, social practices, and values that are critical elements of that tradition. The concept of citizenship must also be understood in pedagogical terms as a political process of meaning-making, as a process of moral regulation and cultural production. In environmental philosophy, 'naturalness' is a source of value or something that citizens should respect and look at non-instrumentally. Therefore, 'respect for the different nature of nature involves a kind of restraint that means not identifying the natural world with interests and goals that animate the cultural landscape or viewing it fully instrumentally as a resource (Hailwood, 2005). A particular subjectivity is built around what it means to be a nation-state member. The notion of citizenship must be removed from forms of patriotism designed to subject citizens to the narrow imperative of the state. On the contrary, citizenship, in this case, becomes a process of dialogue and commitment rooted in a fundamental belief in the possibility of public life and the development of forms of solidarity that allow people to reflect and organize to criticize and limit the power of the state (Giroux, 2015).

The study results above show that environmental education activities are mainly carried out in the school environment (indoor), emphasizing environmentally friendly habits and practices. About this tendency, (Schild, 2016) has criticized the frequent environmental education that focuses on behaviour modification characterized by deterministic behaviour that seeks to control through predicting and strengthening specific ways of thinking and acting to have implications for the loss of authentic opportunities to exercise their agency. Because of this, many researchers have suggested that there is a need for educational models that can promote a strong type of Environmental Citizenship and move beyond individualistic and behaviourist approaches to integrate better Environmental Citizen engagement in civic participation and collective action in environmental education practices (Hadjichambis and Paraskeva-Hadjichambi, 2020). In order to develop environmentally literate citizenship and develop the ability to solve the increasingly complex environmental problems facing society, there is a need to increase students' access to environmental education field experiences and link these outdoor experiences to relevant in-class curricula.

The concept of environmental citizenship is present as a critique of neoliberal citizenship which seeks to shift the focus from citizens to consumers and from the state to corporations, and from politics to markets (Kaputa *et al.*, 2020) and shows a tendency to change citizens from political beings (zoon political) to economic human beings (homo economicus). Even a fully libertarian society or one that is close to extreme neoliberalism will see nature as a resource to be exploited in serving human needs and will include socio-political and economical solutions in environmental conservation solely to meet human needs (Levinson *et al.*, 2020). In neoliberal ideology, individuals are not seen as being in a social situation but as autonomous actors who make choices that determine their destiny (Parker and Prabawa-Sear, 2019). This can be seen, for

example, in efforts to save the environment, such as reducing the use of plastic bottles and recycling waste, which often end up being individualistic solutions to complex ecological problems (Reis and Guimaraes-Iosif, 2012).

## **Conclusion**

The relationship between natural exploitation, social conflict, and socio-ecological crisis is often hidden or deliberately hidden politically in environmental education. The question of who benefits the most, who is most responsible for the damage caused, and who is most harmed by human domination of nature is an important question but escapes the analysis of environmental education in schools. Education is an environment because it is impossible for education in schools and the practice of community life to be separated from the environment, so it is impossible to separate social problems from the environment. Critical pedagogy underlies ecopedagogy, place-based education, and Critical Urban Environmental Education (CUEP) is intended to interrogate dominant discourses and choice-limiting, reductionist, and instrumental technocratic rules. Ecopedagogy aims to bring critical reflection into action that empowers environmental agents in schools to end oppressive social structures (Misiaszek, 2016). Critical education can also be combined with place-based education to help students engage and understand through multidisciplinary learning and experiencing where they live (Stevenson, 2008). Meanwhile, CUEP is intended for youth awareness of social, economic, and political forces to recognize the ecological complexities and power relations that shape urban spaces (Bellino and Adams, 2017). This form of environmental education is a form of counter-narrative or alternative text on the discourse of green consumerism that seeks to reproduce the domination of capitalism, especially in the lives of young people.

The learning experience must be able to arouse students' curiosity to ask and answer questions about something unfair to environmental and social justice. The conceptualization of citizenship that initially focused on obedience must shift to efforts to empower democracy. The limited conceptualization of environmental citizenship in education from the perspective of institutions and educators must be expanded to explore and place students as critical environmental agents. Students who were initially only seen as consumers of knowledge must shift to become producers of knowledge by taking advantage of the complexity of the socio-ecological problems they experience and face daily. Schools must be places that support a democratic climate in promoting student environmental citizenship by providing sufficient space to convey voices, emotions, and hopes, as well as opportunities and possibilities for future restrictive and oppressive environmental action. This method can place and utilize students' self-experiential learning into a broader context so that students are not only limited to school but are conceptually expanded in their involvement outside school. Through this critical review, it is possible to revise the idea of the current EE model, including in Indonesia.

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