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The political dimension in environmental education curricula: Towards an integrative conceptual and analytical framework

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ABSTRACT

The risk of neutralizing the political dimension in environmental education through the depoliticization of its thematic objects, its intended learning, and its educational purposes, is a curricular phenomenon identified by recent research in the field. The aim of this article is to develop a conceptual and analytical framework to identify clarification of the political dimension. The framework on the political dimension as part of environmental education provides political learning entry that help to avoid the vanishing of this dimension. Nevertheless, this is not without themes and cannot be decoupled from its educational aims. Therefore, establishing a conceptual and analytical framework considering environmental themes, political learning and educational purposes together can effectively support the curricular construction of environmental education's political dimension. Thus, we define six environmental issue meta-themes by politicization and depoliticization trends that cross them; draw on environmental and political education research to identify political learning components in an environmental education context; and discuss linking political learning to possible educational purposes. We believe that within the dialectic of politicization/depoliticization that crosses the thematic subjects, learning and purposes of environmental education's political dimension, the path leading to the democratic subjectification of learners guarantees its non-neutralization.

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Environmental education; curriculum; political learning; environmental issue meta-themes; educational purposes

Introduction

In this article the political dimension is defined as conflict of interests about how to organise the society. The research question is if and how this dimension evolves in the practice of environmental education and especially from the perspective if conflict of interests takes part in educational practice or if it is depoliticized, which focuses on a society were consensus and harmony as the goal in organising the citizens? The political dimension in environmental education is institutionalised in international politics through agendas, of which the most recent is the UN's 2030 Agenda for Sustainable Development. The institutionalisation of this dimension in educational content is embodied in international recommendations elaborated by UNESCO (Rieckmann 2017),

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the most recent version of which is Education for Sustainable Development Goals. It is also incorporated in national curricula for science and environmental education. Eco-Schools are a pioneering programme that has been implemented to address environmental issues. Such programmes reflect an effort to reorient formal education towards sustainability (Rickinson, Hall, and Reid 2016).

The integration of environmental issues in educational content is inextricable from the question of development, which makes them factually and normatively very controversial (Van Poeck and Östman 2018). Political controversies emerge because there is a lack of agreement regarding the norms and values that ought to accompany the solutions to these problems (Block, Goeminne, and Van Poeck 2018; Garrison, Östman, and Håkansson 2015). Thus, among the major challenges for the furtherance of educational content involving environmental and development issues are the organisation and selection of content and pedagogical methods that facilitate the articulation of questions regarding the materiality of the universe with that of sociality and human subjectivity as inextricable dimensions (Van Poeck 2019). In the field of environmental education research, this corresponds to the question posed by Håkansson, Kronlid, and Östman (2019): 'How can or should the political dimension be staged as a teaching and learning content?'

In recent years, environmental education research has focused on the development of conceptual and analytical frameworks aimed at understanding the pedagogical and didactic methods that prepare learners to participate in the political processes involved in environmental issues (Levy and Zint 2013). Thus, there is a need to re-politicise the content of environmental education by rethinking the political dimension of environmental and sustainable development education according to several guidelines: unmasking the political dimension, seeing beyond the relativistic and objectivistic divide, and using emotion as a driving force (Sund and Öhman 2014).

Previous research on the political dimension in environmental education

The risk of neutralizing the political dimension in environmental education is a manifestation of a curricular phenomenon observed in educational practice in general. It is the phenomenon of gaps between formal and practiced curricula. In environmental education, these gaps have been previously highlighted by Haking, Scott, and Barratt (2007) as being between the philosophy of environmental education and its practice, which constitutes barriers to linking children's actual real-world experiences to the practiced curricula. Tan and Pedretti (2010) also identified such gap as a lack of alignment between formal and practiced curricula, leading to a blurring of the paths towards achieving the goals of socially transformative environmental education.

Environmental education research provides a growing body of work on the analysis of the political dimension in curricula. In their literature review of the research field of environmental and sustainable education, Håkansson, Kronlid, and Östman (2019) search for how the political dimension is perceived as conflicts of interest and how it could or should be staged as a teaching and learning content in environmental education. They identify this political dimension consisting of four aspects. First, it is a generator of inclusion and consensus that follows a normative vision of school activities. Second, it contains cognitive and emotional elements generated by students' commitments, interests, desires, dreams, and needs mobilized in educational situations. Third, it involves power relations in the classroom that may result from social exclusion. Fourth, it encompasses a decision-making process, mobilizing social skills of anticipatory, systems and, critical thinking. Their overall impression is that within the research the picture evolve that 'take conflict for granted, but that their ways of handling the political dimension tend to downplay the political and produce political sameness' (p 7), i.e. a depoliticization. Further, the conclusion of the literature review is the risk that the political dimension is depoliticized through of externalizing the political dimension by contesting and accusing the present socio-economic hegemony or erasing the political dimension in favour for social cohesion. Another important conclusion is that the political dimension mostly is treated as cognitive-rational and less as emotional. Another work by Håkansson, Östman, and Van Poeck (2018) has pushed the analysis towards a categorization

of the situations of environmental education according to the political tendency that crosses them. This tendency can take the form of 'democratic participation', 'political reflection', 'political deliberation' or 'political moment'. The situation of democratic participation focuses on the forms and processes of organizing social life. The situations of political reflection deal with cognitive reflections on environmental issues, in which previous knowledge is exploited to develop new knowledge and conceptions among learners. Political deliberation situations are mainly presented as argumentative reflections to defend an opinion, a point of view, or an alternative choice. Finally, the situations of a political moment are those of strong emotional experiences emerging from engagement in a conflict related to the organization of social life. More recently, from the study of an educational situation involving a socio-scientific environmental issue on citizens' participation in the goal of achieving a sustainable society, Håkansson and Östman (2019) have developed an analytical model that integrates four phases of a political moment. The starting phase is always situated in a poignant political experience that leads to a political reaction or an investigation of that experience or moment. This investigation is, subsequently, focused on the process of creating the meaning in the political dimension, which leads to a decision-making process related to the environmental issue evoked.

Van Poeck and Vandenaebelle (2012) emphasize the importance of analysing educational practices in terms of their democratic character to support the development of citizen participation. This analysis is positioned towards the search for potential opportunities to enrich the discussion on the democratic paradox of environmental and sustainable development education practices (Van Poeck, Goeminne, and Vandenaebelle 2016). More recently, Van Poeck and Östman (2018) have focused on developing an analytical method to study how teachers' actions facilitate or inhibit the creation of space for the political in educational situations. Through discussing a workshop on ecological footprints, they show that education and politics become entangled within the practices of environmental education. In fact, according to these authors, educational practices are always conceptualised as intrinsically political compositions in the sense that necessarily implies an inevitable struggle in the choice of curricular contents and pedagogical methods. The political dimension is neutralized when the educator strongly determines, in advance, what knowledge and what moral orientation student should learn.

This research highlights the gaps introduced by the environmental education practice that neutralizes the political dimension. It also suggests approaches to avoid the weakening of this dimension. This leads us to operationalize our research question in the form of a research objective: to propose a conceptual and analytical framework that seeks to minimize the gaps between formal and practiced curricula.

Conceptual and analytical framework for the political dimension in environmental education curricula

Previous research provides three entries for the political dimension in environmental education: the themes of the environmental issues addressed, the political learning targets, and their educational purposes. We have used these entries to propose a conceptual and analytical framework aiming for a non-neutralization of the political dimension, i.e. not only letting "conflicts of interest" evolves in educational practice but also as a personal-existential concern for the students.

First entry: Political tendencies in themes of environmental issues

The conceptual and analytical exploration of political tendencies in the content of environmental education curricula first requires a thematic classification of these issues. For this purpose, we have been inspired by an empirical study that has been proposed by Finlayson, Markewitz, and Frayret (2014). This study, which was exploratory in nature, has the advantage of being conducted

on an international scale. Thus, it involved a large corpus of thematic contents on environmental issues collected from the curricula of many countries. Drawing in part from this work, we have proposed a system to classify the thematic content of environmental issues into six meta-themes: environmental politics, environmental ethics, agri-food, sustainable development, environmental technologies and management, and transitions (Slimani, Barthes, and Lange 2020). Then, we explored the tendencies of politicization or those of depoliticization that run through them.

Environmental politics Meta-theme

The environmental politics meta-theme generally addresses the issues of water and air pollution, waste and ecosystem management, and biodiversity protection. It also addresses issues related to climate change. Environmental governance, which is at the heart of environmental politics, has not escaped the risk of 'depoliticization' by claiming that this type of social interaction on environmental issues is apolitical (McCarthy 2013). Discourse on the topics of green economy and ecological modernisation is fundamentally apolitical. This discourse advances the view of some dominant actors that certain environmental degradation issues, such as climate change, cannot be a matter for debate and no deliberated decision-making can be made regarding to these issues. Environmental justice is a cross-cutting category in environmental politics (Fol and Pflieger 2010). It is not reduced to the issues of access to environmental resources or unequal distribution of environmental costs. It involves recognition of plural modes of being in the environment considered as an inhabited space in which a person experiences a possible power (Centemeri, Borja, and Gaudin 2016). Environmental justice is also considered both as a category of collective action of social movements (political action) and environmental public policy action, as well as a legal-political category.

Environmental ethics Meta-theme

The environmental ethics meta-theme discusses value systems guiding human action in the environmental field. The ethical discussions in environmental education and sustainable development curricula have been appropriated by dominant political ideologies, such as neoliberalism (Kopnina 2012). These ideologies have acted as inhibitors of democratic deliberation aimed at a situational or contextual prioritization of environmental values by placing ecocentric and biocentric perspectives at a disadvantage. They impose a communicative deliberation that disadvantages pluralistic ethical problematisation in favour of adopting an anthropocentric ethical approach over ecocentric or biocentric values. Larrère (2010) identifies biocentrism and ecocentrism as the two main currents of principal posture in environmental ethics. These two trends are based on the rejection of anthropocentrism, opposing those views that fail to take into account the diversity of instrumental values. The contextual posture of applied environmental ethics has the advantage of going beyond the limits of the anthropocentric approach, the biocentric approach, and the ecocentric approach. This posture corresponds to pragmatism, in which the solution to an environmental moral problem corresponds to a hierarchy of values resulting from public deliberation.

Agri-food Meta-theme

The agri-food meta-theme addresses social, cultural, ethical, and environmental aspects of the social practices in food production and consumption systems. These systems do not escape the impacts of the constantly dynamic economic and social forces at work in human society. Sumner (2013) hypothesises that we can learn to 'read the world by eating' in way in which food appears to be more than a compilation of nutrients; it becomes a physical, social, personal, and political entity. In this approach, agri-food issues are conceived as food literacy issues. This author also proposes the development of food literacy beyond the consumerist approach and an orientation towards a critical literacy aimed at revealing the hidden power structures underlying food

systems. Renting, Schermer, and Rossi (2012) conceptualise food democracy as a redistribution of power in the agri-food system, in which citizens increasingly claim their influence on the organization and functioning of food production thus moving from being passive consumers to active citizens by exploring new ways of engagement.

Sustainable development Meta-theme

The sustainable development meta-theme suggests the need to integrate environmental and equity issues with economic growth. Hopwood, Mellor, and O'Brien (2005) propose a conceptual framework for the different political positions on sustainable development. They distinguish two opposing viewpoints: the *status quo* point of view and the transformist point of view. This is in addition to another intermediary, namely the reformist approach. The *status quo* view assumes that sustainable development will not require real change in terms of decision-making or power relations. The transformist viewpoint corresponds to a heterogeneous set of trends which nevertheless share the same viewpoint that environmental and social crises are interconnected, and that social and environmental systems risk collapse in the absence of a radical change. The reformist perspective is supported by several government agencies and non-governmental organizations such as Greenpeace and Friends of the Earth. Reformers have identified a key role of government in sustainable development by assuming that the political system reform, as an anchor for democracy and participation, is a crucial factor in sustainable development. This viewpoint is based on the recognition that inequalities in development, which are a major cause of the sustainability crisis facing the world at the beginning of the 21st century, are also at the root of ecological inequalities resulting from economic power relations.

Environmental technologies and management

The environmental technologies and management meta-theme is composed of issues integrating environmental sustainability concerns into technological products. This allows these products to internalise the issue of desirable societal transformation. Environmental management is a set of tools and procedures that aim to assess, then reduce the impact of one or more business activities on the environment through environmental analyses or management control systems. Reed (1996) discusses the issues and contexts that, in general, have historically guided theories in organisational science. Justice appears as a meta-narrative framework for organisational analyses in the transition towards participatory democracy. In fact, this framework raises fundamental questions about the types of governance and control in contemporary organisations and their moral and political foundations for justice. Furthermore, it affirms the centrality of issues relating to the distribution of political, economic, and cultural power.

Transitions Meta-theme

The transitions meta-theme deals with the processes of changing systems associated with social services such as housing, transportation, energy, food, and water supply, into more sustainable systems. Loorbach, Frantzeskaki, and Avelino (2017) have distinguished three research approaches to studying transitions. The first is the socio-technical approach, which grounds its references in scientific and technological studies. The second is the socio-ecological approach, which is based on knowledge from ecology, biology, complex adaptive systems theory, and adaptive governance. The third is the socio-institutional approach, which relies on the social sciences to identify institutionalised cultures, structures, and practices as regimes in which transitional changes take place.

Second entry: Political learning in environmental education

We transpose, in the context of environmental education, the analytical framework for political learning proposed by Sloam (2010, 2011), which defines political learning as a

four-component system that consists of political literacy learning, political participation learning, political deliberation learning and political experience learning. This is in order to conceptualise political learning in educational content involving environmental issues into a four-component system: learning eco-literacy, learning deliberation, learning citizenship, and learning in collective educative action regimes (Slimani, Lange, and Azzouna 2018).

Learning eco-literacy

Learning eco-literacy in scientific disciplines is an extension of scientific literacy to environmental issues (Code 2019). It can be conceptualised as the development of a latent capacity to read nature. Huckle (2013) identifies three complementary forms of this type of literacy: a technical form, a cultural form, and a critical form. The first refers to an understanding of the basic sciences in terms of their relevance to societal issues. The second refers to understanding the ways in which different cultures comprehend and value nature. The third refers to an understanding of sustainable development in the context of political economy and social reproduction.

Learning citizenship

Learning citizenship is learning about social roles in an emerging community of eco-citizens with the goal of reducing the ecological footprint (Dobson 2006; Machin 2012) in its various components (water footprint, energy footprint, and carbon footprint). Johnson and Morris (2010) identify, in a synthesis of conceptions of the 'ideal citizen' from a critical pedagogical perspective, three characteristics of political citizens: adaptive, individualistic, and critical-democratic. The adaptive citizen is the one who is obedient, has good manners, and acts responsibly. The individualistic citizen participates in society by adopting an individualistic perspective. He or she does not conceive of rights, duties, and responsibilities as a moral obligation, but as a tool that serves his or her own interests. Rights are interpreted primarily in terms of protection of the individual and his or her autonomy. Duties are undervalued, since they represent a restriction of individual freedom. The critical democratic citizen is cooperative, concerned with social justice, and motivated for social change.

Learning deliberation

Learning deliberation is learning from debate in problematic environmental situations (Machin 2014) that are subject to scientific uncertainty. Håkansson, Östman, and Van Poeck (2018) have differentiated these situations, in the context of environmental education, according to the 'political trend' that runs through them. These authors distinguished three categories of political deliberation: normative, consensual, and conflictual. Normative political deliberation is oriented towards the adoption of a point of view specified *a priori* by the teacher. It aims to prepare learners for different roles through the development of capacities to take care of their own health or that of their families by contributing to more sustainable development. Consensual political deliberation is oriented towards consensus in order to overcome differences. It aims to facilitate learning negotiation and conflict resolution as well as social harmony and peace. Conflictual deliberation takes up the defence of opposing perspectives. It aims to build of learners' subjectivity in situations that give explicit importance to conflict, the defence of opposing perspectives, antagonistic relationships, and strong emotional experiences.

Learning in collective action regimes

Learning in collective action regimes is a political experience based on collective environmental actions carried out at the level of the school institution and its district. Generally linked to empowerment, these activities avoid approaches that ignore marginalised subjects (Reid et al.

2008) by promoting the integration of the democratic process as part of the educational process (Lysgaard and Simovska 2016; Schnack 2008). Thus, the democratic process can be recontextualised in environmental education and in light of Biesta's (2010, 2013) work on the philosophy of education as a process of positioning the learner as a subject of initiative and not an object of action (Reid 2019). Lange (2011, 2015) identifies a range of three types of collective action regimes: a minimalist regime, an intermediate regime, and a maximalist regime. In a minimalist regime, coordination between social agents is only a juxtaposition of interventions, and the inter-comprehension between stakeholders is supposed to be instantaneous. In an intermediate regime, coordination can take the form of a community of practice acting as a place of learning, where practice develops and is sustained, and member roles are developed through various forms of engagement and participation. In a maximalist regime, the coordination forms a learning community comprising a collective of learners in a learning context that emphasizes social interaction and identity rather than individual action.

Third entry: Purposes of the political learning in the context of environmental education

Since the language of learning decoupled from the question of its purpose (i.e. without an indication of why something should be learned) constitutes a shortcoming for any educational practice (Biesta 2017), we have examined the conceptualisation of the possible purposes for political learning in the context of environmental education.

In the philosophy of education, Biesta (2010) discusses the functions of education, which he summarises as qualification, socialisation, and subjectification. In the function of subjectification, education contributes to the emergence of the subject-matter to be a matter for the subject, i.e. it concerns the student on the level of personal existential and thereby who they are, their personal identity. In the qualification function, education contributes to the acquisition of specific or general knowledge and skills. In the function of socialisation, education is seen as a path leading to the integration of individuals into existing social, cultural, political, and moral systems.

We relied on these ideas to classify these educational purposes into two groups (Slimani, Lange, and Azzouna 2018). The first group includes cognitive purposes as congruent to the goals of qualification and socialisation. The second includes democratic subjectification as self-building and authorization.

Disciplinary cognitive purpose

Learning in scientific disciplines is interpreted, from the perspective of the theory of didactic situations, as cognitive adaptation to a learning environment (Orange 2007). This idea of adaptation constitutes a strong epistemological anchoring for the educational purpose of socialisation through disciplinary cognitive logics (disciplinary matrices), by considering the teaching and the learning of science not as a corpus of de-socialised factual content, but as a cultural activity (Albe 2011). Thus, the educational situations involved acculturate to the scientific practices of problematisation. In fact, the problematisation of environmental issues, such as climate change or biodiversity management, is a pedagogical tool that promotes the cognitive empowerment of learners. It helps them to deconstruct the underlying discourses of hegemony (Slimani 2019).

Political cognitive purpose

Learning content involving environmental issues can target the co-construction of knowledge and subjective, singular, and interdependent identities, which are linked by the social, local, and international division of labour to reduce the environmental footprint (Dobson 2006) and allow for real cohesion and universalised eco-citizenship (Martinez 2010). This kind of learning corresponds to social roles that characterise the status of the eco-citizen as a member of a political community (i.e. the eco-citizen community), which is the basis of political cognitive socialisation.

Critical cognitive purpose

Many environmental issues are socially acute questions. The pedagogical modalities proposed by research for teaching these questions (e.g. debate-situations, epistemological disturbances, case studies) aim at ‘warming’ them. These questions are qualified as post-normal, in situations of education to scientific uncertainty. Such uncertainty is induced by the links established between scientific knowledge and its socio-political context. It is linked, on the one hand, to the processes of selecting information and checking its validity during the production of knowledge, and to the relevance of the scientific knowledge produced in the context of its use, on the other. The pedagogical warming of these questions consists epistemologically in taking into account a level of uncertainty linked to the diversity of perceptions of context and the risks of using this knowledge (Morin, Simonneaux, and Tytler 2017). Debate, as a warming tool, is an opportunity for socialisation. It fosters argumentation and development of exploratory discourses and helps to overcome the cultural consequences of instrumental rationality towards a model of collegial expertise. The latter, which is fundamentally open, exploratory, and intercultural, provides the epistemological basis for critical cognitive socialisation.

Democratic subjectification purpose

Learning in collective action regimes, such as those proposed in the framework of Education for Sustainable Development, is considered a social practice of democracy (Lange 2011, 2015). In fact, this practice is associated with a relationship of reflexivity that social actors, at the level of the school institution, maintain with their own actions and those of others in the form of collective action. This idea of reflexivity, through its insistence on the role of individuals, makes it possible to reconceptualise socialisation as an unfinished process and a factor of social change (Caetano 2014). Thus, the reflexivity of social actors participates in the construction of ‘dispositions’ as resulting from a mode of subjectification based on discussion, namely, democratic subjectification.

Conclusion

The risk of neutralizing the political dimension in environmental education through the depoliticization of its thematic objects, its intended learning, and its educational purposes, is a curricular phenomenon identified by recent research in the field. It is a phenomenon of gaps, in relation to the formal recommendations and expectations introduced by educational practice (i.e. in the practiced curricula). In addition, Håkansson, Kronlid, and Östman (2019) show in their literature overview of how the political dimension appears in the research field of Environmental and Sustainable Development Education. They find an overwhelming risk of depoliticization.

As a response to that finding, the aim of this article is to develop a conceptual and analytical framework to identify clarification of the political dimension which may be depoliticized or politicized. The framework on the political dimension as part of environmental education provides three entries—themes, learning, and educational purposes—that help to avoid the vanishing of this dimension. However, this research has focused on political learning. The other entries, if they are taken into consideration, remain without a conceptual and analytical framework that is as detailed as that of political learning. In this article, we propose a conceptual and analytical framework that integrates the three entries of the political dimension in environmental education (Figure 1).

This framework, which provides the components of each entry, also summarizes the trajectories of depoliticization and politicization that can operate through these components. In fact, the environmental themes that comprise meta-themes can be handled according to a tendency of politicization as they can be depoliticized. The same happens for the intended political learning. Thus, according to the politicized or depoliticized tendency of the themes and learning implemented, two main purposes are possible: cognitive socialization or subjectification. This conceptual and analytical framework also makes it possible to map out a path to ensure that

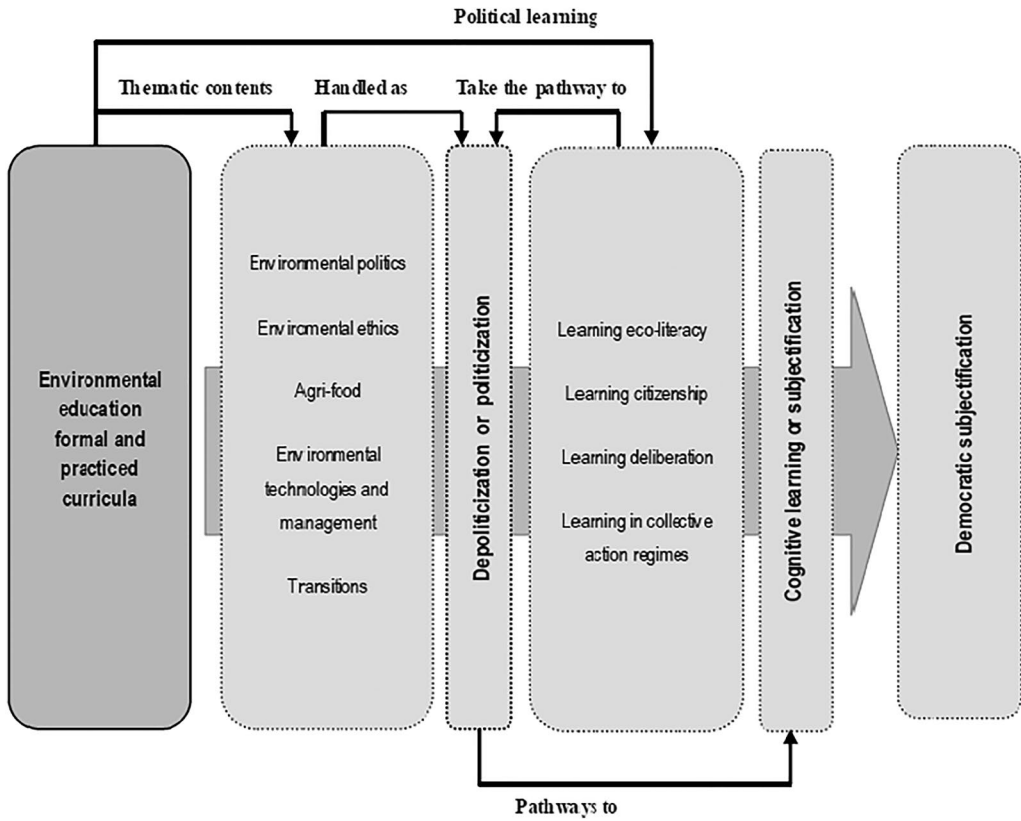


Figure 1. Conceptual and analytical framework for the political dimension in environmental education curricula.

the political dimension does not vanish in the practiced curricula of environmental education. This path leads to the ultimate purpose of democratic subjectification, which is to make the political dimension as a subject-matter to be matter for the subject, i.e. not only for the person as a student, but as a human being and citizen in the democratic and political community.

Disclosure statement

No potential conflict of interest was provided by the author(s).

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