



Widespread
School

**TOWARDS AN
UNDERSTANDING OF
“EDUCATION OUTSIDE THE
CLASSROOM” (EOtC). A
LITERATURE REVIEW**



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What is “Education Outside the Classroom”?

Traditionally, educational practice has been conducted within the walls of the school institution, which serves as the dominant context for carrying out teaching and learning processes. The use of spaces outside the classroom has been sporadic and infrequent, typically limited to occasional school excursions (Glackin, 2018).

However, relocating teaching outside the conventional classroom has been suggested as a factor that facilitates learning processes by enhancing the connections between real-life situations and problems and curricular competencies (Zipin & Brennan, 2024). This approach aids in the contextualization of education, fostering greater meaningfulness and stronger connections between learning experiences inside and outside the classroom (Llopart & Esteban-Guitart, 2017). Consequently, several benefits have been identified in what is known as "Education Outside the Classroom" (hereafter referred to as EOTC). According to Mygind et al. (2019):

“Education outside the classroom (EOTC) can be characterised as a compulsory curriculum-based programme which is described as a holistic, school-based and pupil-centred strategy that can advance learning, physical activity, social relations, school motivation, and mental health involving all senses” (p. 599).

This characterization synthesizes several aspects that anticipate the literature review conducted. First, EOTC is understood as a pedagogical approach that leverages the environment to develop, apply, and connect curricular objectives (see Table 1). Second, various studies demonstrate the multiple benefits of this approach, including increased student agency, participation, motivation, and engagement, as well as benefits in social relationships, physical activity, and mental health (see Table 2 in the results section).

Table 1. Some Definitions of "Education Outside the Classroom"

Definition (reference)
“Education outside the classroom (EOTC) is characterised as a teaching method in which teachers make use of the local environment as well as places distant from schools when teaching specific school subjects” (Jorring et al., 2020, p. 414).
“It can broadly be defined as relocating standard curriculum teaching to places outside the buildings and walls of the schools for a single or a few days per week as a supplement to indoor classroom teaching. Places used in EotC include forests, school gardens, and museums” (Bolling et al., 2019, p. 210).
“Education outside the classroom (EOTC) offers students an opportunity to experience new and enriched learning activities and contexts, to take greater responsibility for their learning, and to connect more deeply with their local places and communities” (Watson et al., 2020, p. 25).

Indeed, there is extensive literature on informal learning, place-based learning, place-conscious education, community-oriented curriculum, open schooling, or forms of outdoor learning such as in residential centres, field studies, forest schools, outdoor

adventures, or play in the outdoors (Georgakis & Light, 2010; Gilbertson et al., 2023; Langran & DeWitt, 2020; Tolbert & Theobald, 2006).

Despite the differences and peculiarities of these various approaches, they share a core element with EOtC, namely: the intention to contextualize educational practice by linking curricular content and competencies, as well as pedagogical teaching methods, with the opportunities, contexts, and situations provided by the environment. This facilitates the establishment of collaborative relationships between different educational agents (the school) and the environment (services, institutions, community spaces). Additionally, the local environment and context allow for the application, extension, and understanding of theoretical ideas in their concrete and situated practice outside the school context (Milne et al., 2024). Furthermore, they help illustrate the idea that learning not only occurs throughout life but also across its breadth (life-wide learning), as Barron (2006, p. 195) has characterized and defined as “learning ecologies”:

“A learning ecology is defined as the set of contexts found in physical or virtual spaces that provide opportunities for learning. Each context is comprised of a unique configuration of activities, material resources, relationships, and the interactions that emerge from them”.

From this perspective, learning is conceived as a process of biographical construction resulting from participation in various situations, contexts, and sociocultural practices (Esteban-Guitart & Gee, 2024). This expanded view involves recognizing the potential educational nature of the environment, not only as a "pedagogical resource" but also as an "agent" of teaching and learning (Collet-Sabé, 2020).

Within this framework, EOtC contributes to enriching these particular "learning ecologies" by incorporating into school teaching and learning processes situations, events, and problems situated in real-life contexts such as a scientific centre, a museum, a zoo, or a natural park. This potentially expands both social capital (a network of interpersonal and intergroup relationships) and cultural capital (knowledge, skills, and advantages that facilitate personal development and promotion within society) through the creation of "socio-educational ecosystems," that is, a network of formal, non-formal, and/or informal agents and contexts that participate in the co-design, implementation, and evaluation of an educational project (Boned et al., 2024). This involves creating relationships based on mutual trust, cooperation, and co-responsibility between the school and the environment (Civís & Díaz-Gibson, 2021).

In any case, ecological perspectives in human development and education, as well as sociocultural approaches, among other perspectives, have emphasized the need to recognize different times, spaces, and social, educational, and community agents as learning opportunities in a holistic and broad vision of the educational phenomenon that extends beyond the boundaries of the school context (Esteban-Guitart et al., 2018; Jornet & Damsa, 2021; Damsa et al., 2024). This represents a dual break from the traditional "encapsulation" of education within the school setting. First, it involves expanding the physical space to provide pedagogical coverage to contexts and situations beyond the classroom boundaries. Second, it involves enriching the teaching staff through the incorporation of other social and community agents, such as a particular scientist, artist, or politician.

How was the literature review carried out?

We conducted a literature search in the Education Resources Information Center (ERIC), an authoritative database of indexed and full-text education literature and resources sponsored by the Institute of Education Sciences of the U.S. Department of Education. The search was conducted using the keyword “Education Outside the Classroom” and revealed 29 peer-reviewed results (February 15, 2024). We excluded 14 studies which did not cover in EOTC particular, or because they were focused on digital resources and practices (i.e., Mixed Reality Immersive Learning, Mobile Learning). Therefore, 15 studies were included that explicitly investigated students’ and/or teachers’ experiences with EOTC (see Figure 1).

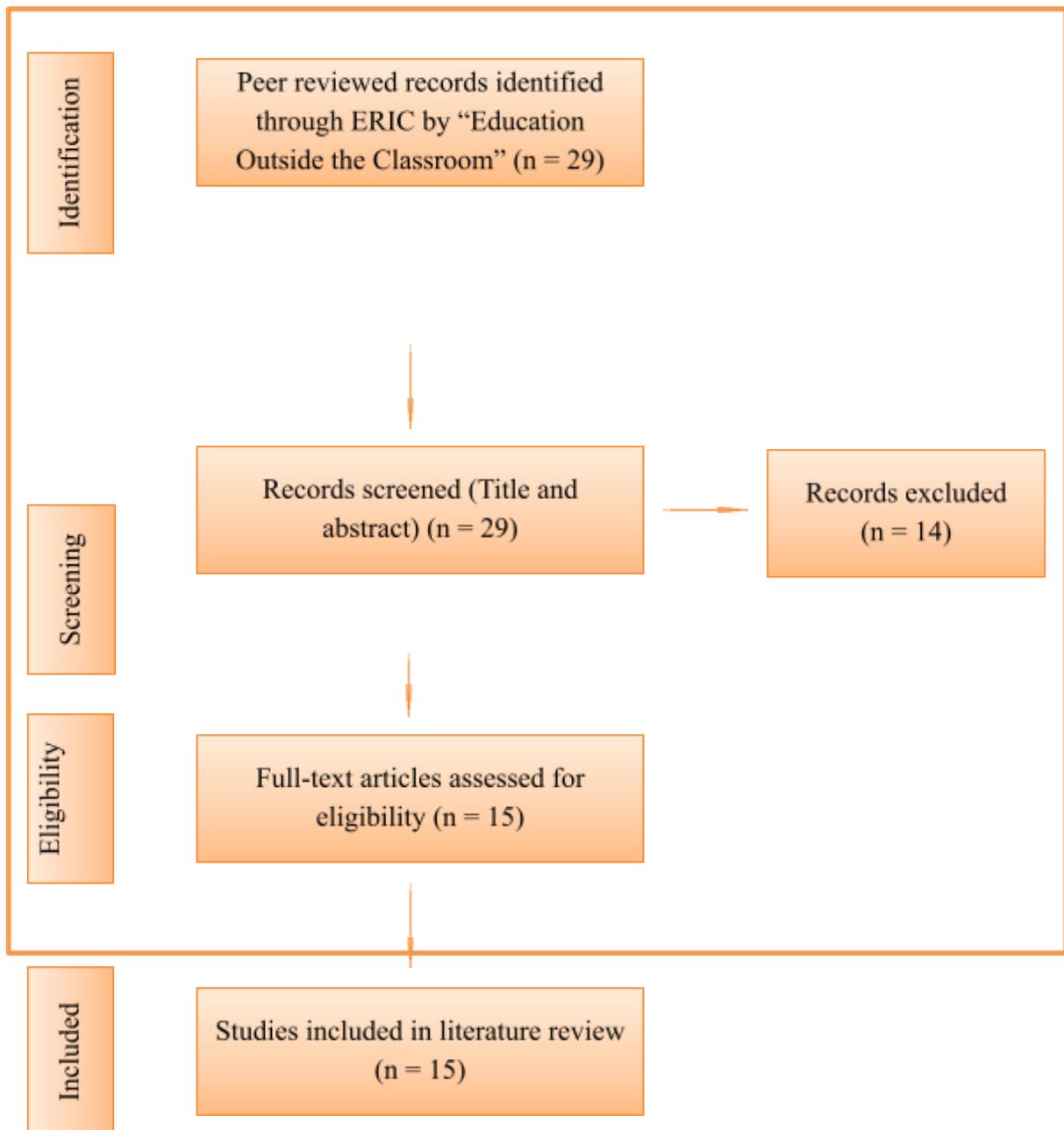


Figure 1. PRISMA flow diagram followed by the current literature review on “Education Outside the Classroom” in ERIC (searched February 15, 2024)

What did the literature review show us?

Of the 15 studies identified, 13 correspond to empirical studies, and only 2 are essays or theoretical developments. The majority of these studies are based in Denmark, with 5 studies, followed by the USA, with 4 studies, Aotearoa New Zealand, with 3, and finally 1 study each from Germany, Russia, and Australia. These are recent studies, as more than half of them were published after 2019 (see Figure 2).



Figure 2. Number of published works by year of publication

According to the review conducted, Denmark, the USA, and New Zealand stand out in their implementation of EOtC. In particular, Denmark and New Zealand have notably incorporated EOtC into their educational legislation in recent decades (Danish Ministry of Education, 2014; Danish Outdoor Council, 2006; Ministry of Education, 2007, 2016).

In Denmark, the Ministry of Education establishes targets for each subject in the Danish school system (Jorring et al., 2020). Local administrations and school leadership determine how to meet these targets. However, the teacher is responsible for choosing the teaching methodology, with the localization of teaching in external spaces being one of the strategies used (Bolling et al., 2019). Notably, since 2000, there has been a regular increase in teaching sessions conducted outside the school, known as “Udeskole”, defined as “education outside the school buildings on a weekly or biweekly basis in natural or cultural contexts. In Denmark, 19.4% of all public, independent, and private schools had one or more classes

practising “Udeskole”, in 2014” (Mygind et al., 2019, p. 560). Indeed, outdoor education or outdoor recreation is widely practised in Denmark, Norway, and Sweden, commonly referred to as “Friluftsliv” (which means “free/open-air life”) (Bentsen et al., 2009). However, “Udeskole” does not exclusively refer to a teaching method conducted “outdoors” but rather to a movement that seeks to redefine schooling, as well as an approach to how education should be conceived, extending as a social, economic, political, and geographical phenomenon (Baerenholdt & Hald, 2022). Bentsen et al. (2009) define it as follows:

“Udeskole has its target group of school children aged 7–16, and is characterised by the fact that compulsory educational activities take place outside the walls/buildings of the school and are done on a regular basis (i.e. a day every or every other week) and can take place in nature, local communities, factories, farms etc. (Jordet 2007, 1998).

Examples of teachers’ and children’s “udeskole” activities could be work within specific subjects and curriculum areas, e.g. mathematics by measuring the height and volume of trees, language by writing poems in and about nature, or history or religion by visiting historically significant places etc., but are very often also cross-disciplinary and cross-curricular activities” (p. 30).

In the case of New Zealand, EOtC appears as a generic term to describe, according to the Department of Education, a teaching and curriculum-based learning approach that incorporates spaces such as museums or Marae (Maori spaces used for certain ceremonies and social events) (North et al., 2023; Watson et al., 2020).

In any case, beyond the implementation and development in specific contexts, this literature review aims to address the following questions:

- What teaching strategies or methodologies are used in EOtC experiences?
- What impact do they have according to the experiences of teachers and students?
- What challenges and obstacles are suggested for implementing EOtC interventions?

Following these three questions, we have divided the results into three subsections to highlight some of the most significant aspects of the reviewed literature.

Teaching strategies used

EOtC often involves child-led approaches to experimentation, problem-solving, peer collaboration and group cooperation, physical activity, games and play conducted both in urban cultural settings and green areas mostly around “real-world” problems/projects (Bolling et al., 2019; Jorring et al., 2020). For example, Milne et al. (2024) describe the GeoCamp experience in New Zealand, a two-week program for students aged 10 to 13, guided by a team of Earth scientists. Specifically, about 4-5 scientists accompanied the group on the three field trips, maintaining a ratio of 1:7 or 1:8, which facilitated work in small discussion groups. The program consists of observing, interpreting these observations, and

seeking solutions to current problems as well as those that might arise in the future. It is carried out in the Wairarapa region of New Zealand, centred around the theme of “Environmental Change”. For each of the field trips, three phases were implemented. First, preparatory tasks for the visit (on days 1, 3, and 5). Second, strategies for conducting the visit, such as observation techniques. Finally, activities to consolidate and clarify the learning achieved (days 3, 5, and 7). For example, in relation to the visit to Castlepoint Beach (day 6), the day before, students familiarized themselves with the location and its associated aspects. The focus of the visit was on how stones tell the story of ocean worlds, thus relevant language connected to this was introduced. The day of the visit began with an explanation of the site. Then, various tasks were carried out, such as observing and drawing the shell cliffs surrounding the lagoon. The scientists, on the other hand, explained how debris can become fossilized and buried over time, and later exposed through erosion by wind and seawater. This explained how Castlepoint Beach was formed. This allowed further work on aspects such as carbon cycle activities or changes over different time scales.

On the last day, day 11, on a Saturday morning, a presentation of what was learnt and work done during the various sessions was held for families, friends, and community members.

McCann (2021) describes how Nokomis Regional High School (Newport, United States of America) combines Education Outside the Classroom (EOtC) with project-based learning and interdisciplinary experiential learning. In this context, teachers from various fields and disciplines co-design pedagogical activities together in an integrated project. For example, students investigated sustainability efforts in their community through visits and research questions developed in social studies, while also writing their essays for English class. A teacher specializing in a sustainable agriculture method (which uses aquaculture to grow and produce food) introduced alternative farming techniques into the project.

In fact, EOtC incorporates elements related to hands-on approaches and experiments (i.e., how to do something to solve a specific problem), which requires students to activate prior knowledge and connect learning inside and outside the school context. Specifically, Hartmeyer et al. (2017) investigated the "Personal Meaning Mapping" (PMM) method to explore the integration of out-of-classroom teaching in formal science education. This method serves as a tool to identify knowledge before and after an out-of-classroom teaching session, whether in an aquarium, botanical garden, science centre, museum, or zoo. It is based on concept mapping that represents ideas or knowledge about a specific topic, as well as interviews to explore learning in informal learning contexts. In this case, science classes were conducted at a science centre in Copenhagen called the “Experimentarium” and in an urban green space in a city suburb. Students were given a sheet of paper with keywords related to the classes in these contexts, such as energy and electricity, bridges and construction, and the water cycle. Students were asked to note down anything they learned from the classes related to these topics, as well as to develop their PMM. After the out-of-classroom lessons, these maps were returned to the students, who were required to make additions and changes in colour. Finally, a 20-minute interview was conducted to explore the learning achieved. In this

experience, inquiry-based teaching was the most commonly used methodology; however, lectures (instruction) and guided tours by science centre staff and city council workers were also employed.

However, the literature reviewed does not provide an in-depth description of the specific teaching methodologies and pedagogical resources used in EOtC, beyond the three experiences briefly described above. Instead, much of the literature focuses on analyzing the impact of EOtC, a topic that we will highlight next.

Impact of EOtC

In general, studies show benefits regarding the creation and consolidation of school learning. For example, Milne et al. (2024) evaluated the impact of the previously described GeoCamp program in New Zealand. They examined the attitude changes of 23 students toward science and scientists. The results indicated a shift from stereotypical conceptions (e.g., eccentric chemists in lab coats) to more realistic understandings (e.g., not being eccentric, some being females, some working outdoors, and being collaborative), among other aspects that confirmed a richer understanding of both the figure of the scientist and specific scientific topics addressed in the intervention program. Along similar lines, Mayer et al. (2019) documented an increase in research skills (e.g., thinking like a scientist, problem-solving, identifying limitations, making observations, using statistical analysis, giving oral presentations, and working collaboratively, among other aspects), as well as greater self-efficacy (increased confidence in one's abilities to solve problems and meet specific learning tasks and objectives) in 60 students who participated in an EOtC program on poverty analysis in the United States (e.g., understanding the causes and consequences of poverty, conducting interviews and field studies, analyzing quantitative and qualitative data, and delivering an oral presentation on the results).

This is due, according to North et al. (2023), to the novelty of the out-of-classroom situation, which contrasts with familiar or school routines. Specifically, the authors highlight the notion of "newness," associated with unfamiliarity, strangeness, uncertainty, and emergence, linked to EOtC. This translates into positive emotions, engagement, and understanding of the world and oneself, such as new possibilities for projecting the future by experiencing professional contexts in situ. According to Ivaniushina & Alexandrov (2015), these activities promote the development of self-esteem, a sense of community, and school satisfaction and engagement.

One of the most prominent studies in the literature on the impact of EOtC is the TEACHOUT project conducted in Denmark. It was a quasi-experimental intervention involving 28 "udeskole" classes as the intervention group and 20 parallel schools, not using "udeskole," as the control group. The main objective was to document the influence of "udeskole" on children's physical activity, social relationships, school motivation, and psychosocial well-being (Bentsen et al., 2009; Bolling et al., 2019; Jorring et al., 2020; Mygind et al., 2019).

It is concluded that there is an improvement in academic learning, as well as life skills, and student-teacher relationships. Udeskole seems to introduce a more informal relational space, which facilitates better understanding and relationships both among students and between students and teachers. Teachers perceive the creation of new social relationships and increased physical activity.

Table 2. Impact of EOtC

Support, development, and consolidation of school learning.
Development of life skills.
Research skills.
Greater school satisfaction and engagement.
Better understanding of the world.
Civic engagement.
Richer understanding of oneself (increased self-esteem, self-efficacy).
Increased physical activity.
Better regulation of biological stress-reactivity.
Positive impact on personal and social well-being (e.g., social relationships, group work).
Negative associations with hyperactivity-inattention.
Negative association with peer problems in pupils.
Improved student-student and student-teacher relationships.
More situated and experiential learning situations.
More active pedagogical strategies (e.g., experimentation, problem-solving, peer collaboration).
Addressing more authentic problems and projects due to contextualization.
Greater collaboration between teachers and other professionals.

However, the benefits of complementing the "hands-on" activities characteristic of EOtC with traditional school activities are also highlighted. These are intensive experiences that involve prior work at school, activities during the visit, and follow-up work again at school, all centred around a real-world problem or issue. This challenge is addressed collectively by the class group, with the mediation of the teacher and other agents involved in the activity. In fact, this improvement in academic learning, as well as personal and social well-being, is explained, according to Jorring et al. (2020), by the recognition students receive in both formal and informal situations, as well as their belonging to a social group where their participation and engagement are facilitated and acknowledged. Such recognition is considered a prerequisite for both academic performance and the development of social well-being, due to an enhanced sense of belonging to the social and academic community in the classroom. According to the study by Bolling et al. (2019), pupils regularly exposed to EOtC in 16 Danish public schools showed the greatest improvement in prosocial behaviour, with negative associations with hyperactivity-inattention and peer problems, particularly among students from low socioeconomic backgrounds.

The authors particularly emphasize five aspects of Education Outside the Classroom (EOtC) that are linked to pupils' social and academic well-being in school: i) It promotes skills beyond those typically associated with schoolwork. ii) It can enhance distraction due to the availability of multiple stimuli, which requires processes of attention and autonomy. iii) It is more enjoyable and varied compared to school instruction which is more focused on content delivery. iv) It involves relay races and competitions. v) It fosters shared activities related to group work.

As concluded by Jorring et al. (2020, p. 423):

“EOtC can promote social well-being for pupils with lower academic achievement by offering the opportunity to bring other skills into play in a learning context. It's more enjoyable. Students are exposed to non-school-related contexts and pedagogies. Groups may contribute to social well-being through joint activities that provide social recognition. This may influence the pupils' academic well-being.”

In summary, the TEACHOUT project demonstrates that exposure to 2-7 hours of EOtC per week improves psychosocial well-being and academic performance (Bolling et al., 2019). EOtC involves peer collaboration, play and exploration, as well as work in informal settings that are more conducive to establishing positive social relationships. It is also associated with the promotion of physical activity, as well as enhancing children's attention (Bolling et al., 2019; Jorring et al., 2020; Mygind et al., 2019).

Similarly, in the context of New Zealand, EOtC has been linked to improved learning and school engagement (Milne et al., 2024; Watson et al., 2020). The most significant study conducted, “Education Outside the Classroom in Aotearoa New Zealand: A Comprehensive National Study,” concludes that EOtC is “extremely” or “very important” for schools, offering experiences difficult to achieve within the more traditional classroom framework. The connection of learning to real-life situations enhances the validity and visibility of the learning carried out in school and is also considered more authentic than a simple exam. In conclusion, “the research found that EOtC offers a rich learning context for schools across all curriculum areas. EOtC experiences provide alternative learning environments, social interactions, and pedagogies that are highly valued by staff and students in Aotearoa New Zealand” (Watson et al., 2020, p. 29).

The study by Dettweiler et al. (2023), through the analysis of biological markers such as cortisol levels, as well as techniques like structural magnetic resonance imaging, demonstrates the impact of an intervention consisting of one day per week of forest classes during a school year. Classes outside the school involved greater physical activity, as well as better regulation of biological stress reactivity and lower cortisol levels associated with increased exposure to the natural environment. “Our results support the idea that autonomy-supportive teaching fosters cerebral maturation and that EOtC taking place in natural green environments such as forests can have a positive effect on biological stress regulation systems” (Dettweiler et al., 2023, p. 152).

Challenges of EOtC

The literature reviewed has identified various challenges and difficulties associated with the development and implementation of Education Outside the Classroom (EOtC) (Bentsen et al., 2009; Hartmeyer et al., 2017; Majerus & Taylor, 2020; Mygiand et al., 2019; Watson et al., 2020). These aspects can be grouped into psychological, social, geographical, material, and political barriers, challenges, or resources necessary for the full realization of EOtC (see Figure 3).

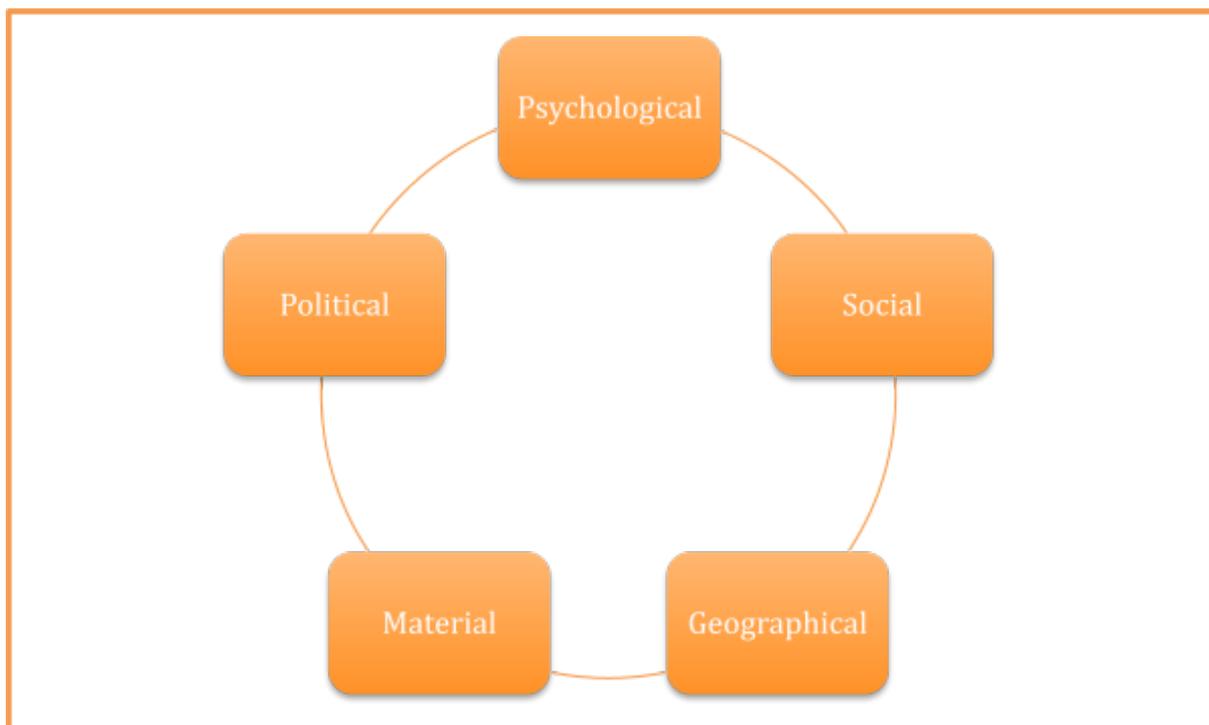


Figure 3. EOtC: Barriers, challenges and resources needed

At the psychological level, students need to establish connections between learning experiences both inside and outside of school. This involves activating and mobilizing prior knowledge, linking it with new knowledge, as well as relating learning carried out in different situations and contexts. This process might also involve identifying misunderstandings or stereotypes that may exist in certain areas, such as those related to scientists and science (Hartmeyer et al., 2017). Moreover, the motivation, engagement, and positive attitude toward school or the specific out-of-school context where the EOtC experience takes place may not always transfer or remain consistent. Research seems to indicate a more positive and favourable evaluation of EOtC by students, as well as by teachers, which may differ significantly from the perception, motivation, and engagement once they return to the school context (Watson et al., 2020). However, it seems that it is precisely the combination of school instruction with the out-of-classroom experience that facilitates learning processes, school engagement, improved social relationships, and overall physical activity. In this regard, Besten et al. (2019, p. 42) conclude that “outdoor teaching and learning and more mainstream

schooling can work together and complement each other.” The authors draw on studies on the different uses of verbal language in school and outside of it (more descriptive in the school context and more inquiring and explorative outdoors) to conclude that a precise combination of both can enrich the learning experience, as well as recognize the diverse capabilities of the school population, both formal and informal.

The active and participatory nature of the required methodologies (i.e., experimentation, problem-solving, group cooperation, project-based learning, community-based learning) requires training for the teaching staff, as well as the acquisition of specific research skills, for example, by the students. This requires time to prepare lessons and activities, which are more demanding than instruction using traditional methods of knowledge and content transmission (Mygind et al., 2019; Watson et al., 2020). Additionally, the teacher's role in organizing, facilitating, and promoting learning becomes crucial, as does group work among students (Bentsen et al., 2009). A teaching team enriched by the participation of other professionals (e.g., scientists) must establish relationships of respect, empathy, and collaboration. They may request, for example, administrative support to facilitate regular meetings with teachers during the school day (Majerus & Taylor, 2020). Particularly in projects that involve co-design, time and space are required for this process.

Regarding geographical barriers, challenges range from issues related to local weather conditions (Mygind et al., 2019) to difficulties in accessing these locations, which also relates to the issue of resources, as it is necessary to ensure transportation to the forest, park, museum, library, science centre, zoo, or other venues where teaching and learning activities take place.

In fact, at the material level, greater funding is required to develop this type of experience. In some cases, families contribute through donations; however, this can limit the frequency of EOtC activities and may also prevent certain families from being able to contribute financially (Watson et al., 2020).

At the political level, the establishment of partnerships between schools and various entities and centres in their surroundings requires collaborative strategies with local governments (e.g., municipalities), especially in the case of public institutions (schools and services) (Bentsen et al., 2009). Additionally, legislation and regulatory frameworks, such as the Udeskole in the Danish context, are necessary.

Some critical considerations of EOtC

We aimed to review the available literature on Education Outside the Classroom (EOtC) with three objectives in mind. First, to identify and describe the pedagogical strategies employed. Second, to assess the impact of these strategies. Finally, to identify some barriers, challenges, and/or difficulties in the implementation of EOtC. To this end, 15 peer-reviewed works were

identified through the ERIC database, tagged as "Education Outside the Classroom," most of which are empirical studies focused on evaluating the impact of EOtC.

Regarding the first objective, although few articles describe curricular and pedagogical aspects in depth, there is a notable use of active teaching and learning methodologies, such as project-based learning, place-based curriculum, or community-based learning. These approaches emphasize experimentation, teamwork, and problem-solving in real-world situations, following a pedagogical design structured in three phases. The first phase involves preparing for the field trip or off-campus visit and introducing key concepts. The second phase is dedicated to fieldwork, where teaching and learning processes take place outside the school environment. Finally, the third phase focuses on reviewing the learning outcomes.

This leads to a critical consideration of the term "out of schooling" itself, as educational interventions involve the development and application of concepts worked on in the school context, as well as activities carried out within the educational institution. The natural environment offers opportunities and qualities that can complement the characteristics of the school setting. Indeed, one could argue that the articulation, connection, and integration of in-school and out-of-school learning experiences enhance students' competencies (Bolling et al., 2019). This suggests a broad view that incorporates a processual and transactional perspective, where both inside and outside the classroom form part of a single educational and learning process. This perspective recognizes all contexts of life and activity in which the learner participates (Barron, 2006; Esteban-Guitart, 2016; Esteban-Guitart & Gee, 2024). In this sense, inspired by the "Scuola Diffusa" approach initially developed in Reggio Emilia, Italy, we suggest notions that incorporate both in-classroom and out-of-classroom work, such as the concept of "Widespread Education" (Esteban-Guitart et al., 2024; Iglesias et al., in press), aligned with the notion of a socio-educational ecosystem described earlier.

Concerning the second objective, where most of the reported studies prevail, various benefits of the EOtC approach are highlighted: the development of academic learning, life skills, research skills; increased school satisfaction and engagement; better understanding of the world and civic engagement; a richer understanding of oneself (e.g., higher self-esteem, greater self-efficacy); improved regulation of biological stress-reactivity; increased physical activity; positive impact on personal and social well-being (e.g., enhanced social relationships); better relationships between students and between students and teachers; a negative association with hyperactivity-inattention and peer problems in pupils; more situated and experiential learning opportunities; active teaching and learning strategies; addressing more authentic and contextualized problems and projects; and, finally, greater collaboration and enrichment of the faculty through the co-teaching role of other professionals who complement the work of teachers. This leads us to recommend the implementation of policies and actions that facilitate EOtC, as in the case of Udeskole in Denmark (Danish Ministry of Education, 2014; Danish Outdoor Council, 2006) or Aotearoa New Zealand (Ministry of Education, 2016, 2017), due to the numerous benefits documented in the literature.

Finally, regarding the difficulties, challenges, or barriers, we have identified a series of challenges related to its development and implementation at the psychological (connecting meaningful learning experiences inside and outside the school context), social (training, teamwork, co-design), geographical (access to off-campus sites), material (transportation, training, time, etc.), and political levels (educational laws that facilitate its execution, as well as support from local and national governments).

Additionally, an underlying aspect of much of the reviewed work is the need to reconsider not only the pedagogical practice itself, extended to natural contexts outside the classroom, but also the broader aims and mission of school and education. Beyond a purely market-driven view focused on workforce integration, the school is conceived as a democratic context aimed at fostering critical competencies for understanding the world and oneself. In fact, the reviewed experiences revolve around what Husen (2014) refers to as "the common third," which is something that emerges as a result of a shared task carried out between teachers and students, also involving other social and community agents, concerning shared objectives centred around real-world problems, which require cooperation and collaboration to be optimally addressed. These mutual interrelations among teachers, students, and professionals make it possible to share the experience concerning a shared task that requires the application of curricular content and competencies, as well as experimentation and teamwork. This brings us to the second critical consideration we want to highlight here: the recognition of the pedagogical dimension of the environment, that is, the expansion of the educational sense and responsibility beyond the school as the sole agent responsible for it. In this regard, families, municipalities, social entities, leisure organizations, and scientific associations should be recognized and expanded in their pedagogical dimension. Therefore, education should be conceived as a "common third", something that social, educational, and community agents develop together through processes of co-design, experimentation, cooperative work, documentation, discussion, and deliberation around important and relevant problems, such as environmental sustainability and the challenges derived from it, in addition to understanding its causes and consequences.

In summary, the experiences identified in this literature review show multiple benefits associated with collective work that can be described as the expansion of cycles of collaboration and critical thinking (Esteban-Guitart et al., 2023). For us, this involves deepening the relationships between school and the surrounding environment to incorporate what is done outside of it, not as a mere occasional visit to a museum, park, or zoo, but as an agent with which to articulate the processes involved in the educational act: identifying learning needs and objectives, co-designing the educational project, implementing it, as well as participatory, reflective, and critical evaluation of its impact, benefits and areas for improvement.

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