HOW TO ENCOURAGE CHILDREN’S CONNECTEDNESS TO NATURE BY OUTDOOR LEARNING OF CHILDREN IN CROATIAN AND SLOVENIAN SCHOOLS?

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Abstract

In Croatia, the Curricular reform “School for Life”, from the school year 2019/2020 has become compulsory in all elementary schools. New subject curricula have been presented and, with them, a new approach(es) to learning and teaching. The emphasis has been placed on the student as an active learner and the inquiry-based learning approach as a new form of active learning. This new approach is a vital part of the subject “Nature and Society.” In Slovenia, the last elementary school curriculum reform was introduced in 2011 with the inquiry-based learning approach being implemented in the following subjects: “Environmental Studies,” “Science and Technology,” and “Social Studies.” Various forms of learning and teaching using STEM (Science Technology Engineering and Mathematics) content and ICT (Information and Communication Technology) might encourage children to spend time outdoors. Children’s outdoor environmental activities are closely linked to the curricular content of the STEM field. Through ICT and inquiry-based forms of learning and teaching, educational content can be made more engaging and enhance children’s connectedness with nature. A lot of research has already suggested a deficiency in the time children spend in nature. There are many developmental problems connected with cognitive development, mental health, psychomotor (in)ability, lack of physical activity, empathy, and emotional connections with nature found in today's children, especially those living in urban settings [1].

The primary purpose of this paper is to point out how the inquiry-based learning (IBL) and other approaches could be a good foundation for encouraging learning and teaching outdoors, that is, in nature/environment, on school playgrounds, or natural spaces. Available research indicates that STEM content, that is, learning and teaching about nature and society through group activities and socialization forms of work involving peer groups can influence and encourage school-age children to connect with nature to a greater extent [2]. Also, numerous studies suggest that learning and teaching should be learner-centred, experimental, and action-oriented; in other words, it should be based on practical activities. Also, the developmental stage of students younger than 11 years old is an optimal period for the development of positive attitudes towards the environment, environmental behaviors, and activism as future responsible citizens of society.

In this paper, we present insights into the relationship between children’s inquiry-based outdoor learning, subject curricula, environmental content, STEM content, ICT, and learning. We emphasize the importance of structuring children’s activities through a variety of content, forms, and methods of learning and teaching, and especially their contribution to children’s optimal growth and development in fostering a greater connection with nature. In addition, one of the tasks of this paper is to analyze and compare Croatian and Slovenian curricula with regards to the positioning and improving of children’s inquiry-based learning and outdoor activities. We also attempt to provide an answer to the question how to encourage children’s connectedness with nature through their outdoor learning in (Croatian and Slovenian) school.

Keywords: connectedness with nature, ICT, Inquiry-based learning approach, outdoors, STEM.

1 INTRODUCTION

Connectedness with nature may be defined as a feeling or experience, empathy or compassion, or love for nature, animals, and plants. It is often thought of as a measure by which individual emotional or affective attachment to nature is measured/assessed [3], but also as a cognitive connection, or beliefs about nature [4]. Numerous studies confirm the importance of connectedness with nature as a prerequisite/postulation for environmental attitudes, beliefs, behavior, and it is closely linked to healthy growth and development of children [5]. In addition, research indicates that greater exposure to nature
increases interest and motivation and promotes learning. As the authors [6] emphasize, “It is time to take nature seriously as a resource for learning – particularly for students not effectively reached by traditional instruction” [6, 6]. In this paper, we focus specifically on connectedness with nature of school-age children as part of the formal learning and teaching process. Numerous studies confirm that it is possible to encourage a more significant connectedness with nature even through short educational programs [7]. Therefore, curricular contents and methods of children’s active learning are highly important. In this paper, we will try to answer the questions about how and in what way to stimulate a more significant connection between children and nature through active learning methods such as IBL (Inquiry-based Learning), i.e., through a research approach and curricular contents. By analyzing the curricula, especially the STEM curricula, and with approaches such as the IBL that put the student in the role of “an active researcher,” it is possible to foster greater connectedness between children and nature. As [8] emphasize, various methodological studies have shown that the best results in science are obtained by those students who use the research method and apply scientific methods just like scientists. Students thereby acquire concepts in the natural sciences starting from making assumptions through independent observation, research, and recording changes until they have reached a conclusion. Such an approach presents the scientific method as a critical tool for achieving higher levels of science literacy [9], but also serves as a foundation for a more significant connectedness with nature. In addition, the content complexity of natural sciences offers numerous opportunities for the realization of research activities in nature. According to [10], who specifically address environmental biophilia stimulation, early childhood research activities represent a significant foundation for students’ development as active researchers and the development of scientific literacy. “Exploring the nearby world and learning your place in it should be the primary objective of the ‘bonding with the earth stage’ in environmental education (EE)/education for sustainable development (ESD). This includes opportunities to explore and experience the surrounding wild and semi-wild natural world found in children’s neighbourhoods and communities” (10, 5]. According to [11, 14], “In conservation education programs, there are several key principles that can enhance and promote the effectiveness of this contact between children and nature, for example, focusing on the local environment; involving families, friends, and communities; providing opportunities to socialize and have fun; encouraging child-initiated, open-ended, inquiry-based learning; and being age-appropriate (matching children’s ability) to understand and explore the world.” However, in addition to educational programs that specifically promote EE/ESD, there are numerous opportunities in national subject curricula, especially in STEM subjects, which we will present in this paper.

2 HOW TO ENCOURAGE CHILDREN’S CONNECTEDNESS WITH NATURE THROUGH CHILDREN’S OUTDOOR LEARNING IN CROATIAN AND SLOVENIAN SCHOOLS?

In order to answer the question from the title of our paper, in the following sections, we will outline, with a brief analysis of the curricula, possible guidelines and suggestions for improving connectedness with nature in the STEM field, especially with regards to the exclusively natural-scientific area. As research has already shown, approaches such as the IBL are the highest quality pathway for these processes. Accordingly, model that presents the relationship(s) between concepts of connectedness with nature, IBL (Inquiry-based learning), STEM (Science Technology Engineering and Mathematics) curriculum, ICT (Information and Communication Technology) tools and environmental education (EE)/education for sustainable development (ESD) can be graphically depicted (Figure 1) as follows:
The relationships between the concepts point to important guidelines in thinking about work practices and realizing learning outcomes in a way that can foster a more meaningful connectedness with nature. There are direct and indirect links between the elements in the model that support a greater connectedness to/with nature. The potential of ICT as a resource is reflected in the forms of data collection and documentation, while it also encourages children to spend time in nature. Furthermore, it is part of the curriculum/s concerned with the realization of the learning outcomes, whereby it also facilitates research and the use of learning methods that support the research approach. Although there is a lack of research on how ICT in the area of EE/ESD can foster learning and teaching, there are numerous tools and applications that can foster research approaches to learning and teaching processes in schools, especially in the environment. “EE and ICT share the potential to support critical and action-oriented problem-based instructional practices. Moreover, as ICT tools and EE both allow for innovation in the education field, EE thus seems a promising setting in which to integrate such tools” [12, 13]. Environmental research is related to the STEM curriculum content, i.e., the realization of learning outcomes, including the IBL. On this basis, the realization of the learning outcomes of both curricula, which we will present below, indicates that it is essential to realize as much STEM content as possible outside the classroom, in the immediate environment.

3 THE NATIONAL CURRICULUM IN CROATIA AND SCIENCE LITERACY

Founded in the 1990s by the OECD (Organisation for Economic Co-operation and Development), the Program for International Student Assessment (PISA) represents unique educational research that aims to collect internationally comparable data on the knowledge and skills of fifteen-year-old students. Since 2000, the Republic of Croatia has been a continuous participant in PISA surveys; it is also participating in this year’s cycle. The need to redefine national curricula in Croatia is based, among other things, on reasons that include their update and alignment with European curricula but is also influenced by the results of PISA research in which Croatian students have been achieving below-average results. The new National Curriculum for Elementary Schools, i.e., the new subject curricula and cross-curricular topics, was developed as part of a large national program called Wholesome Curricular Reform. The experimental phase of implementing the new curriculum/ia, under the title “School for Life”, in primary and secondary schools began in the fall of 2018/2019, while the frontal implementation began in the school year 2019/2020. It is expected that the new curricula, which have been developed for all subjects and seven cross-curricular topics (Personal and social development, Learning how to learn, Civic education, Health, Entrepreneurship, Use of information and communication technology, and Sustainable development), will be fully implemented by the school year 2022/2023. Changes in subject curricula are based on several features, one of them being the competency approach and the fact that subject curricula rely on prescribed learning outcomes by grade level. Curricula of cross-curricular topics rely on educational expectations, which impact the construction of learning outcomes, with their realization being expected in each education cycle. In January 2019, the Ministry prescribed the Curriculum for the compulsory school subject “Nature and Society,” which is taught only in the first four grades of elementary school. The research approach is not particularly emphasized or described in the “Old Curriculum” dating back to 2006, which is still in force in subjects not covered by the reform. This “Old Curriculum” is based on prescribed teaching topics/content and expected achievements for each topic by grade level. The Curriculum description only indicates possible forms of work with the students, which include, but are not limited to, extracurricular teaching, EE, ESD, etc. However, teachers methodically design learning and teaching processes at their own discretion. The results of the work based on the “Old Curriculum” are well known. According to the results of the PISA research, especially in the field of science literacy, Croatian students have been achieving below average results for many years. The Executive Summary of PISA 2018: RESULTS, INSIGHTS, AND IMPLICATIONS - International Student Knowledge and Skills Survey states: “In the twelve-year period (PISA 2006-PISA 2018), a negative trend was observed in the achievement of Croatian students in science literacy. Croatia’s average score decreased by 5 points over a three-year period. On the science literacy scale, every fourth Croatian student has not reached the basic level (level 2), i.e., slightly more than a quarter of boys (27%) and slightly less than a quarter of girls (24%). These students do not have the basic natural scientific skills needed to participate fully and actively in society. The proportion of students below the basic level of science literacy increased by as much as 8.4% between 2006 and 2018. There are 3.6% of Croatian students at high levels (levels 5 and 6), which is almost half of the OECD average. The share of high-level Croatian students in science
literacy significantly decreased by 1.5% between 2006 and 2018” [14, 4]. In contrast to these results and compared to the effects of the Slovenian National Curriculum and the results obtained in the field of science literacy, Slovenian students achieved statistically significantly higher results in the last PISA survey in 2018. While the outcome of introducing the new Croatian Curriculum will remain unknown for many years, it is certain that the new Curriculum will be “put to the test,” including through PISA research. In other words, PISA expectations are high, especially in the field of promoting science literacy. The question is, can we already identify the content or suggest possible directions for increased encouragement of science literacy in students and, thus, a greater connectedness with nature? One such guideline is certainly the appreciation and encouragement of research approaches in the learning and teaching of natural sciences. Finally, it is important to emphasize that EE is an integral part of the Curriculum. However, another document has been intended for this specific purpose titled Curriculum of the Cross-Curricular Topic Sustainable Development. Based on this, we may conclude that the latest Curriculum for the subject “Nature and Society” should make a significant contribution to the development of science literacy, with an emphasis on research and active student learning in the environment. This endeavour should also promote a more significant connectedness with nature as a foundation for the development of science literacy.

3.1 Croatian elementary school education curriculum and connectedness with nature through outdoor learning and ICT

The new subject curriculum for “Nature and Society” in Croatia is based on four essential concepts and, when compared to the “Old Curriculum,” content differences are noticeable. There are four domains at the center of the “New Curriculum” for the subject “Nature and Society,” and the research approach is at its very center and poses a link between all domains. The first external curriculum circle highlights guidelines for encouraging different forms of thinking (problem-solving, decision making, metacognition, critical thinking, creativity), personal and social development, forms of work, and use of tools (communication, collaboration, information literacy, digital literacy, and use of technologies). The second external circle identifies all seven cross-curricular topics related to “Nature and Society,” including personal development, sustainable development, and ICT. Particularly noteworthy is the fact that there was no energy-related content in the “Old Curriculum.” The most significant and visible change is not only structural but also conceptual as well as didactic-methodical. The research approach is a domain that embraces all other domains and is emphasized as the dominant approach on which learning and teaching of subject “Nature and Society” should be based. The Curriculum guidelines further state that “Through a research approach, the student develops skills that he/she will later apply in the daily life and make relevant decisions based on critical consideration of valid evidence and arguments. The research approach contributes to the development of curiosity, creativity, observation skills, comparing, sorting, asking questions, predicting, analyzing, generalizing, evaluating, communicating, gathering information, and the like. In addition, the student learns to use a variety of information and sources of information. In this way, the student is also trained in continuous education and lifelong learning. For the students to master the learning outcomes, the teacher can choose from a variety of learning and teaching methods, such as research, problem solving, presentations, didactic games, quizzes, role-playing, drawing, concept maps, mental maps, and the like. Project and collaborative learning can be applied, and the educational process can be performed both inside and outside the classroom” [15, 2]. It is evident from this that the research approach is considered a form, tool, method of learning, teaching, and development of student competencies, not only for school but for life. At the same time, it emphasizes its connection with other subject areas, including the use of ICT; however, the Curriculum of Cross-Curricular Topics is intended for this purpose. Below, we present an example – excerpt from the Croatian Curriculum – of fostering connectedness with nature through learning and teaching in the STEM field through ICT (Table 1).
<table>
<thead>
<tr>
<th>Learning outcomes</th>
<th>Methods/activities</th>
</tr>
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<tbody>
<tr>
<td>The student compares changes in nature and describes the importance of protecting nature and personal health.</td>
<td>The student identifies and distinguishes migratory and resident birds in the immediate environment. He takes care of living beings in different conditions, such as feeding the resident birds in winter. Examples of personal behavior include the importance of maintaining personal hygiene, a healthy diet, proper posture, and carrying of the school bag, physical activity, sun protection, knowledge of the time limit for working with digital technology in order to maintain health. He describes the weather, plant growth and development, as well as his own growth and development. He connects the changes of day and night and the seasons with the changes in plant life, animals, and humans. He observes and predicts changes in the immediate environment. He cares for the maintenance of personal health and the environment in which he lives.</td>
</tr>
<tr>
<td>With guidance, the student describes and presents the results of observing nature, natural or social phenomena in the immediate environment, and consults different sources of information.</td>
<td>The student observes and describes the world around him, using his senses and measurements. He draws the observed and labels/names parts. He recognizes cause and effect relationships in the immediate environment. He raises questions related to observed changes in nature. He raises questions about natural and social phenomena. He explains what has been observed, experienced, or explored. He notices problems and suggests solutions. During learning and teaching, it is necessary to apply as much as possible the methods of active learning in which the student participates by observing and collecting data and drawing conclusions. The student follows the research-learning algorithm, asks questions, researches, creates, discusses, and evaluates. The student can present the results with a drawing, table, diagram, or sometimes just describe them, and the information sources may also be verbal, e.g., from parents or other persons. The research approach needs to be integrated into the learning and teaching process of all concepts in different ways: from research in the immediate reality, experimentation, observation, use of simulations to problematic tasks, and other ways to encourage active, exploratory, and experiential learning.</td>
</tr>
<tr>
<td>The student explains the importance of man's responsible attitude towards himself and nature.</td>
<td>For example, the student notes the importance of caring for the environment: maintaining the classroom's cleanliness and the space used, the school environment, caring for pets and houseplants, caring for the preservation and protection of national waters, etc. The student reuses waste. The students can upcycle paper independently and make various items (ornaments) from it. He can make a school compost pile depending on the school conditions, use various mobile and computer applications to measure classroom noise. Light pollution is the superfluous scattering of artificial light. It consumes unnecessary energy and adversely affects living organisms.</td>
</tr>
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</table>

This excerpt from the Croatian Curriculum clearly indicates its content structure and learning outcomes that can be realized through a range of methods, using different sources of knowledge: primarily through direct research/outdoor education and in the immediate school environment.

## 4 THE NATIONAL CURRICULUM IN SLOVENIA AND SCIENCE LITERACY

Slovenia is one of the more successful countries in international knowledge research in the field of science literacy. In the latest PISA survey conducted in 2018, Slovenian 15-year-olds ranked 13th among 55 member countries of OECD. They scored 507 points, which is above the OECD average (489 points). Of the European countries, only Estonia (530 points) and Finland (522 points) had higher achievements. The latest PISA survey results are six points lower than in 2015, with the OECD also averaging four points lower. The achievements of Slovenian students in all PISA surveys are above the OECD average, but a minor yet stable and negative trend can be observed between the years 2006 and 2018 [16]. In accordance with the Constitution of the Republic of Slovenia, basic school education is compulsory, and it is state financed. Based on the new educational laws approved in 1996, education is organized as single-structure nine-year basic schooling (integrated primary and lower secondary education). In 2011, the last curriculum reform was carried out for all elementary school subjects. Students enter primary education at the age of six and begin to know the world of
science, technology, and society within the scope of the subject “Environmental Studies” [16], which blends natural sciences with social sciences. This subject is offered during the first three years of elementary school. In the fourth and fifth grades, elementary school students deepen their science, technology, and society knowledge in two subjects “Science and Technology” and “Social Studies” [18]. Some of the learning objectives related to science, technology, and social studies are also realized within the elective subjects. The unique school system in Slovenia, which includes compulsory forms of outdoor and environmental education during the compulsory nine-year primary education, highly supports a close contact with culture and the environment. The Basic School Act, which defines the Curriculum for basic education, was adopted in 1996. According to this document, outdoor education is integrated into the National Curriculum for Primary and Lower Secondary Education, which is materialized in the “Days of Activities” and “Outdoor School.” The Curriculum defines 15 Days of Activities per year. The nine compulsory school years include three Science Days, five Sports Days, and three to four Cultural Days or Technical Days. According to the definition and objectives in the “Concept of Days of Activities” [19], Days of Activities should inspire the students to be creative, inquisitive, and show initiative. In addition, Days of Activities enable the students to observe more attentively and gain experiences, skills, and knowledge that has the potential to increase their problem-solving abilities. Clear educational goals are set for each of the four types of activities. Most schools organize Days of Activities outside the school premises, bringing the idea of outdoor lessons to fruition. Outdoor School is an activity that takes place for three or more days in a row outside the school area [21]. At first, Outdoor School was part of the Extended Curriculum for elementary Schools but, in 2011, it was integrated into the Compulsory Curriculum for Elementary Schools. By law, schools are obliged to organize at least two events during the nine-year schooling (it is recommended to organize them once at the end of each three-year cycle). Students spend several days outside the school premises and study in the cultural and natural environment. Schools provide outdoor schooling mostly at the ČSOD (Centre for School and Outdoor Education), but they can also use other Alpine, vacation, and similar student accommodation facilities. Nowadays, Slovenia has a network of 26 ČSOD centres, whereby five-day programs are implemented, and seven Day Centres offering one-day programs. All these facilities are fully state-funded (they are part of the Ministry of Education, Science, and Sport). ČSOD centres and Day centres implement place-based educational programs, which foster outdoor learning in the natural environment. In addition to achieving various content and process goals, a multi-day residency at the ČSOD also allows students to engage in socialization and independence.

4.1 Slovenian elementary school education and connectedness with nature through outdoor learning and ICT

Examples of good outdoor teaching practices in Slovenia show a wide variety of implementations, such as frequently organized lessons at the School Eco-Garden, involvement in the project Networks of Forest Kindergartens and Schools, frequent activities in forest playgrounds, the project Unusual tents (Indian tents), teaching in urban environments, and integration of the IBL [21]. Most teachers understand outdoor lessons in the broad sense – as outside the classroom. Some consider them to be out-of-school lessons (even visits to museum and other indoor facilities such as galleries, theatres, and others are considered outdoor lessons). In contrast, others see them as synonymous with lessons outside any indoor space, i.e., as lessons in open spaces, either within natural or enclosed space, in local and familiar as well as remote and unfamiliar areas. Areas of outdoor education (inside enclosed spaces) are, therefore, very diverse and include schoolyards and playgrounds, school gardens, populated areas, city streets, parks, farms, outdoor residential centres (ČSOD), zoos, botanical gardens, forests, meadows, learning trails, and mountains. Outdoor lessons are carried out with different educational goals, even during the extended stay. At the implementation level, the school teaching staff usually plans such lessons. Even though this is encouraged by the school management or is a typical and frequent type of work for the entire school collective, the planning of outdoor lessons is left to individual teachers; hence, this type of teaching may be decreasing. In Slovenia, the study of various aspects of outdoor education is gaining momentum, especially at the elementary school level. For example, a search in COBISS on April 20, 2020, using Slovenian keywords for “outdoor education” and “primary level,” rendered 155 diploma theses, 21 master theses, and one doctoral thesis. The results of the master’s theses research show that some classroom teachers are not sufficiently aware of the importance of outdoor lessons. When learning about the environment, almost half of the teachers spend only between 11% and 20% of their lessons outdoors, although the didactic recommendations in the environmental awareness curriculum emphasize that students should learn as much as possible through direct contact with the environment [22]. Similarly, Cankar [23]
emphasize that, in the first grade of elementary school, an average of one-third of all outdoor lessons on environmental cognition are taught indoors. The results of these surveys were obtained through questionnaires and interviews and reflect teachers' self-assessment. More realistic data are provided in the research by [24], where the author presents unbiased results as an objective observation of the use of outdoor school surfaces for organized learning and free play. Most of the surveyed schools were found to poorly utilize the surrounding area of the school, with less than one-fifth of all classroom sections being observed on the outdoor school grounds in favourable weather conditions. Parents also have a responsibility to create contact with nature. A survey of experiences with nature in students up to the age of 12 found that they experience as much as 82% of nature-related activities (such as "climb a tree," "search for small animals," "make something from tree leaves, ferns, or twigs") at home and only 18% at school [25].

In outdoor teaching, students can also use ICT, e.g., plant recognition applications (Plant Snap), rock recognition (Kamen Check), wind speed measurement (e.g., Windspeed Meter), sound volume (e.g., Sound Meter), search for geographic locations (e.g., Geocaching), peak recognition (e.g., Peak Lens), CŠOD mission, etc. In the period between 2005 and 2008, the international Emapps project [26] and Mobile game learning [27] were among the first projects to promote the use of mobile navigation in Slovenia. The use of ICT in outdoor teaching can become one of the educational goals (in terms of student literacy with different ICT devices). However, it can only be an added value or a means to achieve other (scientific, social, etc.) learning objectives of different content and areas of students' development: cognitive, psychomotor, affective (emotional-social, educational). It is essential that integrating ICT with select learning objectives make sense to motivate the students and enable them to understand better the content than would be taught without ICT. In the Slovenian elementary school curricula for the subjects "Science and Technology" and "Social Studies," the didactic recommendations mention that teachers should enable students to develop skills even when using ICT, especially in cross-curricular planning and teaching. In the field of outdoor teaching, ICT is crucial for obtaining primary sources through the production of photographic recordings, audio recordings, videos that can be computer-edited later and educational films, animations, simulations, sketches, various graphical representations, thought patterns, etc. In the case of fieldwork, in contrast to classroom teaching in Slovenia, the use of ICT is relatively rare. The results of a survey with teachers suggest that, by 2010, a negligible proportion of classroom teachers used ICT in fieldwork [28]. Another study, involving 122 10-year-old students, shows that most students were interested in working with a mobile navigator during fieldwork and were able to use it independently for guidance in an unfamiliar environment [29]. When comparing the performance of students' orientation in an unfamiliar environment using a mobile navigator and a paper map, it was found that they were more independent and made fewer mistakes when using a mobile navigator than when using a paper map. However, it was also observed that they were weaker in the perception of their surroundings when they were using the mobile navigator than the paper map [30]. The research on the implementation of ICT in the Slovenian elementary school subject “Science and Technology” confirms the well-known fact that younger in-service elementary school teachers are more familiar with ICT and use it more often than older ones [31]. The term m-learning (mobile learning) is used for outdoor learning with the support of ICT all over the world. [32, 73] define m-learning as “one of the e-learning groups and consider e-learning as part of flexible learning, which increases the ability to adapt lessons to learner-centred activities and individual needs of children.” The connectedness with nature is individual and intimate, even though during outdoor learning students mostly discover, explore, and experience things in different groups (with classmates and teachers).

5 CONCLUSIONS

Based on the presented analysis of both Curricula, we may conclude the following:

- The research approach or the IBL is significantly represented in both Curricula.

- While the implementation of the new Curriculum has only just begun in Croatia, it has been implemented in Slovenia for several years and the results are significantly different (PISA research) as well as clearly indicate an improvement of science literacy among Slovenian students.

- The use of ICT is an integral part of both Curricula and is perceived as a tool for learning, teaching, and research.

- Numerous opportunities arise from the content, i.e., learning outcomes, to the prescribed methods in the Curricula that have the potential to foster a more meaningful connection between the students and nature with the help of ICT as a tool for learning, teaching, and research.
Finally, we conclude by stating that connectedness with nature in young students can be strengthened using different forms of learning and teaching that activate and engage the students, whereby the possibility of outdoor learning and teaching, i.e., environmental research is emphasized. One of the most dominant approaches is certainly Inquiry-based learning (IBL), which is part of both Curricula and which has served as the foundation for constructing the learning outcomes. The realization of a research approach, the IBL and similar forms of active learning, is achieved in the best possible way by activating the student in the research of the environment that surrounds him, which is in line with the prescribed Curricular outcomes. It is also important to emphasize that the Curriculum represent the foundation of teachers’ work and not their actual conduct. Teachers’ behavior is determined by their perceptions, which are quite resistant to change. Teachers’ development of teaching skills, their continuous professional development (CPD), including CPD for ESD, therefore, requires a systematic education to ensure that teachers possess adequate theoretical knowledge and that they can also use it [33]. This requires appropriate opportunities for different behaviors and teachers’ reflexion about their attitudes, beliefs, and behaviors, which provide a more in-depth insight into both themselves and their professional work, as well as into changes in attitudes, concepts, and behaviors.

Ultimately, we conclude, both Curricula offer numerous opportunities for students to spend more time outdoors, to be connected to/with nature, and the environment. Spending time outdoors contributes to the strengthening of the connectedness with nature, whereby the strengthening of this connectedness has the effect of increasing students’ interest and motivation for natural sciences and science literacy. It is clear from the Curricula guidelines that the student/student personality is viewed holistically. Both Curricula include direct and indirect STEM content, research approaches, and ICT tools. Furthermore, both Curricula offer numerous opportunities to strengthen the connectedness with nature among school-age children. They thereby influence the development of the child’s various aspects of healthy and optimal growth, as well as contribute to the implementation of environmental education and sustainable development into the school’s work practice.

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