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Culturally-aware environmental education: Teachers thoughts on environmental education in multicultural environments

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Abstract

Teachers' views on implementing environmental Education in a diverse classroom are examined in this study. Instructors from three schools explored Environmental Education as part of focus groups and interviews with students from various cultural backgrounds. According to the findings, environmental Education should only raise awareness and involve active participation. Constantly conflicting educational viewpoints and political agendas put instructors in perplexing situations, making it difficult to connect with students. As a result, teachers need to construct a curriculum that incorporates students' cultural backgrounds.

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Introduction

"There is unity in diversity". It's a common refrain when discussing the topic of variety. Diversity issues must be addressed in a school context so that stakeholders may better appreciate and respect the cultures of others. Cultural difficulties inherent in curriculum changes, such as language, culture, sexual orientation, and special needs of children, should be explored by stakeholders in order to find a solution to the tension between culture and curriculum.

Multicultural education and awareness can assist to diminish disputes that arise when people from different cultural backgrounds meet, according to Abacioglu et al. (2019). It will also reduce prejudice against marginalized ethnic groups. Bullying in schools may be reduced by incorporating multicultural values and perspectives. Bullying is one of the most damaging things that may happen to a child's mind. It will have an impact on how he interacts with the rest of the world. A better society has decent people. Only if the kids are well-educated and taught how to accept the peculiarities of people in a particular location can this be done. The importance of multicultural education in ensuring that students obtain a thorough awareness of race and ethnicity in their society is underscored by the fact that such students are better prepared to be productive members of society. It is critical that teachers' intercultural awareness be assessed in order to create the appropriate programs to achieve the aims of multicultural education.

Two fundamental worries characterize our contemporary world: the influence of globalization and concerns about the environment's long-term viability. "Schools are taking on a more explicit role in training future citizens for different communities due to more diversified cultures" (Azionya et al., 2019). Similarly, concerns about environmental instability and global environmental deterioration have prompted a demand for a stronger focus on Environmental Education (EE) (Goh and Lee, 2018) to establish and maintain optimum and long-term partnerships between the people and the environment. As a result, EE has become a global educational trend (Abusaada and Elshater, 2021). Until lately, "the link between cultural diversity and environmental sustainability" has received little attention (Shilon and Eizenberg, 2020). It may be possible to prevent "the fragmentation and shallowness that leaves students disempowered and unprepared as global eco-citizens" by integrating both instructional streams into a unified curriculum (Mavroudi 2020).

This research examines "teachers' perceptions of and views on enacting EE in a multicultural setting and contends that a more comprehensive, more cohesive inclusion of student diversity in EE will benefit student learning." In EE, we push for more culturally sensitive teaching and learning techniques. In general, studies on mixing these two traditions have focused on student experiences (Lytras et al., 2020). On the other hand, understanding teacher viewpoints are crucial since EE is rife with normative concepts molded by instructors' attitudes. Furthermore, both the visible and hidden curricula impact student learning and comprehension (de Andrade et al., 2018). We sought "teachers who self-identified as involved in implementing environmental activities in primary schools" to learn more about their perspectives and experiences. These schools had a "high degree of language and ethnic variety in their student populations, and these instructors were interested in adapting EE to their varied classrooms." Instructors "work in an uncertain curricular environment: EE is a transversal topic that cuts across the curriculum" (Chang et al., 2020), "yet few teachers have formal training in the field." To put our findings in perspective, we discuss "the benefits of EE in a multicultural setting and discuss terminology and practice" difficulties. "While the curricular environment is unique," it provides light on the issues that educational systems worldwide face.

EE in a Multicultural and Diverse Environment Benefits

There have long been demands for EE to embrace a multicultural component (Stevenson *et al.*, 2018) by

recognizing and embracing different ways of knowing and experiencing the world. However, according to (Stough et al., 2018), nothing has been done to create specific genres to study, describe, and foster diversity in mainstream, EE been criticized as having a privileged, affluent, and suburban curriculum (Law et al., 2019). Other cultures and ideas have often been ignored or neglected. "Both our understanding of environmental challenges and the remedies presented are culturally constrained to and by the dominant group's perspectives." Inner-city challenges that affect "people of color and immigrants, such as poverty, poor health, and polluted environs, are portrayed as social rather than environmental issues." "Given that half of the world's population under the age of 25 lives in cities," these challenges are critical (Ryan and Deci, 2020). Furthermore, immigrants who live in cities distant from their homelands may lack a sense of belonging in their concrete, high-rise communities.

Based on the notion that EE helps the development and integration of immigrant young people by linking them to their environment and one another, resulting in a sense of community and belonging, this "study was conducted (Bereczki *et al.*, 2018).

The non-academic and academic outcomes of EE support this: achievement motivation, social activism awareness, critical thinking, problem solving and decision making skills, civic and environmental engagement, positive environmental attitudes, behaviors, interests and values, student-parent environmental communication and systems reasoning" (Alalwan et al., 2020). This "approach has been shown to break the cycle of social inequality, colonialism and oppression in countries" where culturally diverse populations are contacted and indigenous wisdom is tapped into. According to studies conducted across the world, educational systems that value cultural and linguistic variety have the greatest impact on student learning outcomes, including academic performance, self-esteem, and self-assurance (Rasheed et al., 2018). Because of this, a multicultural approach must also take into account the variety of people's backgrounds, including their language heritage.

Teaching is best developed via "processes of coparticipation and social interaction in natural environments and through links with others in practice communities" (Faize and Akhtar, 2020). Because learning is more substantial when instructors and learners "participate in a dynamic process where the curriculum is co-authored" (Rubenstein *et al.*, 2018), incorporating multicultural knowledge and views, "EE that is culturally sensitive to student diversity in the classroom may become more successful overall." Based on this logic, it is evident that a deeper understanding of the importance and potential for EE in culturally varied situations is required. However, doing so necessitates the clarification of pedagogically and politically charged terms.

The conflict between multiculturalism and interculturalism is well-known.

Two alternative methods have arisen to bridge the "gap between EE and the need to address expanding student diversity" proactively. "Multicultural Environmental Education (MEE) is referred to in the literature," and it defines certain fundamental principles:

- It is a learning process that assists people in being more aware of, understanding, accepting, and celebrating various "cultures and their environmental traditions."
- There is an undeniable connection between all civilizations and the natural world from which they might learn and inspire themselves and others.
- It claims that community empowerment and restoration, in addition to environmental knowledge, are vital stages and crucial objectives and that a "non-advocacy" strategy is untenable.

As a result, MEE is defined as a comprehensive, multidisciplinary approach to problem solutions and community needs, "stressing environmental rights for everyone and including indigenous environmental knowledge and viewpoints" (Kirchherr and Piscicelli, 2019). "It is predicated on the idea that the world is amidst an environmental catastrophe that necessitates challenging the existing quo, including Western culture's" role in triggering the problem (Martin, 200). "Because they share an underlying multicultural education core. (ME) and environmental education (EE)" may be easily blended. "Each places a premium on values education and empowerment, finds common ground in valuing diversity, respect, compassion, justice, and equality, educate people to become and works to knowledgeable, thinking global citizens" (Aldrup et al., 2018). On the other hand, MEE practice was found to vary significantly; "it ideally stressed social justice and global/local links, resulting in a variety of instructional pedagogies".

"A detailed review of the literature on ME and EE" demonstrates that the two concepts are related in several ways. EE is a "multimodal method of teaching and learning that teaches individuals how to learn more about their environment and how to build environmentally responsible behavior and skills that will improve environmental quality." "Progressive ME, meanwhile, trains students to know critically, care passionately, and act intelligently" (Carrera *et al.*, 2018). Teachers achieve this by using tactics that actively involve students in their learning processes. I also demand that "instructors become more self-aware of their attitudes and actions" toward various people.

On the other hand, multiculturalism has a bad name on the world stage (Marcinkowski and Reid, 2019). Inter-culturalism has been proposed as an option to maintain an emphasis on variety. "Though some argue that the distinctions between multiculturalism and inter-culturalism are minor" (Stathopoulou et al., 2019), a few writers have pointed out significant disparities. Separate the two in the following manner: Inter-culturalism is the practice of sharing and learning from each other's "cultures in order to create a more harmonious, equitable, and fair society." The goal of multiculturalism is to "ensure that all students have equal access to education and cultivate a good attitude" toward diversity. In contrast, "interculturalism involves sharing and learning across cultures to promote understanding, equality, harmony, and justice in a diverse society." "A

multicultural environment is one in which genuine and meaningful information exchanges take place, transforming everyone involved." The intercultural approach recognizes that no one person can entirely represent an ethnicity or race; instead, each person can only reflect their own experience as a group member within their cultural environment. As a result, "intercultural EE (IEE) aims to link members of the dominant group via dialogical interactions with the knowledge reservoirs and skills of different groups," such as immigrant or refugee populations, to ensure long-term sustainability (Nikou and Economides, 2018). In mainstream EE, "IEE has also been pushed as a tool of decolonizing and Indigenizing" problems.

The focus on a more excellent feeling of the whole, in terms of social cohesiveness and the co-construction of a shared societal culture, is a contentious and sometimes misunderstood aspect of inter-culturalism (Guo *et al.*, 2020). This has often been misinterpreted as assimilationist, although this is incorrect. However, in terms of IEE, this tendency toward distinct communities that contribute to the common good is intimately linked to other concepts articulated by:

- It takes an all-inclusive approach to meet participants' diverse needs, "which are developed and shaped by how and where they live;"
- It directly involves "family and community institutions in the creation and execution of curriculum and programs;"
- It promotes environmental, community, and individual health as intricately intertwined and civilization in harmony with itself and the natural world.

The application of MEE terminology is especially challenging in the context of education policy in Québec, as it has been in other educational systems.

Other places where multicultural and intercultural *EE* collide

In response to growing variety as a result of immigration, enacted "an intercultural education policy" that reads, "Curriculum and school life must both reflect the legacy and shared ideals, as well as be open to ethnocultural, linguistic, and religious diversity" (Oyedotun 2020). Its "intercultural policy identifies the need for" "interculturally educated personnel to reflect the makeup of the school community, for the integration of students from all backgrounds, as well as instruction for democratic and pluralist citizenship for all students." "In this school district, 70% of kids were born overseas or had immigrant parents." A criticism of inter-culturalism is that it promotes the exclusion of ethno cultural minorities. It has been shown that un-linguicism policies are subtractive, promoting the "replacement of home languages and cultures with those of the host country" (Boelens *et al.*, 2018).

Assimilation and intolerance of difference have become the norm in certain schools because of the dynamics of language and power, according to teachers' remarks.

They argue that, given certain cultural situations, the term MEE may need to be reassessed. "We propose emphasizing multicultural-diverse environments to study teachers' perceptions in light of the politically sensitive discussion separating interculturalism from multiculturalism and the lack of clarity on their respective advantages and superiority" (Oliveira *et al.*, 2018). In this work, we shall use culturally-responsive environmental Education to avoid connection to conceptually ambiguous concepts.

A Cree approach values diversity; fosters society's harmonious growth by "co-creating and coimplementing curriculum with culturally, ethnically, racially, and linguistically diverse voices;" nurtures connections between people, organizations, and communities; and facilitates personal and social change (Chen and Hsu, 2020), thereby ensuring a sustainable future for all (Chen and Hsu, 2020). "As part of a larger project to create a curriculum website for conducting EE in a multicultural environment, this research sought to: 1) identify the ways in which instructors adapt EE to their multicultural contexts, and 2) highlight their perspectives on implementing an EE curriculum in their highly diverse classrooms."

Materials and methods

Context of the Study

Multicultural youngsters, teachers, "representatives of an environmental organization and members of a university research team" were all involved in a larger effort to build an EE curriculum. In the beginning, the environmental school board liaison picked three schools with a diverse student body that already had EE in place. One of the five major areas of education, and Environment consumerism, has been "incorporated in the curriculum as a cross-curriculum topic area" (Day and Beard, 2019). "Since EE is not a core subject and primary school teachers are generalists, even if school boards have staff who promote activities and provide training programs," teachers' EE vary significantly from one another. To provide light on the perspectives of educators, we wrote this piece. Immigrants and non-permanent residents made up about 75 percent of the population at each school, and children in the classes had ties to over 25 countries, "with 96 percent of them speaking a language at home. Most children come from families where their parents struggled to adjust to their new government due to linguistic and cultural obstacles as first-generation immigrants" (Alhanachi et al., 2021).

Procedures and Methodologies

Individual interviews, as well as focus groups, were used. We chose a qualitative technique because it allows us to explore and illuminate participants' meanings to specific events, acts, relationships, or social phenomena (Chou et al., 2018). The focus group, "as a socially-oriented tool for recording reallife data, 1) generated perspectives and ideas in applying EE curriculum in a multicultural- varied setting; and 2) enabled instructors to produce ideas and solutions together." "Focus groups also use group synergy, collective and collaborative problem solving, and group synergy" (Civitillo et al., 2019). Each focus group meeting took place on a "school day or a free afternoon arranged with the administrator." The "focus group discussed the following open-ended questions for an average of 85 minutes:"

• What kind of "EE activities do you perform in your classroom?"

- What do you "see while teaching EE in a multicultural classroom?"
- What aspects of tailoring EE to your multiculturaldiverse classroom do you like or find challenging?

We next asked each teacher to name a few of the most effective EE exercises they had utilized in the classroom. They addressed what made these activities effective in a multicultural context as they shared their thoughts. "The focus groups were moderated by the primary author and an educator from a community environmental organization, and a graduate student." All of "the sessions were recorded and transcribed digitally." The focus groups included 18 teachers from grades 2 to 6 from three schools in the same borough.

They were all teachers who had been identified as interested in "EE activities in their classrooms; expressed a desire to adapt their EE curriculum to their highly diverse context; and expressed a desire to contribute ideas and practices to a website for other teachers and educators to access." Participants in "focus groups ranged from grade 2 to grade 6," depending on the school.

This study's ethnocultural homogeneity of instructors reflects the school board's profile. Teachers ranged in age from 5 to 20 years in the classroom. They were in their early twenties to their mid-fifties. They'd all received their studies at a nearby institution. None of the participants had had considerable specialist training in multicultural-diverse settings or EE, despite having attended at least two professional development seminars on these topics.

We interviewed interested participants, as well as school administrators, personally to obtain more profound instructor reflections. These were conducted as talks to elucidate the underlying significance of their positions (Harrison). Questions enabled us to go further into issues in the focus groups, such as "teachers' perceptions of EE, how it connects to preparation for and practice in multicultural-diverse situations, and instructors' interactions with students' home cultures and parents." The following were some of the questions:

- What motivates you to "teach in a multicultural environment?"
- "What are the difficulties you have while teaching EE in a multicultural setting?"
- Do you have any experience teaching "EE in a multicultural setting?" What "role do you believe EE could play" in respecting students' backgrounds?

The interviews were digitally recorded, transcribed, and lasted between 30 and 50 minutes. Five of the ten individual interviews were with teachers, while the other three were with school administrators. Five more instructors who had offered to be interviewed could not participate because they were on maternity leave at the time of the interviews.

Finally, instructors have presented a presentation of EE and ME as two overlapping concentric rings (the phrase "multicultural" was often used by the teachers themselves) and asked to remark on the interface.

Throughout the study, "these guiding concepts promote the essential values of respect, concern for others, and fairness." "Participants might refuse to join at any moment without repercussions," and they could remove or decrease their donations at any time. The status of teacher involvement was not communicated to administrators or board liaisons. Individuals were informed correctly about the terms "Traditional conditions of participation. and conceptions of confidentiality for individual interviews were followed." "Confidentiality within the focus groups was maintained at the group level." "The transcripts of focus groups and interviews were converted to text for analysis." Hyper Research was used to "code at the level of units of meaning utilizing" open and axial coding approaches (McCallops *et al.*, 2019).

We started with focus group data and then went to interviews to create the codebook. The codes must be visible at all three schools to be included in the study.

Results

The research suggests that although instructors who use EE know that the setting, they work in demands them to embrace diversity, "their values, lack of readiness, and insufficient support emphasize the challenges of adapting EE to multicultural-diverse classrooms." The predominating topics are presented here under two headings: "(1) ways for performing EE in a multicultural setting; and (2) problems in adapting EE to culturally-diverse classrooms".

"EE implementation strategies in a multicultural setting"

"Teachers were pretty eloquent about implementing EE since they were first identified because of their interest in adapting EE to their different classes." They typically choose the classroom as the ideal location since they have the most significant power and influence. Teachers' top objective, according to students, "was to encourage behavior change so that they felt empowered to make a difference." Small actions were everv day, but thev were developmentally appropriate. Many activities were adapted to children's, teachers', and parents' daily life. In general, this included creating "daily routines for recycling, composting, and reusing for them to become second nature; in other words," "it's a chore that needs to be performed every day".

Experiential tactics were also important, ranking as the second most crucial method. Teachers discovered that manipulation and action were the most effective methods of learning. "For example, we have a composting bin in class, and we illustrate what goes in and what occurs," one focus group member (school 1) said. Another teacher discussed how having doves in her classroom allowed students to interact with animals while learning about ecosystems and reproduction.

Teachers also identified teaching critical thinking to engage youngsters in a topic that is potentially more flexible than, say, mathematics. "The children need to be allowed to reflect," one instructor told of how EE kids may interact with the issue by providing them the ability to investigate via conversation or study. "You may give them a lot of time," Azure (school 1) stated. "At the very least, you may start with a question, leave it with them, and revisit it at the end of the week. It's been simmering in the meanwhile."

There was some knowledge of the benefits of including intercultural links into their teaching, in addition to perspectives on how to teach EE. "This morning, we spoke about questions," a teacher said in one focus group (school 2). It was subtle yet satisfying. Sure, pupils are primarily affected, and they make extra attempts to talk in class."

Using "a transdisciplinary approach, teachers were able to respond to unanticipated opportunities to address the environment, enabling the problem to be smoothly incorporated into all topics and activities in the classroom." This was the method that another educator shared with the group during a focus session (at School #2).

It must be integrated for me, "especially in a multicultural scenario since people don't always have the time, says author." Teachers were pleased with the EE's multidisciplinary nature, which they incorporated into the curriculum. "It was found that students and instructors had a better time learning" when they shared their own experiences in the classroom and tied EE to what they liked. Santiago (from school 3) emphasized the need of first teaching the youngsters about their own history.

"The foundation of teaching is to establish a connection with the students based on their own experiences." "How did you feel before you arrived here?" That also provides the other youngsters an opening and myself some fundamental understanding of each other's cultures. His comment emphasizes how this strategy fosters relationships and understanding with both the instructor and the students. "You have to build a connection with what [background] they are," one focus group member (school 2) said.

This offers them the satisfaction of expressing themselves to others and conveying who they are."

Teachers exchanged ideas on how to better "reach out to children in a culturally diverse classroom" by changing the style and content of the curriculum. They spoke about how they teach and how important it is to learn from kids. "One may learn a lot from them since they have such a diverse range of life experiences. I usually get the sensation that I'm learning as well as teaching. It occurs on two levels." Teachers discussed incorporating it into all disciplines and throughout the school year.

Many children in "this urban setting did not have any opportunities to go outside with their parents;" thus, offering opportunities for pupils to have a direct touch with nature was very important. Families have little time to enjoy outdoor activities since parents are anxious and overwhelmed, working long hours. Students generally resided in triplexes or flats in densely populated areas with minimal green spaces. Teachers spoke about kids living vicariously via literature and television in the natural world. They all agreed that the students in their courses were often cut off from nature. "They don't feel like they live in nature because they're continually hooked to their screens," says the author. They are city dwellers" (Daisy, school 3). As a result, instructors concluded that kids had little understanding of or connection to the environment's influence on their lives. "Since we are in the city, it is difficult for children to have a direct touch with nature and to create an emotional relationship with nature," Marie (school 2) said. Frequently, "they have never been outside their concrete neighborhood." "Several professors realized that taking cultural diversity into account was important."

Teachers saw the need to find methods for pupils to engage as much as possible with their parents in the framework of EE to improve the linkages between school and home. To have a significant influence, numerous instructors realized that part of their job was to assist students in becoming engaged and participatory members of society, especially by establishing relationships with parents at home. "A focus group member (school 2) recounted her participation in establishing a school vegetable garden for parents to care for during the summer months." "During the summer, the outreach worker who comes to the garden to take care of the weeding and watering approaches the parents." "They gather veggies from the Park during the summer, and after the season, they may harvest." This exercise demonstrated how EE might operate as a link between the classroom and the home. Students took their new environmental knowledge home with them and assisted in reinforcing pro-environmental behavior. Azure (school 1) spoke about how powerful this was for the kids.

In order to carry out a Cree program in this manner, a common language has to be developed first. Additionally, the purpose is to encourage students to use "EE context-specific terminology and to develop a shared knowledge of environmental behaviors." "I'll say the same thing four times in various ways," Rose (school 3) stated. So that they may find a way to connect." Teachers discussed changing their language by developing images to explain EE ideas. Taking the time to produce these stock photos were necessary. Instructors' perceptions of the links remained immature. "When asked to explain how they regarded the relative significance of each element and the interrelationships, we found that teachers hesitated in their replies." For instructors, "this form of reflection looked to be rare." The obstacles to adopting EE in multicultural-diverse classrooms, highlighted in the data, are discussed in the next section.

Challenges

"Internal and external barriers were identified as impeding their ability to adapt EE to multicultural, heterogeneous classrooms." "Two of them were about value disparities and a lack of shared lived experience among students, while the other was about the need for assistance and reaching out".

"Values held by teachers and values held by students" The perception of a conflict between instructors' and students' environmental beliefs was the most frequent difficulty category. "Their consuming patterns are just not the same," one instructor said emphatically.

J. Bio. & Env. Sci. 2022

"They don't have the same resources, and they don't have the same priorities".

There was a fantastic view that environmentalism was a new notion among the value disputes to the kids' families. "The environment is not always a value in every social situation, a teacher in a focus group (school 2) said." Before that, they have other things to consider." The argument implies that environmental protection is "a luxury that immigrant households cannot afford." "Several instructors used a hierarchy of requirements to illustrate that environmental protection came second to fundamental necessities." "You know, I believe environmental education simply doesn't score on the pyramid sometimes when you're in survival mode," Azure said (school 1). "Teachers believed that families lacked time to be worried about the environment due to the necessity to establish themselves in a new nation and economic restraints."

Teachers were well aware that preaching conservation principles may cause friction among immigrant families who saw consumer culture's trappings as a sign of success. "When kids get here, consuming becomes a symbol of integration and success," "one focus group member (school 1) remarked directly."

Then I show there and inform "them that consumption is harmful to the environment." "The principal (school 1) was concerned that the disparity in values might lead to teacher discontent." "It astounds me when I look around my schoolyard and see people going about, leaving everything, and simply dropping anything on the ground."

"Does that help to bring people together?" Different perspectives on public space duty and hygiene emerged from the responses. This perspective entails constructing the environment that treats it as separate from and subordinate to the economic concerns of immigrant families. Teachers promoted a concept of the environment as a resource to be controlled (Markey *et al.*, 2021), which they assumed immigrant families couldn't do due to their financial and living situations. There is a lack of shared life experiences among the pupils.

Instructors identified disparities in the background as hard because teachers and pupils have different and frequently conflicting beliefs when it comes to the environment. Teachers often said that they did not understand their pupils' historical and cultural lived experiences. "My kids and I do not have the same cultural, social, or economic experiences or references," one instructor said bluntly. We have no idea what our pupils' daily lives are like." "Cultural references, common experiences, we simply don't have [them]," said another focus group member (school 1). "When I speak about my childhood," I'm referring to when I was a youngster. When I look at them, I see that something isn't quite right. They haven't had that kind of experience." "If it was typical for him to have a lot of rubbish left on the street," one instructor said, "when I speak about it, he doesn't grasp the problem."

Teachers could not connect to their pupils due to a lack of commonality. Several people said that they didn't deal with differences because they were uncomfortable with the idea of being disrespectful to religion, for example. This discrepancy was shown by one teacher (focus group, school 1) when it came to child-parent relationships:

It's simpler for me to visualize and infer the connection between the parent and the kid when I'm in a group. "Oh certainly, their dynamic must be like this," I may say. "I find it more challenging here at times."

Their teaching was influenced by their inability to "picture their students' home contexts and engage in greater multiple/multiethnic perspective-taking." They readily forgot that, in the "absence of shared lived experiences, a simple phrase like forest would not conjure up the same picture for them. A teacher stated this in a focus group (school 1):"

"Because I understand what a forest is, I believe that everyone does." "For them, a forest is defined as the trees in Park, and a mountain is defined as a massive forest." "It's a challenge and it's pretty tricky."

27 | Endrano et al.

Teachers' difficulty in remembering to account for these disparities is reflected in the repeated phrases at the conclusion. However, the sentence, "I know what a forest is demonstrates this teacher's incapacity to comprehend that forest may have diverse meanings in different cultural settings."

"Teachers discussed the difficulty of conveying topics in ways that pupils" understood when citing language as a barrier. "We never know what they image in their thoughts," one teacher stated during a focus group (school 1). Putting oneself in their shoes is quite difficult." Teachers may inadvertently promote implicit culturally built environmental signals at odds with the student's experience with the environment, thereby causing a conflict. This difference was shown by Azure (school 1):

When it comes to the surroundings, it's impossible to say if they used to live in a busy atmosphere with many people. It's also rather distinct. If the street was filthy for the youngster, that's when I started talking. It's tricky since we have no idea where they're coming from.

Teaching about environmental behaviors was "problematic due to differences in teacher and student living environments." This conflict is exacerbated because Cree is seldom impartial "but reflects values and socially formed belief systems." Daisy (school 3) described how she faced this difficulty "when visiting a student's" "rundown residence" and "teaching about water conservation and the significance of sealing water taps to minimize consumption:"

What a sad situation for the youngster. He's at home, and the water is continually running since there's no washer, and it's not his fault the landlord hasn't been up. I speak about turning off the tap all day, and when he comes home, it's still on. What a pathetic youngster. I hope he doesn't feel too bad about it since I was harping on it for a long time. That's not something I should do. "Her word choice implies a pitying attitude, as well as a primary-level oversimplification of EE. Even after working in a multicultural atmosphere for many years, teachers said it was still difficult to relate and comprehend their students' past and current life experiences." "It's still sort of confusing," one focus group member (school 1) agreed. This shows that closing the gap may include knowing about "cultural differences and learning to work with and capitalize on them to enhance and broaden the curriculum and student learning."

The "assumption that families make little effort to integrate socially, underpins instructor perspectives." Several others mentioned the problem of students being excessively attached to their home country, "regardless of whether they were current or past immigrants." "Daisy (school 3) expressed her worry and requested that immigrants be given a values education to help them assimilate."

They've lived here for nine or twelve years, but they still believe in their way of thinking, their own beliefs, and they don't care about ours. They aren't offered a Values 101 course to learn how society works, how to integrate, and how to act in it.

These remarks had a condescending tone as if "culture was something that immigrants needed to learn rather than culture responding to changing demographics." "This also reflects some of the misunderstandings about multiculturalism and interculturalism." "More than half of the school, yet they genuinely live the way they do in their place of origin," Azure (school 1) expressed her dissatisfaction with the lack of integration. "That's a bit odd." Teachers were in the minority in these various schools. "In one school, Marie (school 2)" said that she had someone in her class who looked like her for the first time in her life. "It's odd since she's the only one that feels different." "While a teacher may be a minority in her class, she teaches her culture, which is the prevailing culture."

"The emphasis of social integration in teaching EE in a multicultural situation is mostly on assimilation to the dominant culture." "This might be disconcerting when a teacher perceives her responsibility as an educator as teaching citizenship. Rose, a third-grade student, explained:" Yes, I believe it is my responsibility to teach math and other secondary topics. Still, I also think it is my responsibility to educate the student on being a decent citizen. To be a good citizen, you must first learn how to be one. However, being a good citizen entails being aware of everything: multiculturalism, the environment, how to interact with others, and what is and is not done.

The terms "what is done" and "what is not done" are loaded with meaning. "I believe we might provide environmental education by discussing culture," Daisy (school 3) said. If instructors have limited awareness and tolerance to various cultures, there is a possibility that EE will be used to promote a cultural perspective that is discriminatory or marginalizing.

Teachers need assistance and are encouraged to seek it. Teachers found a variety of reasons for their students' lack of enthusiasm and energy when implementing EE in their multicultural classrooms. Teachers quickly understood that teaching English as a Second Language "(EE) in this context would need more preparation and a different approach." A lack of preservice or in-service learning left many teachers feeling unqualified to teach Cree, and this was recognized by the teachers themselves. When asked about previous training, candidates in half of the interviews answered with blunt language like "in no way," "never, not at all," and "never, never. Daisy, a third-grader, was dissatisfied with her pre-service training. A "broad education concern," "but we have no plan in place to address it." I don't like how light and airy it is."

Another factor was a lack of resources. "I've noticed that we often lack the necessary supplies. Everything has to be built by us. "As a result, some individuals quit up," Marie added (school 2). Another student, Azure (school 1), stated why a more adaptable approach was necessary: "People often assume instructors have the perfect technique since we teach are always prepared for us," says one teacher. "Teachers also recognized that while many specific strategies play out at the level of the classroom, several required transcending those boundaries." "One teacher captured this sentiment:" "You can't just stay within the four walls of your classroom." You can't do that anymore." "Teachers identified the involvement of the whole school as essential to support a more systemic instructional approach to EE." "Many environmental activities such as recycling, composting, and gardening needed schoolwide initiatives to succeed."

Green committees made up of instructors or students from different grade levels were crucial in raising awareness and providing "a setting for developing the skills needed to carry out environmental initiatives." Several participants identified а significant significance for green student committees. "The Green Brigade was in charge of composting and collecting it, as well as transporting it outdoors" (Rose, school 3). "Green committees made it feasible to plan school-wide initiatives and reach a broader audience by including students from various grades." Teachers understood the importance of having a group of colleagues involved in environmental initiatives. It was thought that having chances for instructors to share information and resources was critical. "When I don't have the skills to cope with a problem, I seek support," one instructor stated. 'How do I approach such-and-such an issue?' It improves consistency. And consistency makes the message more evident." The green committees' capacity varied based on the engagement and leadership of individual instructors and administrative assistance in each situation.

Administrative assistance was necessary to promote and reinforce "the emphasis on the EE curriculum and activities at the school level." Perhaps it's no surprise "that teachers in all three schools highlighted the importance of the principal's support." Teachers were mobilized by a headmaster who was environmentally conscious. "The duty is basically to excite the whole workforce consistently," one principle (school 3) remarked. "The importance of caregiver support was also identified." "They often paid for the upkeep of equipment or space needed for conducting environmental activities on school premises." "Reaching out to the community and establishing connections with the home was part of going beyond the classroom boundaries." When developing the Cree curriculum, this was very significant. Creating such relationships with parents, however, was not easy. Different cultural customs and conventions view teacher authority, and demanding economic realities made it difficult for teachers to engage with parents.

Azure (school 1) described how it took her some time to ease dealing with parents from different cultural backgrounds. "These were often parents who were struggling to make ends meet." "They will work till 8 p.m., and they will not be with their kid at all." Their schedules aren't always in sync with ours." Teaching EE was thought to be difficult due to financial constraints. "The environment's worth isn't necessarily essential to everyone."

They're only trying to stay alive. "They have other things on their minds," one focus group member noted (school 2). Teachers discussed the issue of persuading culturally varied parents of the need for environmental preservation. "In any case, we still have a lot of work to do in terms of environmental education." So if the parents are on board, we'll have a better chance of succeeding." "Instructors' difficulties show that bridges of understanding between teachers, students, and parents are needed to prevent misinterpretations and misunderstandings."

Instructors recognized the usefulness of "collaborations with external environmental groups to assist EE and highlighted motivating teachers to transcend the classroom walls." As a result, "community environmental educators from Ecoquartier or Vrac Environment visited each of the three schools." Bringing in local groups was also a means to introduce pupils to community resources. Reaching out to local groups was not done regularly. "Everyone works well together," one administrator (school 1) stated. The community and the organizations have a terrific working relationship. However, "I believe you must want it. You must be self-motivated."

Discussion and suggestions

According to the findings, environmental education should consist only of awareness-raising and involvement. In order to motivate students to study in environmental education, experiential strategies were crucial. It may establish a link with the students' experiences. Constantly contradictory educational perspectives and political goals place teachers in unsettling circumstances, making it difficult to connect with pupils. Therefore, instructors must include students' cultural origins into the curriculum. A Cree program is designed to establish a connection between school and home. There are obstacles to overcome, such as internal and external impediments. The most prevalent problem category was the notion of a disagreement between instructors' and students' environmental attitudes. Instructors regarded discrepancies in background as challenging since teachers and students typically have contradictory attitudes on the environment. Teachers often said that they could not comprehend the historical and cultural experiences of their students. When adopting EE in multicultural classrooms, teachers discovered a multitude of causes for pupils' lack of passion and energy. Teachers immediately realized that English as a Second Language (ESL) instruction in this setting would need more preparation and a distinct strategy. Many instructors felt unqualified to teach Cree due to a lack of pre-service or in-service training, and this was acknowledged by the teachers themselves.

"Adapting EE to multicultural-diverse classrooms is beneficial to student learning and is a critical ability to develop in the present milieu of globalization and environmental disaster" (Gaias *et al.*, 2019). We also embrace and uphold the fundamental concept "that all cultures may significantly contribute to EE." Given the notion "that the subject topics of EE are socially constructed," Cree should ideally include various voices in curriculum creation and implementation. "While progress has been made in this area, there is still a long way to go before a rich, culturally responsive curriculum" is achieved. "This inquiry took place at a given time, in a certain place, and with specific persons" (Liao *et al.*, 2021). As a consequence, the themes may seem strange; yet, limited transferability may be justified, indicating future directions. We discovered that those "teacher strategies reflected aspects of progressive EE that went beyond simple knowledge-awareness to emphasizing changes in behavior and nurturing ownership in understanding teacher strategies for adapting EE to a multicultural context, as well as teacher perspectives on the challenges they faced." Teachers in our study's urban context struggled to see how their students' diversity might affect EE in more fundamental and meaningful ways.

Teachers' critical comments were often the result of conflicts between their principles and their students' perceived values, "as well as a lack of comparable lived experiences. It's easy to see how EE may become patronizing, with instructors enforcing ethnocentric attitudes rather than encouraging tolerance, which is a common critique of the discipline" (Mellom et al., 2018). Because of their families' poor socioeconomic level and linguistic barriers, "some teachers focused on the challenges of practicing EE with immigrants." "Teachers' insistence on focusing on the lack of a common language, on the other hand, ignored students' native-language skills and revealed a lack of understanding of a more culturally appropriate curriculum." "This is a rather regular phenomenon that isn't unique to our study." "Using the Learning Gardens concept, where elementary students plant, harvest, and prepare their food, a high school energy conservation program in collaboration with local utility companies may highlight outside natural activities for preschoolers to learn about sustainable practices." It might be as easy as emphasizing the 4Rs (reduce, reuse, recycle, and reclaim) or as complicated as incorporating social action to achieve environmental justice. Festivals, food, folktales, and unusual ethnic practices are all included in the multicultural curriculum, "as are more fundamental differences in thinking and belief systems."

"One of the most significant takeaways from this study is that implementing culturally responsive EE will need reforms involving both instructors and the larger educational and political communities." "When intercultural policy and integration are motivated by a desire to protect and maintain a nation's identity, culture, and language, contradictory signals might emerge in the classroom (Bersh 2018)." "Implementing a policy that reflects cultural responsiveness will be challenging given the stated international tendencies. This double-bind demands particular attention in the context of globalization and widespread migration." They argue that to have a truly multicultural state that respects linguistic and ethnic variety, individuals must take responsibility for accepting linguistic and ethnic intercultural diversity, including teachers. Teachers must overcome their own restrictive and sometimes attitudes prejudiced views and to improve multicultural environmental learning.

Our recommendation to rename the teaching style in this article may help resolve the conflicting signals received by classroom instructors and school board officials. Cree might be a viable choice as long as it adheres to Running Grass' main ideas; it could help to clarify the highly contentious worlds of interculturalism and multiculturalism, as well as their assimilationist implications. Building teacher ability to co-create curriculum to achieve family and community participation in curriculum creation is another suggestion from our research. According to studies, the most successful and innovative instructors build a curriculum tailored to their students' needs. Because EE is so complex, this is connected to feeling at ease responding to EE learning opportunities. "As our study reveals, teaching EE necessitates being creative with and receptive to the social and environmental variety of their specific location."

One strategy for facilitating curriculum co-creation is "to position teachers as collaborative action researchers who collect information about linguistic, cultural, religious, and ethnic conceptions of the environment both in and out of the classroom, incorporate common themes in classroom activities, and redesign curriculum relevant to this milieu." "When children's lives are brought into the classroom, it tells them that their opinions and experiences are respected and influential, which boosts their self-efficacy." "Children may actively participate in environment curriculum creation, which is essential if instructors encourage them to share previous and present living experiences in class." "Students also bring a critical eye to what, how, and why they are taught, allowing instructors to concentrate on what may be improved and how students could approach their learning in a new way." Understanding is aided by allowing room for studentteacher discussion in resolving conflicts between teacher and student environmental opinions.

Encouragement "self-reflection of and the establishment of teacher critical awareness would have implications for an essential component of teacher education and professional development." This would aid in resolving the hidden curriculum, which often obstructs learning due to conflicts between instructor and student values. Teachers in this study were compassionate, dedicated people who wanted to extend their pupils' views and make a big difference in the world. This does not change the reality that they are products of our cultural history, particularly educators from affluent homes like all of us. "One way for better equipping educators is to create chances for in-service teachers to participate in the reflective discussion and critical inquiry about their multicultural environmental teaching methods." "The importance of instructors cooperating was often stressed throughout the investigation." Thev discovered that teamwork improves "problem-solving and creativity and that collective knowledge outperforms individual expertise." More study is needed to test alternative models with instructors and see how they might help students learn about the environment in multicultural settings.

Finally, our research suggests that Cree should extend beyond the classroom. This is related to the notion that environmental justice requires activism and community empowerment. Teachers do need assistance and resources from their schools and communities. "Partnerships with different cultural and linguistic organizations and ethnic groups enhance student-teacher environmental learning in circumstances when instructors have minimal language and cultural variety, as is now the case for the majority of primary teachers" (Szlachta and Champion, 2020). Through the facilitation of meaningful exchanges between teachers' students and their parents, communities, environmental organizations, and the teachers' own experience and knowledge of their own students, "educators can better understand their students' diverse cultural and environmental lived experiences and subjective wisdom."

Reaching out outside the classroom is one method of putting into practice the core premise "that every culture has a connection with the natural world that we can all" learn from and be inspired by. Furthermore, these projects can create a unified network of healthy communities and environmental ties. As our research has shown, outside-theclassroom participation is highly dependent on individual teacher motivation and the excitement of the administrator. Creating an empowered educational culture and social structure includes moving to support institutions.

Conclusion

Finally, as discussed in this paper, a cohesive curriculum that incorporates "Cree may help students learn more and be better prepared for the expanding diversity in urban areas and the environmental catastrophe." Making Cree a priority and a reality requires increasing teacher knowledge and capacity and providing the tools and support needed to go beyond the classroom.

Teachers must be better prepared to appreciate the ethnic and linguistic variety and encourage EE in their classrooms, which requires avoiding politically sensitive and imprecise terms in this context. Building stronger ties between teachers, students, parents, and other community members will eventually help children bridge the gap between home and school culture. We may get fresh insights into the potential for Education to produce eco-citizens who live in peace with each other and the environment when instructors and students grow to perceive themselves as part of a much larger global picture.

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33 | Endrano *et al*.

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