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ABSTRACT

Collaboration, communication, creative thinking, and critical thinking, or 4Cs, are important 21st century learning skills which prepare students to face challenges in the globalised world of the 21st century. In this paper, we explore the link between the 4Cs and a rather unconventional pedagogy, outdoor learning. In Malaysia, the outdoor learning space has not received much recognition and is often overlooked. Therefore, we sought the experiences of primary school English language teachers when engaging with outdoor learning to see how their practices reflected the 4Cs. Data were obtained through five in-depth interviews with teachers and were analysed using an inductive approach. Two main themes which related to soft skills and thinking skills development were identified. It was found that outdoor learning had potential to enhance soft skills because it emphasised communication and collaboration. However, in terms of thinking skills we found that there is still room to engage more deeply and meaningfully with critical and creative 21st century learning skills. Currently, outdoor learning seems to be a rather grass-roots effort that happens at the discretion of individual teachers. Nevertheless, it has a role to play in nurturing critical and complex thinking and effective communication and collaboration which are needed for the 21st century.

KEYWORDS: English language teaching, outdoor learning, primary school, 21st century learning, 4Cs

Introduction

21st century learning is an education reform that aims to prepare students with the necessary skills to face challenges in the globalised world of the 21st century. The learning paradigm of the 21st

century requires students to have competence in three broad domains which include learning skills, literacy skills and life skills. This student-centred paradigm has been adopted by many countries around the world, and was first introduced in Malaysia in 2014. At present, the integration of 21st century learning skills into the Malaysian national education system aims to equip students with adequate skills, and to nurture Malaysians who are “balanced, resilient, inquisitive, principled, informed, caring, patriotic, as well as effective thinkers, communicators, and team players” (Maizatulliza & Goh 2019, p.32).

21st century skills have been grouped into three main domains or categories. The first is learning skills, also known as the 4C’s, which include collaboration, communication, creative thinking, and critical thinking. The second category is literacy skills, which comprise of information, media, and technology literacy. The third category is life skills, which consist of flexibility, initiative, social skills, productivity, and leadership (Azni et al., 2020).

In this paper, we seek to explore one of the many ways 21st century learning skills can be nurtured through outdoor learning, which is considered for the most part as an unconventional pedagogy. Outdoor learning has been defined as an approach to learning that takes place outside the confines of a classroom where students work together to learn about the self, others, and the natural environment (Price, 2018). Outdoor learning has been adopted by countries worldwide and there is a large pool of studies which suggests its positive impact on learning. Studies from Taiwan, United Kingdom and Indonesia have found that this approach has allowed for improvements in the four English language skills, which are reading, writing, speaking and listening (Chang, 2018; Richardson & Murray, 2017; Setyarini, 2017). Other than that, the outdoor environment has been found to develop creative thinking skills and boost English language learning due to the congruency of authenticity and reality (Mutlu & Yildirim, 2019).

We see a link between outdoor learning and 21st century learning because both share similar aspirations. For instance, both provide a space for students to collaborate, communicate and exercise critical and creative thinking skills. While in theory outdoor learning shares similar goals as 21st century learning, what is unclear is how this approach is practiced, and how teachers experience engaging with this pedagogy. Additionally, in Malaysia, the outdoor learning space has not gained much attention and recognition.

The lack of research within the Malaysian context has prompted us to explore this pedagogical approach further, specifically within the primary school environment. Due to the focus on indoor learning within the Malaysian education system, the outdoor learning approach especially in the field of ELT is to some extent considered unconventional and outside of mainstream teaching and learning. Here, we particularly place attention on teachers from privately funded primary schools who have engaged with the practice of outdoor learning. It has been observed that while outdoor spaces are being under prioritised in national schools, some private schools view outdoor spaces as extensions of the classrooms. This suggests that outdoor learning might be more prevalent in private schools compared to those that are government funded. Therefore, the question that drove this study was:

In what ways do primary English language teachers’ practices of outdoor learning reflect 21st century learning skills?

Literature Review

Outdoor learning places emphasis on working with others to learn about the self, others and the natural environment outside the confines of classroom walls. This approach has been used in many European and North American countries and has been incorporated into the teaching of numerous disciplines including art (Hursen & Islek, 2017), biology, mathematics (Fägerstam & Blom, 2013) and geography (Dolan, 2016), just to name a few. The concept of outdoor learning dates back to time of ancient Greek philosophers such as Aristotle and Plato, and in subsequent years to other philosophers and scientists such as Rousseau and Pestalozzi who argue that children should be allowed to learn in the natural world (Yildirim & Akamca, 2017). Literature in the area of outdoor learning indicates that the notion of ‘outdoors’ can cover school-yard compounds, grounds outside the school, those in the local neighbourhood, and even those involving field trips and expeditions.

The benefits of outdoor learning encompass students, teachers and the overall cost of education. Research has shown that outdoor learning has improved student engagement and concentration and has also promoted teacher job satisfaction and well-being (Marchant et al., 2019). Furthermore, its proponents of outdoor education argue that there are relatively low costs involved in outdoor learning as opposed to the expenditure needed when having to build classrooms (Harvey et al., 2020; Khan et al., 2020), which subsequently can reduce investments in education. While numerous benefits exist, there is a lack of awareness among teachers on utilising the outdoor environment for the purpose of teaching and learning (Gray & Pigott, 2018).

One of the turning points of outdoor learning can be said to occur in 2020, when the Covid-19 pandemic disrupted teaching and learning in many countries causing a shift of focus to outdoor learning. School closures have had negative repercussions and this disruption has affected not just students’ physical activity but also learning (Moore et al., 2021). Therefore, Valentini and Donatiello (2021) observe that lockdowns around the world have emphasised the need to rethink and relocate teaching and learning spaces.

Within the context of ELT, there have been a handful of studies which have reported the utilisation of the outdoor learning method. Studies from Taiwan, the United Kingdom and Indonesia have found that the method allowed for improvements in the four English language skills, which are reading, writing, speaking and listening (Chang, 2018; Richardson & Murray, 2017; Setyarini, 2017). The use of technology in outdoor learning has also proven to improve English language acquisition. A study by Shadieff et al (2018) revealed that of wearable devices smart watches with dictionaries assisted with English vocabulary acquisition, leading to a positive correlation between learning performance and physical activity. Here, students explored their environment using the dictionary in their smart watch to translate unfamiliar English vocabulary. Additionally, learning outdoors was found to develop creative thinking skills and boost English language learning (Mutlu & Yildirim, 2019).

In Malaysia, outdoor learning can be described as being in early stages of adoption with most studies concentrating on non-English language learning contexts (see Dhanapal & Lim, 2013; Siti, 2017; Syaida et al., 2018; Tuan Mastura & Tamby, 2013; Yaman et al., 2018; Foo & Foo, 2022). These studies investigated outdoor learning in the context of learning science subjects (Dhanapal

& Lim, 2013; Tuan Mastura & Tamby, 2013); university courses such as landscape architecture (Yaman et al., 2018) and sustainable related courses (Siti, 2017). These studies reveal that outdoor learning can positively contribute towards students' learning experiences. Furthermore, these studies have also illustrated the significant role that outdoor learning has in education as a whole.

The small pool of studies on English language teaching and learning and outdoor learning also reflected positive implications. Some examples include Wan Zumusni et al.'s (2019) study which revealed that there was an increase in motivation towards the learning of English through the incorporation of outdoor learning. This case study focused on the implementation of a Week without Walls (WWW) where undergraduate students learned in a less structured manner, beyond the confines of classroom walls. At the same time, technology was also embedded into lessons to facilitate greater and more meaningful social interactions.

One interesting observation from within the Malaysian English language teaching context is that the outdoor learning method has been described to exhibit characteristics of 21st century skills emphasised in the Malaysian Education Blueprint (MEB) and the revamped national school curriculums. In a study by Chai and Suyansah (2020). Outdoor learning was termed as "environmental project-based learning", where environmental resources were incorporated into English language teaching. As evidenced through this study, significant learning gains in terms of vocabulary acquisition among primary school students were observed. Thus, although limited within the Malaysian context, there still exist "pockets" where teachers are seen to engage with this pedagogical practice. This once again reinforces our interest to explore primary school English language teachers' conceptions and practices of outdoor learning.

In many ways, we see the underlying values and practices of outdoor learning aligning with the skills that 21st century learning aims to nurture. The introduction of 21st century learning has transformed teaching and learning from what was traditionally teacher-centred to one that is student-centred. Maizatulliza and Goh (2019) highlight some differences between a traditional classroom and one that employs 21st century learning skills. They claim that traditional classrooms are textbook-driven, focus on rote learning and memorisation, and restrict learning to the four walls of the classroom. 21st century classrooms on the other hand are likened to a "Global Classroom" which is research driven, collaborative with opportunities for students to be active learners. Outdoor learning is driven by the same practices as well. For instance, in a review of literature that explored the emerging themes of teaching outdoors, two out of the 4C's (creativity and collaboration) emerged as frequently mentioned themes (Wolf et al., 2022a). Additionally, technology has also been embedded in outdoor learning, which can lead to the development of technology literacy, another element of 21st century skills (Wan Zumusni et al., 2019). Furthermore, life skills which mainly involved social interactions has also been observed as a transferrable skill when learning outdoors (Akin et al., 2020). Hence, we see how the practices of outdoor learning intersect with the skills that 21st century learning aims to develop.

Method

For the purpose of this study, we focus on teachers from private schools in Selangor and Wilayah Persekutuan, which incidentally have the most number of private institutions in the country (Ministry of Education, 2021). Furthermore, private schools in these states are mostly equipped with facilities within their schools' vicinities, which inadvertently could support outdoor learning. Hence, teachers from these two states were the focus, as they were believed to have more opportunities to engage with outdoor learning as part of their professional practice.

Participants were purposefully selected and were chosen based on their experience of teaching English in private primary schools in Selangor and Wilayah Persekutuan. Only teachers who had at least two years of English teaching experience and who had some amount of experience engaging in outdoor teaching were sought, as it was believed that they would have sufficient knowledge and experience of this practice to draw upon. Participants were recruited through word of mouth and personal referrals. A total of five teachers responded and expressed interest in participating in the study.

Data were in the form of interviews which were conducted through an online video conferencing platform. Each interview lasted approximately 60 minutes and during this session, participants were first asked to sketch out their conceptualisations of outdoor learning so that deeper insights could be gained through participants' visual representations. Next, they were asked a series of open-ended questions which probed deeper into their sketches and their experiences of engaging in outdoor learning. Interviews were then transcribed and organised in an excel sheet for ease of identification.

Data were analysed using an inductive approach which involved identifying prominent patterns, themes, and categories. The data analysis process began by reading interview transcripts numerous times so that a deeper understanding of the data could be gained. Data were then divided into smaller parts, or meaning units which was then represented through codes. These codes were assigned to the data based on semantic similarity, and this enabled the significance of the data to be visualised. Codes were later grouped into categories, and eventually interpreted into themes. Part of this process included focusing on some of the data, while disregarding others in order to form a small number of themes to represent the data (Creswell, 2014). At this stage, potential themes were harmonized based on the study's research questions. To deal with biases that could potentially arise when interpreting themes, peer debriefing was employed. Finally, a coherent, informative narrative was formed from the data to illustrate the two themes that were identified.

Results and Discussion

Teachers' conceptions of outdoor learning and their experience of engaging with this practice reflected two main themes. In the following section, we report how these two themes intersect with some of the skills prioritised in 21st century learning.

A. Outdoor Learning as a Means of Enhancing Soft Skills

The first theme that reflected 21st century learning skills was in relation to soft skills enhancement. Soft skills encompass interpersonal or people skills, communication skills, listening skills, time management, and empathy, among others. Teachers believed that soft skills were an important aspect of English language learning, and that outdoor learning provided a space for soft skills development. Based on teachers' reports, two main soft skills relating to 21st century learning were highlighted. They were collaboration and communication.

Many tasks that teachers designed required students to collaborate with one another. One example of collaboration was provided by Teacher D who shared that she got students to step outside the classroom to conduct mini surveys. Students were required to talk to other students, teachers and even school staff to complete this task. Teacher D reported that each student was assigned to carrying out a specific task:

...because they're usually in a group so I always make sure to assign them. So who's the one doing the questioning, who's the one doing the note-taking. So at least the kids they have a job role and I can see that they're apply that job role properly.

In this instance where each student was given a different role, collaboration and cooperation was important in ensuring the task could be completed successfully. This illustrates how outdoor learning provided a space for teachers to teach soft skills. Teacher D added that by assigning different roles to students, leadership and teamwork skills were also fostered: "helps the peers to give a sense of leadership skills and their other peers a sense of responsibility that this is not just a one-man job kind of thing."

Another example of collaborative tasks, which were conducted outside of the classroom, but yet within the confines of the school buildings was the experience shared by Teacher A. She explained taking her students to the library and along school corridors, where a small-scale treasure hunt was conducted.

So I'll give them missions like... "Okay I need something that is... for example, something blue, something big, and something that you cannot move. Okay, go. Go and find it." So I scatter them around. It kind of looks like a bunch of children running around the school, but I sent them on a mission. (Teacher A)

Missions such as these provide opportunities for students to work cohesively and collaborate with one another. The examples provided by Teacher D and Teacher A were those that happened outside the confines of the classroom, yet were still within the school compound. Stadler-Altmann (2021) claims that a schoolyard-enhanced learning environment can offer content, instructional resources, and a change in pace and place. Therefore, primary school teachers who are interested in incorporating outdoor learning as part of their pedagogical practice need not feel that outdoor learning is something that only happens when students go on a field trip or an expedition. It can be something that is even done outdoors, yet within the school compound. In the process, opportunities for enhancing soft skills can ensue.

The second soft skill that teachers talked about was communication skills. A common experience that was shared by all participants is how outdoor learning encouraged English

communication skills which comprised of both listening and speaking skills. Teacher A shared, “the primary skill would be speaking... So it focuses a lot on oral-aural actually. When you have to speak, when you have to listen because when you’re outdoor what is important is the interaction.” Teacher B noticed that, “all four skills are in the classroom but for outdoor learning specifically... speaking and listening are very much present in outdoor learning” Somewhat similar experiences were also shared by Teacher C, based on her interactions with students.

I have seen it before, and I can foresee it in the future that it will boost students’ confidence and when students’ confidence is boosted the first thing that they will display is their speaking skills. You know, they’ll start to speak up more, they will start to try to use new words and yeah. (Teacher C)

One reason that attributed to students’ openness and willingness to communicate was the fact that classes were conducted outdoors where learning was perceived as less-formal and “casual”. Teacher E observed that when lessons were conducted indoors, students seemed to be preoccupied with having the “right” answers to questions. However, when classes were moved outdoors, students seemed to be less inhibited:

Some of them I would say English learners will feel less worried somehow about getting it right as I mentioned before because they are more engaged and more willing to bounce questions, to partake in discussion because in class as I mentioned it’s more on getting it right. ‘Yes, this is correct. No, this is wrong,’ So it doesn’t happen much in the outdoor learning environment. (Teacher E)

This suggests that the physical classroom environment can play a role in affecting students’ willingness to communicate and participate in open discussions with other students. Teachers utilised the “less formal” context of outdoor learning and used this as a means to encourage communication among students. Similarly, in a separate study, it was found that students’ English language speaking fluency developed as students displayed a greater willingness to communicate in English due to increased confidence, interesting ways of learning, and real-life language use (Myhre & Fiskum, 2021). Another example of outdoor learning and soft skills development has been observed by Pimlott-Wilson and Coates (2019) who assessed the intersection between formal and informal learning settings for primary students. They found that outdoor learning could develop future-oriented soft skills which include social skills, self-confidence, and problem solving skills.

Indeed, soft skill development was a significant focus of outdoor learning for teachers in this study and even Atencio et al (2014) mention that outdoor learning has the potential to facilitate both personal and social development among students. The benefits of outdoor learning are yet again reinforced when its influence has been recognised on primary learners’ academic attainment, opportunities for collaboration, and opportunities for exploration (Khan et al., 2020). Here we see the power of outdoor learning in fostering two significant 21st century skills which are collaboration and communication, which in turn can also lead to personal and social development among students. These two skills are important soft skills that can be helpful to students in their future world of work and also as they play a more active role in society.

B. Outdoor Learning as a Space for Developing Thinking Skills

Three teachers felt that outdoor learning enabled students to engage more deeply with thinking. There were numerous experiences which suggested that outdoor learning facilitated thinking, however only one teacher specifically mentioned critical thinking, which is a 21st century learning skill. None of the teachers explicitly mentioned addressing creative thinking in their outdoor lessons, however analysis of data has shown that the practices that some of these teachers incorporate enable students to engage with creative thinking.

Teacher E was the only one who linked her practice with critical thinking. She believed that outdoor learning could trigger curiosity, and when this happens, critical thinking follows:

As I mentioned before, it opens up the window to increase the learner's curiosity, engagement, and critical thinking which will indirectly encourage student to ask question, to look for answers, to discuss, to share opinion with their teachers and peers.

Additionally, some teachers believed that outdoor learning provided students with authentic learning environments, which were helpful to English language learning. In these spaces, students had first-hand experiences with real-world encounters and in some cases, they were provided with sensory experiences and direct contact with the natural world. Teachers observed that when students were within these environments, they were able to engage more deeply in thinking.

Teacher A shared her experience of teaching vocabulary outdoors and provided one example of how students associated meaning to the word "sun":

And then they (students) also learn that when you have sun, meaning that the word is quite warm, filled with heat. So what do you associate it with? "So I get sweaty, I get this, I get that..." So those are the experience that the child is going through, and at the same time, associating these emotions with a name. They don't know the name so when you introduce it to them, "Oh, you're sweaty, must be because you've been under the sun." "Oh, so this is sweat. What I'm feeling right now is sweaty."

This example illustrates how being in an authentic learning environment can not only be a sensory experience, but enables students to learn how to associate different things with one another. As Mann et al. (2022) mention, outdoor learning provides students with experiential and practical learning opportunities which require them to actively learn through direct experience, instead of passively absorbing knowledge which is handed down by teachers. Such a view of passively absorbing knowledge alludes to a 'banking' or transmission model of education where students are regarded as empty receptacles which are to be filled with knowledge by their teachers (Freire, 2005). Therefore, outdoor learning challenges this passive mode of learning, by transforming the teaching space as one that is active, sensory and in-motion.

As previously mentioned, outdoor learning has been found to support young students to connect to their natural learning environment with their senses, which makes learning a multi-sensory learning journey (Wolf et al., 2022b). As seen through Teacher A's example, thinking happens because students were connected to the sensory experience of being warm and sweaty with the

word “sun”. While this may not be seen as “critical” or “creative” thinking, it nevertheless involves a thinking process which requires students to make connections and links with what they feel and the words and language later used.

The types of outdoor learning activities teachers developed also enabled students to be creative. Teacher B explained: “...we re-enact books we’ve read in class outdoors with props to make it more entertaining”, while Teacher E explained how she creatively taught students parts of speech in the English language, which were later incorporated into narrative writing:

And one of the student favourite would be *I Spy* where we describe noun with using like adjectives and we describe what we see. And through those *I Spy* description we use it in our narrative writing so it’s like a creative way of spinning things off.

These examples illustrate that to a small extent, outdoor learning did provide an avenue for students to engage in thinking. One reason was for this can be attributed to the authentic learning environment which enabled students to gain sensory experiences during their language learning classes. Studies reveal that students generally have a positive perception of learning outdoors as it provides students with opportunities for deeper exploration, active learning and authentic experiences (Aflalo et al., 2020; James & Williams, 2017; Shadiev et al., 2018). It allows interaction and engagement with a real environment, which can facilitate the meaning making and thinking process within the English language classroom.

The experiences of these teachers have shown that while developing thinking was present in outdoor learning, it was not something that was at the forefront. Based on these teachers’ reports, there is room to engage more deeply and meaningfully with critical and creative 21st century learning skills within the outdoor space. As Mann et al (2022) observe, outdoor learning has been seen to be more successful in promoting socially oriented 21st century learning skills such as communication and collaboration rather than creativity and critical thinking. This too seems to be reflected through the findings of this study, where teachers focussed on communication and collaboration more instead of on critical and creative thinking skills. Therefore, future research can investigate the link or the effects of outdoor learning and the cognitive dimensions of 21st century learning which are creative and critical thinking skills.

Conclusion

As seen from this small-scale study, there is some openness and receptiveness towards outdoor learning in ELT. This approach has potential for developing the personal and social competencies of students in the 21st century. English language teachers who are interested in taking learning outside the four walls of the classroom can consider this pedagogy as part of their practice. The authentic and informal environment of the outdoor space creates an encouraging and meaningful environment for English language learning.

There arise a few implications for future ELT practice. Teachers can consider adapting lessons which have been traditionally planned for an indoor space and move them to the outdoor space. School buildings should also be made more conducive for teaching and learning to be conducted outdoors. Safety and security are essential if outdoor learning is to be practiced more widely.

For now, outdoor learning in Malaysia seems to be a rather grass-roots effort that happens at the discretion of individual teachers, rather than being supported and funded at a state or national level. Nevertheless, it has a role to play in equipping young learners as they continue to grow and flourish in the world of the 21st century where critical and complex thinking and effective communication and collaboration are required.

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