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MARIA JOSE TREVIÑO GONZALEZ

BRINGING ADVENTURE TO YOUR CLASSROOM

A HANDBOOK SHARING ACTION RESEARCH AND ACTIVITIES IMPLEMENTED BY TEACHERS FROM BOLIVIA, COLOMBIA AND MEXICO

University of CUMBRIA

This book is presented in partial fulfilment of the requirements of the Degree of Master of Arts in Outdoor and Experiential Learning from the University of Cumbria, United Kingdom.

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University of CUMBRIA

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DEDICATION

To Mariana. Thank you for taking wing together in so many adventures, for being an inspiration, and for your unwavering confidence.

To all teachers passionate about learning through discovery: you are transforming education every day.

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PREFACE

ABSTRACT

Public school teaching in many countries, including Latin America, still employ traditional methodologies where learners are passive recipients, although there is a growing interest in introducing active learning methodologies. Research regarding the implementation of experiential, outdoor, adventure-based and place-based education within the school context is continuously growing. This book results from an innovative qualitative participatory research process performed between June and August 2022 with ten teachers working in Bolivia, Colombia and Mexico public schools. The aim was to explore how these methodologies were helpful for their practice and to collaboratively document a digital free resource for sharing with diverse educational communities. After an initial online synchronic session, participants continued working

asynchronously in creating strategies for their classrooms and reporting their applications through various digital tools. As a result, teachers documented and shared 13 activities to include in the book. A final reflexive discussion was conducted through synchronic virtual sessions and asynchronous chat conversations to complete the data review and analysis. All the process was documented in the format of a journal article that can additionally be submitted to a peer-reviewed publication. Findings show results observed in students and teachers, barriers faced, and an influence on future practice, supporting the possibility of replicating similar processes with groups of teachers in the region and nurturing international collaboration. Further research on implementing these methodologies can highlight their positive impacts on students and support the growing need for new strategies that enhance teacher professional development and propel quality education in the region.

INSPIRATION FOR THIS WORK

This work is inspired by teachers and their hard work, especially within the complex contexts of

countries in Latin America. For many years, I have been honoured with the possibility of working with them; I am constantly in awe of their talent, passion, dedication to their students and communities, and incredible creativity.

Teachers have enthusiastically embraced new classroom approaches in every workshop where we have explored experiential, outdoor learning and other active learning methodologies. With scarce resources and a surplus of initiative, they have cleverly concocted remarkable strategies for their students and immensely enjoyed the process.

When the COVID-19 pandemic forced authorities to make decisions on measures limiting the contagion, including school closures (The World Bank, 2021), teachers worldwide undertook the task of transforming all their work into different forms of distance learning. Some regions like Latin America face the additional challenge of limited technology and connectivity, in some cases with none of these available (Kraftl *et al.*, 2022; Vickers *et al.*, 2022). These data strongly echo my personal experience during the lockdown period living in Mexico, where networking with practitioners and teachers internationally became a shared virtual space to

voice frustrations, convey practical tools for distance and online learning, teach peers technological skills, and seek solace.

When sharing our visions of the future of education at the collaboration group that created this work, we all agreed on our hopes of more practitioners sharing and creating adventure in their classrooms, benefitting their students and communities. We hope this book supports their daily design of a nurturing and engaging learning space.

WHY IS THIS A BOOK WITH A JOURNAL ARTICLE AND A COLLECTION OF ACTIVITIES?

When analysing the dissemination of research findings, Brownson *et al.* (2018) sensibly state that 'the methods researchers use to disseminate their findings tend to be passive and traditional among academics and not necessarily those that best connect stakeholders with research evidence' (pp. 104). Some recommended actions include the involvement of stakeholders in the planning of communication strategies, as well as using non-traditional tools such as social media, workshops, blogs and others.

This work is a blend of the latter with the findings published in The International Science and Evidence-Based Education Assessment (ISEEA) by the working group on Education and the Learning Experience (Borst *et al.*, 2022), where they emphasise an

> ... urgent need to promote and support more inclusive and large-scale studies across countries from the global North and global South to understand better how the learning experience is modulated by a number of sociocultural, political and environmental factors across countries (Brown, Mistry and Yip, 2019 as cited by Borst *et al.*, 2022, pp. 43).

A Mexican facilitator passionate about experiential learning, completing a Master's Degree in the United Kingdom thanks to a Mexican NGO's award, created the perfect setting to make these pages possible. While this work results from a small-scale qualitative study, it also bears large-scale hopes of dissemination and driving transformation, one classroom at a time.

Section 1 of this book takes the configuration of a journal article to be submitted as an independent

piece to a peer-reviewed publication with international dissemination to strengthen the academic presence of the multitude of efforts on educational innovations in the region. Whilst the journal article in this book has images and diagrams to explain the process further, the final submission will be redacted according to specific journal guidelines, a version that may differ from this edition. The presented version in Section 1 resembles the closest format to a final journal submission of 9,000 words.

At the same time, Section 1 is part of this Creative Commons licensed publication (Creative Commons, 2022) in the format of a handbook intended for teachers to have a practical resource to share and use.

Section 2 was initially not part of the book but came to life during the closing discussions with the research group. Briefly explained in the Findings segment of Section 1, participants reported as valuable having summarised visual representations of the theory supporting the methodologies, steps to follow and a combination of author recommendations. These materials were created for their use during the design and implementation

processes. Consequently, all the infographics are included in this section for quick reference.

Section 3 responds to the search by practitioners for practical resources, spotlighting the activities created by educators and for educators. A recent systematic review on teacher knowledge in Latin America (Maldonado & Tavera, 2022) revealed a high curricular focus on acquiring literacy skills, mainly through traditional methodologies that tend to prioritise memorisation and directive teaching. While professional training is included among the strategies for developing teacher skills, there is a strong trend among the explored studies (Maldonado & Tavera, 2022) on the development of practical knowledge by practitioners, including collaborative planning and training modalities.

Thus, publishing a digital book in Spanish and English editions with this structure, which can be distributed for free, seeks to achieve two goals: first, to potentially increase the region's academic visibility by disseminating the research process and results in peer-reviewed resources. Second, to circulate the work among teachers in different countries in a format that potentially facilitates the application of strategies in their classrooms -

joining efforts to 'democratise access to experiential education' like the inspiring Kikori App (Kikori, Inc., 2021, para. 2). This double goal follows the recommendations by Mu & Pereyra-Rojas (2015), where they compare Latin American researchers based in the UK and the U.S.A. with peers conducting studies while based in their home countries. Their conclusions emphasise the need to create synergy through collaborative scholarship that involves ‘rigour (sic), relevance and community involvement' (pp. 234). In addition, using active digital repositories such as the ones involved in this book opens the possibility of continuing the collaboration process with participants beyond this publication and including additional practitioners if other related projects arise.

As Caitlin Cahill and Maria Elena Torres (2007) reflect on representation, audience and action in Participatory Action Research, the format and presentation of this work feature the power teachers are exercising every day in their classrooms to transform education. This publication aims to engage the international peer audience when communicating research with a combination of findings and tools they can replicate. These actions hope to provoke further movement in their

classrooms, their exploration of the methodologies, and their approach to learning. Hence, students, families and communities could benefit and expand the transformation of education that can stimulate growth and development. The combination of elements in this book seeks to support this transformation.

HOW TO USE THIS BOOK

This publication is composed of three main sections. The participatory process and research analysis can be found in Section 1, including a short literature review that sustains this work. Section 2 includes the summarised infographics shared with teachers during the study as a quick and practical resource to consult when creating and implementing strategies. Section 3 has a collection of activities submitted by the participant group with images of their implementation and recommendations for other teachers who might be interested in replicating them. In Appendix 1, a table lists the activities and the related methodologies as suggested by their author.

The Sections of this book can act as individual

elements, at the same time supporting each other. For example:

- If you are a group facilitator looking for practical ideas, you can search the activity collection (Section 3) for short instructions and suggestions. Additional references on the methodologies can be found as infographics (Section 2) or by exploring the journal article literature review (Section 1). Also, the results observed by the group during and after their implementation explained in this latter part, can be helpful to reflect on the identified benefits, encountered barriers and further application contexts.
- If, when following the research process and findings on the scholarly publication in Section 1, you need further insight into the group's experience, you can scan Section 3 for examples and photographs and observe in Section 2 the supporting material for their experimentation.
- A glance at Section 2, also downloadable in Spanish and English from the digital repository (https://padlet.com/mache/referenciasaventura), can give you practical resources to refer to and

support your practice. The ways teachers related these to their contexts gave birth to the activities featured in Section 3.

The research project and the collaborative process presented here produced this publication (English and Spanish editions), but hopefully, the conversation continues.

All resources are available for download at: https://padlet.com/mache/estrategiasexperienciales and are free for distribution with attribution. Spreading the word and sparking new ideas are at the core of this work.

For additional comments, questions and ideas, please contact: mache@crecimientoyaventura.com

SECTION 1. ACTION RESEARCH ARTICLE

TEACHERS WRITING A HANDBOOK: QUALITATIVE ACTION RESEARCH ON EXPERIENTIAL, OUTDOOR, PLACE-BASED AND ADVENTURE LEARNING IN BOLIVIA, COLOMBIA AND MEXICO PUBLIC CLASSROOMS

ABSTRACT

Public school teaching in many countries, including Latin America, still employ traditional methodologies where learners are passive recipients, although there is a growing interest in introducing active learning methodologies. This action research study explores the implementation of experiential, outdoor, adventure-based and place-based education within the school context with teacher participants from Bolivia, Colombia and Mexico. Qualitative thematic analysis identified the key themes of: results observed in students, barriers experienced, activity connection across curricula and teacher professional development,

resources and network. Findings provide insight on ways for navigating barriers to create nurturing learning environments, on flexibility and adaptability of the methodologies in public teaching, and suggest implications for future pedagogical practicum, teacher professional development and research in the Latin American region.

Keywords:
experiential learning, outdoor learning, place-based education, adventure-based education, Latin America, public education

INTRODUCTION: LATIN AMERICA, EDUCATION AND THE COVID-19 PANDEMIC

The Economic Commission for Latin America and the Caribbean (Bárcena, 2021) reports the several impacts the COVID-19 pandemic has had in the region, underlining the increasing vulnerability of the population, especially women, children and youth.

Regarding education, factors such as poverty, isolation, violence, lack of access to electricity and internet, low nutrition, short supply of vaccines, loss of carers due to the pandemic, school abandonment and an increase in mental health symptoms have all escalated the complexity of achieving quality education - defined as ‘ensure inclusive and equitable quality education and promote lifelong opportunities for all’ (Project Everyone & Global Goals Campaign, 2022, pp.1). These factors have aggravated the already identified delays. Several reports from United Nations groups (Economic Commission for Latin America and the Caribbean-UNESCO, 2020; United Nations Educational, Scientific and Cultural Organisation, 2020; Working Group on Youth of the Regional Collaborative

Platform for Latin America and the Caribbean, 2021; Duraiappah *et al.*, 2022) show the need for educational innovation and restructuring to close the gaps in these countries.

Educational innovation among teachers in the Latin American region has grown over the last 25 years, as Daniel Suárez (2015) argues, sharing similar characteristics: technical training on teaching as part of a grade level education, but also with a collective, social and co-learning focus, as learning communities. They often present, design and share qualitative, participatory, collaborative and action research efforts deeply connected with the school experience (Murillo Arango, 2015).

This study presents a qualitative action research process performed with public school teachers in the region to explore to what extent and in what ways outdoor, experiential, place-based, and adventure-based learning strategies support their practice. The collaborative effort to disseminate innovations also reflects on the implications for education and teacher development in Latin America.

Theoretical background

For this work, the concept of ‘classroom’ extends beyond the four walls of an educational building, expanding to spaces outdoors where learning can also occur, as Beames, Higgins, and Nicol present in their notable book *Learning Outside the Classroom* (2012). ‘Education’ and ‘learning’ are equivalent in this writing when mentioning the explored methodologies.

The brief introductory literature review presented next provides a framing for the research methodology selected regarding the conceptualisation and operationalisation of Experiential, Outdoor, Place-Based and Adventure-Based Education.

Experiential Education (EE) is a deeply-explored concept, which is conceptualised here as an umbrella term as defined by the Association for Experiential Education (2022):

> Experiential education is a teaching philosophy that informs many methodologies in which educators purposefully engage with learners in direct experience and focused

> reflection in order to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities (para. 1).
>
> Many disciplines and settings utilize experiential education methodologies: outdoor and adventure education, non-formal education, place-based education, project-based learning, global education, environmental education, student-centered education, informal education, active learning, service learning, cooperative learning and expeditionary learning (para.3).

With learning considered as ‘the process whereby knowledge is created through the transformation of experience’ (Kolb, 1984, pp. 41) as a starting point, the Experiential Learning Cycle presents the modes of active experimentation, concrete experience, reflective observation and abstract conceptualization as a revolving and expanding spiral for the learner (Kolb *et al.*, 2014). This approach invites teachers to become facilitators in a role that promotes the connection between the modes (or styles) and invites students to ‘take responsibility for their learning’ (pp. 207). The cycle

has been widely used as a pragmatic cue, applied in diverse ways and through different tools, for discussing experiences, creating learning, and establishing connections between information and its application (Thatcher, 1990; Cain *et al*., 2005; Stanchfield, 2014, Levin *et al.*, 2015).

Altogether with EE, Outdoor, Adventure and Place-based Education are also explored within this research process, expanding specific elements and qualities from each one and transferring to the context of formal, public schooling.

Outdoor Learning (OL) is addressed as an encompassing term referring to 'learning that takes place outdoors' (Lee *et al.*, 2022, pp.14), where the outdoors is defined as 'any open-air, wild, natural, or human-made space' (pp.14).

This approach benefits attitudes, interpersonal and social skills, environmental awareness and self-concept, and academic achievement (Prince & Exeter, 2016; Becker *et al.*, 2017). Beames *et al.* (2012) suggest it 'must articulate properly with the school curriculum' (pp.20) and can occur in different dimensions starting on the school grounds and moving beyond to the neighbourhood, day trips and

overnight excursions. The application of OL 'becomes an important complement to theoretical or text-based learning' (Szczepanski, 2001, pp.19). Recent to this publication, the ISEEA report analysing natural learning spaces (Kraftl *et al*., 2022) summarises:

> Proponents of outdoor educational approaches reference them as effective interventions for a range of outcomes such as increased confidence, positive affect and communication skills, and developing concern for others and the environment, including for all ages in a range of settings. Outdoor learning is also noted for its ability to be adapted to support a range of curriculum subjects at the primary to higher education levels of formal education. (pp.503)

Related findings on the benefits of human interaction with the rest of the natural world in mental and overall health (Becker *et al.*, 2017; Williams, 2021) also support learning in areas outside the walls of classroom buildings.

Teachers wanting to introduce OL in their schools can follow the practical recommendations presented by Juliet Robertson (2017) on steps to design,

organise, implement, assess and share strategies with this methodology.

Adventure-Based Education (ABE) relates to employing the perspective of adventure - ‘an experience that involves uncertainty of outcome’ (Hopkins & Putnam, 2012, pp. 6) - to learn skills, knowledge, and more. Being aware that the concept itself can have implicit colonisation and gendered perspectives (Treviño González, 2022a), the conceptualisation addressed here opens to the psychological and attitude elements of adventure such as ‘simplicity, personal skill development, immersion in nature, curiosity and personal insight’ (Houge Mackenzie & Goodnow, 2021, pp.66), inviting for ‘an adventure mindset’ (Sonigra, 2022).

Among the benefits of ABE are the development of personal and social skills in addition to problem-solving, creative thinking, and reasoning, all through enjoyment, challenge and taking risks (Tannehill & Dillon, 2007; Beames & Brown, 2016).

Schoel *et al.* (1988) propose the Adventure Wave as an ongoing process of ‘Briefing/Activity/Debriefing’ (pp. 31) for sequencing curriculum. In addition, the initial establishment of

group norms through the ‘Full Value Contract’ (pp. 94) and the consideration of ‘Challenge by Choice to provide options, invite engagement and adapt to particular needs (Rohnke, 1989). Along with suggesting debriefing with various tools, elements and resources (Tannehill & Dillon, 2007), all these elements comprise a framework that can relate to different contents and across the curriculum with a flexible and engaging adventurous approach (Beames & Brown, 2016).

Place-Based Learning (PBL) invites us to be place-responsive: ‘being present in and with a place’; embracing ‘the power of story and storytelling’; ‘apprenticing ourselves’ to place, land and culture; and representing the experience (Wattchow & Brown, 2011, pp. 141).

When integrated with school experiences, PBL considers relating to ‘local culture and history’, exploration of ‘non-human assets’ in their surroundings, comprehending local economy, and involvement in ‘local decision-making’ (Smith & Sobel, 2010, pp. 44-54).

Exploring the connection between education and conflict, the ISEEA report (Pherali *et al.*, 2022)

emphasises the power in the role of a school with place-based curricula that is deeply connected to the local and the more ample global realities, by stating that:

> Local educational institutions could become ‘centres of community’, facilitating sustainable development, engaging with the causes of conflict and developing innovative experiential learning models that bring the reconciliation know-how of a community into the classroom and take that knowledge into communities and society at large. In this regard, school-community partnerships are crucial so that learning and teaching in schools and community-based experiences are connected (pp.383, single quotes in original).

The following segments will contextualise education in the region and countries participating in this study, including if and how EE, OL, ABE and PBL relate to their current public-schooling practices.

Experiential, Outdoor, Adventure-based and Place-based Learning in Latin American classrooms

While each country, province and community share particular and diverse characteristics and a broad generalisation could be simplistic, many public schooling systems in the region do share a proclivity of remaining highly traditional, which prioritises mechanical memorisation for closed-question evaluations and directive teaching (Maldonado & Tavera, 2022). In this context, methodologies such as EE, OL, ABE and PBL are employed in varied depths and frequencies, as will be discussed in the following paragraphs. Still, the traditional schooling approaches prevail (Flook *et al.*, 2022).

For example, an extensive literature review on creativity and outdoor education in primary schools (Guerra, Villa & Glăveanu, 2021) that spans over 25 countries only found one similar research from Colombia. Literature on experiential and outdoor education in Spanish that does not refer to corporate training is not ample (Builes Jaramillo, 2003; Díaz Barriga, 2006; González Aja & Irureta-Goyena, 2015; Robertson, 2017; Baena Graciá,

2019). This issue further shows the imperative need for working with practitioners in the region to innovate practice, document implementations, share results and, with this, reach a broader education community in Latin America.

There are several efforts, disseminated through journals, conference papers and degree theses, to introduce EE in public schools at all levels and grades in countries in the region, like Argentina (Vignatti *et al.*, 2018), Brasil (Amorim Souza *et al.*, 2021), Chile (Lagos García, 2012), Colombia (Molina *et al.*, 2016), Ecuador (Espinar Álava & Vigueras Moreno, 2020), and Peru (Céspedes Lainez *et al.*, 2017; Moscoso Ríos, 2020). Some also refer to OL (Yalta Benavides, 2022), ABE (González-Rivas & Baena Extremera, 2021; González-Rivas *et al.*, 2022), and PBL (Arboleda Piedrahita et al., 2019) in Peru, México, Colombia and Bolivia.

With the intention of being more specific in this exploration, the focus will be on Bolivia, Colombia and Mexico, which participated in the study, matching methodological approaches in their public education models and exploring the guidances emitted by the governments for reopening after the

COVID-19 pandemic lockdowns.

In Bolivia, the educational model adopted in 2010 focuses on social-community productivity, which has practical and project-based learning where decolonisation and the re-valorisation of ancestral knowledge are fundamental elements (Chavez, 2022; Hastie Falkiner, 2014). These elements, joined by the active participation of the community in the educational process, the autonomy teachers have on parts of the curriculum, and the development of educational materials tailored to the languages and cosmovisions of the different indigenous nations in the country (Ampuero Zeballos, 2021; Copa Baltazar 2021, Ministerio de Educación Bolivia, 2022a), share characteristics with PBL practices interconnecting local history, culture, environment, identity, economy and other community topics and opportunities (Smith & Sobel, 2010). EE and OL also take a role when addressing several subjects through projects that involve exploring their communities, although they do not use the same terminology (Ministerio de Educación Bolivia, 2022b). Among the suggestions for teachers to reactivate schools after the pandemic, the Ministry of Education (2022b) mentions that the expository method is not recommended for distance

learning, focusing more on projects, family activities and others.

Colombia has developed a public education model based on the realities and challenges of the territories, where schools have the autonomy to adjust curriculum and adopt methodologies and content according to the identified needs (*Ley 115*, 1994). The regulations have been evolving and formalising a Flexible Educational Model with several programs tailored for students experiencing different vulnerabilities (Ministerio de Educación Nacional, 2016).

In government regulations, guides and other publications from Colombia, descriptions like situated education (Díaz Barriga, 2006; Gil-Rojas, 2020; Ministerio de Educación Nacional, 2022a; Ministerio de Educación Nacional, 2022b), learning in context (Amado Montenegro *et al.*, 2022) - including ethno-education (Ministerio de Educación Nacional, 1998a; Flores Hinojos & Palacios Mena, 2018) -, and environmental awareness where schools have autonomy in content adaptation and introduction of methodologies (*Ley 115*, 1994), share qualities with PBL. EE has been a widely explored topic in learning and schools (Álvarez

Massi, 1995; Urrutia, 2010; Builes Jaramillo, 2003; Ríos Beltrán & Cerquera Cuellar, 2014). Play and exploration take an active role in the recommendations for reopening schools after the pandemic (Ministerio de Educación Nacional, 2021). OL practices can be identified in environmental education (Ministerio de Educación Nacional, 1998b; Miñana Blasco *et al.*, 2012), with some mentions related to the promotion of the outdoor classroom (Delgado, 2021, Aprendiendo Al Aire Libre, 2022).

Mexico declared new study plans in 2022, considering the challenges faced by the pandemic and promoting four pillars: curricular inclusion, community as the centre of the learning process, revalorisation of teachers, and the human right to education (Secretaría de Educación Pública, 2022a). The emphasis on a community-centred focus, where teachers can adapt content to the social, cultural, territorial and educational realities of students (Secretaría de Educación Pública, 2022b), altogether with the availability of textbooks in indigenous languages (Comisión Nacional de Libros de Texto Gratuitos, 2022), all appear to have similarities with PBL principles. Some of these textbooks and other strategies in rural communities

have implemented school food gardens (Secretaría de Agricultura y Desarrollo Rural, 2018), thus applying some elements of OL. The new program will be implemented in staggered stages while the previous plan continues to operate (Secretaría de Educación Pública, 2022a). The current National Strategies developed for reopening schools and educational guidelines for teachers (Secretaría de Educación Pública, 2022c; Subsecretaría de Educación Básica, 2022) emphasise project-based strategies, and mention the use of games for learning, which can have a relation with EE although with different terminology.

METHOD

Participatory Action Research (PAR) with a qualitative interpretive perspective in this study allows for exploration of the individual and group experiences, where the teacher-researchers could reflect and act upon their practice (Norton, 2009).

As defined by Wadsworth, 'PAR involves researchers and participants working together to examine a problematic situation or action to change it for the better' (1998, as cited by Kindon *et al.*, 2007, pp. 1). In this research process, the group

explored to what extent and how outdoor, experiential, place-based and adventure-based learning strategies would support their practice in public school settings.

The method was approached with a flexible perspective (Frisby *et al.*, 2005), aiming to adapt to the barriers that could limit participation, such as time availability and access to technology. Combining the perspectives of Kurt Lewin (1946), tailored for the teacher audience (Norton, 2009; Hopkins, 2014), this study included five stages: Planning, Acting (Implementing), Collecting and Sharing Data, Reflect and Analyse Data, and Plan Further Action. Due to the time constraints of this work (detailed in the Limitations section), only one iteration was completed, and participants collaborated with their perspectives on possible future actions to implement beyond the scope of this research.

Participants also joined the process of giving validity and legitimacy to the research, following constant communication as suggested by Kemmis *et al.* (2014), where participants are

> ... free to decide individually, for themselves (a) what is *comprehensible* to them; (b) what

> they believe to be *true* (in the sense of accurate) in the light of their own and shared knowledge; (c) what they believe to be *sincerely* stated (authentic; not deceptive), and (d) what seems to them to be *morally right and appropriate* under participants' current circumstances (pp. 36, italics in original).

These elements were carefully considered when creating the synchronous and asynchronous public spheres where conversations happened, as explained in the subsection below titled *Action research with teachers*.

Participants

Participant registration was open to public school teachers from a convenience sample. An additional condition allowed the inclusion of those with an active student group during the research period, either in face-to-face teaching or in any distance-learning modality.

The University of Cumbria granted ethical approval. Following ethical policies (University of Cumbria, 2022), the invitation message included research details, and registered individuals were

informed of the study stages and the confidentiality and anonymity of responses. Participants also had the option to list their names as collaborators in the article acknowledgements and as authors of their activity submissions on the final books. Participants provided informed consent and were notified of the option of withdrawal without consequence. All data excerpts in the analysis and findings show participants with a research code.

The participant group comprised ten teachers, ranging from pre-school to secondary level. Seven were from Mexico, two from Bolivia and one from Colombia, with their schools located in communities ranging from towns with less than 10,000 inhabitants, to larger cities within metropolitan areas as big as over 5 million people (DataMéxico, 2022; Gobierno Autónomo Municipal de La Paz *et al.*, 2022; Medellín Cómo Vamos, 2021). From the teacher group, two participants initially informed of their withdrawal during the first weeks of the study but chose to remain passive during the process (meaning they did not report the implementation of activities) and did participate with comments and reflections, which were included in the data analysis. All student groups except one had already returned to continuous or intermittent face-to-face

teaching after the COVID-19 suspension. The remaining group reported being in distance learning and only had a few days of face-to-face activities due to vandalised facilities.

Action research with teachers

The study was conducted during an eight-week period where teachers could design and apply their activity ideas with their students, according to their different school calendars. Participants first joined an initial virtual synchronous session on Zoom (Zoom Voice Communications, Inc., 2022) to initiate group discussion, co-design the research process and obtain summaries of reference material in a graphic format available on a digital board (Wallwisher, Inc., 2022). A Whatsapp group (Meta Platforms, Inc., 2022) was created after the session to share documentation, respond to queries and sustain the conversation asynchronically.

During the first session, the group completed a short reflection on the group agreements on how we could support each other during the process, establishing a Full Value Contract (Schoel *et al.*, 1988, p.94) adapted to the particular focus of this work. Afterwards, participants received summarised

information on EE, OL, PBL and ABE and details regarding the research and publication process. All topics discussed also recognised the immense cultural diversity of the communities, regions and countries involved in the study, to acknowledge that 'learning, curriculum and pedagogy have been shaped by factors such as colonization, resulting in structural inequalities around the world' (Wals *et al.*, 2022, pp. 554), also having gendered perspectives (Treviño González, 2022a).

After their application, teachers used asynchronous digital channels to submit the activities created, pictures or videos of the students during the exercise, and personal reflections on the experience. Activities and images were incorporated into a handbook format, sent through the group chat and uploaded to a digital board for dissemination and comments. The final editions in Spanish and English will also be distributed through these and other channels.

Participants met in small groups for a final online synchronous session to discuss findings, analyse their experience and envision possible further steps. The session was planned to fit their corresponding school calendars and ensure this

meeting did not occur during their programmed breaks. Due to the different calendars, teachers chose a session date and those who were unable to connect shared reflections through the group chat or individual conversations.

Data collection throughout the process used various tools, acknowledging the time and technology availability constraints teachers could experience. The videoconferencing platform video recordings, images, videos, text and voice messages sent on the mobile chat app, written responses on the digital activity registration form and information on the digital collective board comprised the data collection strategies. This procedure allowed for a hands-on approach to the research, with quick access to information exchange through mobile devices, practical submission of ideas, and continued conversation throughout the weeks. All data was transferred into notes for further categorising during the analysis.

Data analysis

Qualitative thematic analysis allows a rich understanding of the research topic, considering the participants' perspectives (Norton, 2009). Data from

the videoconferencing sessions, text and voice messages, individual follow-up calls, and individual reflections submitted with activity implementation were anonymised, transcribed and coded for this analysis method. All transcript excerpts included are translated by the author unless otherwise stated.

The implemented process for thematic analysis followed the steps suggested by Norton (2009): Immersion, Generating categories, Deleting categories, Merging categories, Checking themes and Linking themes before Presenting results. The progress from data immersion to merging categories was shared with and validated by the participant group (Reason & Bradbury, 2007).

FINDINGS

The qualitative thematic analysis revealed four main themes, which disaggregate into several subthemes, as presented in Table 1. Each subsection presents supportive representative data excerpts.

Theme	Subtheme
Results observed in students	a. Emotional responses b. Display of social-emotional skills c. Demonstration of learning
Barriers	a. Institutional b. External c. Personal for students d. Personal for teachers
Activity connections	a. Methodologies b. Curricular content and social-emotional goals c. Applicability across curricula d. Evaluation
Teacher professional development, resources and network	a. Teacher skills b. Intention to continue implementation c. Co-creation experience d. Practical resources e. Participation and agency

Table 1. Themes and subthemes

Results observed in students

Participants recorded the *responses* they observed *in students* during the activities. These results relate to *emotional responses* to the methodologies, *display of social-emotional skills,* and *demonstration of learning*.

The emotional responses to the methodologies reported by teachers were happiness, excitement and engagement for the activities presented, as shown by testimonials like: ‘I saw excitement when I told them we would go outside and play a game, their eyes changed, their faces’ (T1), ‘students were motivated and went through [the activity] several times, the next day they asked if they could repeat the game’ (T8), and ‘they were all very happy and wanted to visit more nearby institutions’ (T5).

Collaboration, support, respect, communication skills, leadership and group integration are among the *social-emotional skills displayed* by the students. However, some participants mentioned these as later responses, and reported initial barriers due to the lack of interaction from the school closures during the pandemic. Some excerpts that illustrate the social-emotional skills

shown by students are represented below:

> ‘They all got involved and organised by teams to complete the task together... some took leadership and then took turns leading, they came together, listened to each other and were excited about completing the challenge’ (T3).

> ‘The student can take responsibility for their own education through three specific attitudes: confidence in their abilities, respect for their own work, welcome and listen to all participants in the activity’ (T2).

Teachers also registered their observations on how students *demonstrated learning* through the activities:

> ‘I liked that at the end when we were asking questions about different topics reviewed during the year, they responded easily’ (T4)

> ‘I could see they had greater comprehension and interest in reading. Sometimes they have difficulty grabbing a book and reading it, but here I could see greater depth, comprehension, analysis’ (T10).

Barriers

The theme on barriers is subdivided into *institutional*, *external*, and *personal for students and teachers*.

Institutional barriers are related to mentions of lack of proper infrastructure for outdoor activities, lack of transportation, scarcity of materials, and the administrative process for authorising and coordinating activities outside the school building, such as site visits. Two of the three teachers that implemented an activity beyond the school grounds reported overcoming hurdles like communication with other teachers or organising an activity afternoon to avoid bureaucracy and liability concerns.

The administrative processes teachers manage are also related as barriers to adopting the methodologies in their practice:

> ‘I think that for teachers to turn around and see these kind of activities is that sometimes we are saturated with paperwork, one as teacher has to be proving that you worked... this is a lot of things like evidences that are requested and sometimes we do

not give importance to these activities and methodologies and we do not articulate them with content... many contents are addressed on written activities, because you have to have an evidence of your work and create a student portfolio' (T8).

Also associated with the administrative processes, lack of time can be identified as a frequent element that hinders the implementation of EE, OL, PBL and ABE methodologies. Many participants reported motivation and enthusiasm for designing, applying and sharing more activities, and their frustration and sadness for not being able to do so within the period of this study ('it is a shame that we have so much to do and cannot deepen in so many more things' -T2; 'a barrier is the bureaucracy, to have extra time for procedures, stamps [authorisation for day trips]' -T5; 'I would have liked to apply more activities, but will do so when returning to school' -T6; 'It took me a long time to send it [the activity] because I have so many things to do' -T8; 'It takes more time [to do these activities], they [the students] felt a bit hurried' -T10).

External barriers include factors like insecurity, extreme weather, and the pandemic, which influenced the possibility of implementing EE, OL,

ABE and PBL in schools. Some schools are located in communities with high levels of insecurity and violence (Dalby *et al.*, 2022): ‘we cannot take the group out because of kidnappings’ (T4). Many participant regions experience extremely hot weather and thus adapt their activities for a short period. This condition was reported as aggravated by the lack of outdoor learning facilities, the availability of shaded areas or the need for proper schoolyard maintenance (trees removed or neglected school grounds). Teachers expressed a need for more shelter structures for outdoor activities.

Among the external barriers suggested by this study is the impact the school closures have had on student learning and behaviour. Participants reported students ‘did not know each other because we had not had face-to-face lessons, so they did not trust each other’ (T1), having ‘children on 4th year showing a [knowledge] level of year 2’ (T4), and being overwhelmed by mentioning ‘they came back with so many delays, that I thought “how in the world are we going to regularise them?”’ (T4), exemplifying the impacts on socialisation, interaction and learning caused by the pandemic in the population participating in this work and the

struggles teachers face.

It is relevant to highlight the solutions and alternatives to institutional and external barriers manifested by participants. In addition to the distance learning formats implemented during the pandemic when school attendance was suspended and the adjustments for reopening, teachers reported and suggested adaptations to achieve the intended goals. Examples of actions performed during the research process were: combining timeframes playing outside with processing indoors to navigate extreme weather, funding transport by joining institutional funding with family contributions, compensating for lack of materials by collectively gathering repurposed elements, adapting games to need fewer materials or using natural elements in them, and programming an activity during the evening with family members included, to increase safety due to insecurity in the region and to decrease institutional paperwork requirements.

Personal barriers experienced by students were referred to as related to the impacts of the pandemic, such as that they did not know each other and this stalled participation, collaboration

and support, and delays in learning due to the pandemic (‘they were quiet at first, fearful of participating because they did not know the answers’ - T1).

The *personal barriers experienced by teachers* appear to be related to the cultural prevalence of traditional teaching (‘The majority of the teacher staff... remain with the conventional, it is difficult that they would use playful activities, that involve movement and being in groups’ -T5). There was also a perceived lack of ability to efficiently perform the activities they designed (‘I had doubts about this going well... of being able to adapt it [the activity]... I was afraid of making a mistake, that the game did not help them understand or made them angry’ T10).

Activity connections

The concept of connection in this category includes the goals and contents for which the activity was designed and the applied methodologies, adding those topics that were observed or related during the implementation, documentation and research group discussion. This theme comprises the *methodologies* implemented, the *applicability across*

curricula, the interaction between *curricular content and social-emotional goals* achieved, and the role of *evaluation*.

Participants submitted documentation for 13 activities, shown in Table 2, indicating which of the explored *methodologies* they implemented. All participants self-reported considering at least two methodologies in their design, which the group validated.

All participants reported results both for learning mandated *curricular content* and addressing several *social-emotional goals* in their activities, where engagement and collaboration have a higher frequency of mentions, as shown in Figure 1. Some activities were designed and implemented as evaluation tools replacing traditional desk assessments, while others were used for reviewing, expanding or introducing topics.

All activities were designed for face-to-face teaching, including the only group that remained on a distance modality but had an evaluation process at the school. Several participants mentioned the relevance of boosting social interaction due to the impact of the pandemic, powerfully summarised by

Activity Name	EE	OL	PBL	ABE
Ability Volcano	X			X
Academic Rally	X	X		X
Acid River	X	X	X	X
Cleaning the Reservoir	X	X	X	
Cuau's Eggs	X	X		X
Express Presentation	X		X	
History Stretch	X	X		
Learning about our institutions and their historical archive	X	X	X	
Multiplying bottles	X	X		
Steps We Go	X			X
Stop the War		X		X
Which animal is it?	X	X		
Which is our place in the neighbourhood?	X	X	X	X

Table 2. Activity matrix with related methodologies

Figure 1. Wordcloud of activity connections. The more frequent topics mentioned are shown in a larger font.

T3: ‘two years of distance learning did great harm, in social and social-emotional [skills], they do not know how to get along... Knowledge comes in second place now, and the human issues are a real challenge’.

Several participants acknowledged the *applicability across curricula*, with testimonials like: ‘these [activities] could be applied to different subjects, excellent activities, all of them very creative and complete’ (T7), ‘all the methodologies are connected, from one activity we can enrich the four of them’ (T4), and ‘this activity is easy to apply,

with simple materials, and can be used for any subject or topic' (T3).

When related to *evaluation*, teachers reported positive results both in learning and in the assessment process:

> 'Working in teams and asking questions, I could see if the student was nervous because of taking a test, or if they really did not know the answer. Those with low grades that had additional evaluations, were less nervous' (T10).

> 'It was interesting to identify the level of each student, it became an evaluation tool in a practical context. It is not the same to evaluate with a piece of paper inside the classroom, than with an activity where the student has to apply their knowledge' (T8).

Teacher professional development, resources and network

Participants reported strengthening their *teaching skills* and developing an *intention to continue implementing* the methodologies explored. The *co-creation experience* and *practical resources* were also reported as relevant, while there are additional findings regarding teacher *participation* and

expressions of their *agency*.

Teachers had the opportunity to strengthen *skills* by receiving resources and feedback from implementing their designed strategies in their classrooms, improving practice (Preston & Griffiths, 2004). Some excerpts from reflections that highlight their learning and positive perception of the methodologies are shown below:

> ‘The application of the methodologies has allowed us to move away from traditional methodologies for transmitting information and for students to learn by doing, making them live their learning processes’ (T9).
>
> ‘This has been a learning experience as a teacher, I can see that by designing, the group feels engaged, motivated, and I can guide and orient; we teachers cannot stop designing and sharing’ (T6).
>
> ‘We have to get out of the classroom more; we do not have to be 100% inside’ (T4).

Many teachers reported their *intention to continue implementation*, sharing and creation as part of the results of their experience:

‘I am thinking now of new improvements, change seating arrangements, have “creative corners” and give them more autonomy to create’ (T4).

‘The experience with the group of teachers was very interesting and useful. What was most valuable for me was being in contact with peers and sharing experiences and activities. In this way, we created a good team for posterity and to stay in touch’ (T3).

The format of the sessions, reference information and activity dissemination were also mentioned as facilitating *practical resources*:

‘The first session helped me be aware of the progress of the topics and get motivated to apply them’ (T4).

‘We now have a repertoire of what we can use according to what we want to teach, to create, apply and share, and at the same time to adapt to our students’ needs’ (T6).

‘The information [presented] was very accessible, from many different sources and already delivered to us in a ”silver tray”’ (T8).

‘The transmission of methodologies, the interactive explanation and the use of technology [in the

sessions and communication channels] facilitate access to information or to review large chunks of data in a short time' (T9).

The brief *co-creation experience* during the research period appears to have created a lasting impact, where participants could share and feel respect for their journeys and contexts, with a welcoming creative conversation and favouring mutual learning. Many participants in the work represented in this paper identified group collaboration as a motivating and enriching factor, where the disposition to share and compliment others, and the supportive environment, seem to be valuable elements in the process:

'I loved the team we made with peers and teachers interested in this kind of experiences and activities, out or inside the classroom. There is a huge variety that one does not know of until you contact others that apply motivating activities, that capture the student's attention and that can be applied at all ages' (T3).

'It was cool (sic) to have different points of view from teachers from all positions, primary, secondary, special education... all of them were important' (T8).

> ‘Exchanging the experience of applying the methodologies in different contexts and countries made this [process] richer’ (T9).

An unexpected finding was the relatively quiet *participation* of two teachers that withdrew during the first weeks of the creative process. They remained in the group chat and gave short feedback or appraisal of the distributed information. In personal follow-up exchanges, they joined the overall results concerning new learnings for their practice and the visualisation of future application of strategies in connection with specific curricular contents they teach. They also joined the sadness expressed by other participants, related to not being able to participate more actively by sending their strategies. This appears to indicate their interest in the methodologies and the collaborative process, also evidencing the workload they experience, which caused their initial retraction.

Another finding suggests that when teachers engage with the methodologies, they could increase their *agency* and actively disseminate and share with others ideas and suggestions. Teacher initiatives beyond the scope of this study include one participant that involved more teachers at their

institution in creating a rally with diverse activities for end-of-term evaluation (Academic Rally in Table 2), replacing traditional written tests for diverse subjects. Another participant shared the designed activity and its results at the official Monthly Teacher Meeting (Secretaría de Educación Pública, 2018) and received positive feedback from colleagues. These propagation efforts can become an asset for future collaboration projects.

DISCUSSION

Findings suggested by the qualitative data analysis give insight into how teachers *navigate the barriers* faced and the *flexibility and adaptability* with which teachers implement the explored methodologies. These elements appear to signal implications for pedagogical practice innovations and future possibilities in teacher training and educational research.

Navigating barriers to create nurturing learning environments

The qualitative data suggests that while teachers identify barriers to introducing EE, OL, PBL and

ABE in their classrooms, positive results support the efforts to recover from delays amplified by the school closures during the pandemic. The educational impacts of the pandemic are yet not completely understood (Renna Gallardo, 2020; Working Group on Youth of the Regional Collaborative Platform for Latin America and the Caribbean, 2021), but there is a shared concurrence on the need to create new interventions to address urgent educational needs (Bárcena, 2021; Harvey *et al.*,2021; Singh *et al.*,2021; United Nations Educational, Scientific and Cultural Organisation, 2020; World Bank, 2020). EE, OL, ABE and PBL are increasingly being mentioned as alternatives for enhancing learning and creating inclusive environments (Harvey *et al.*,2021; Kraftl *et al.*, 2022).

Other studies on barriers faced in introducing these methodologies in schools have shown similar findings as the ones reported here regarding teacher perception, institutional and environmental barriers, and a culture centred on teaching inside (Waite, 2020; Oberle *et al.*, 2021). Teachers in this collaborative research appear to navigate around the barriers and create alternatives for their classrooms, interconnecting curricular content and

cognitive learning goals with the development of social-emotional skills.

Some of the results observed in learning relate to increased depth in understanding and evidence of recalling previous information, less stress during the end-of-year evaluation when activities were playful or collaborative, and increased interest in reading and exploring contents. These outcomes join the reported improvement in socialisation, communication, leadership and collaboration skills, showing a possible relation to an increased teacher focus on social-emotional skills and overall mental health, which is reported as concerning as academic achievement. This matches recent international findings on pedagogical practices (Wals *et al.*, 2022), underlining the benefits of implementing EE, OL, PBL and ABE in promoting well-being and mental health. Exert & Davidson (2021) mention outcomes such as 'resilience, dealing with uncertainty, mitigating the effects of anxiety and stress, coping with depression, and reducing a sense of hopelessness/ helplessness' (pp.108). Sue Waite (2020) mentions the relevance of 'children's health and well-being, developing social, confident, and connected people, and care for others and the environment' (pp. 6) as a result

of OL practices. The scope of this work allows us to take a glimpse of how teachers in the region are navigating the barriers faced and with limited resources and challenging contexts, perseverate in creating nurturing learning environments ('youth that attends public schools have no resources, they come eager to learn and do not achieve it. I feel committed to my people, those who do not have the opportunity to go to a private school where they have more and constant assessments. I want to help with what I can and up to what I can' - T10).

Flexibility and adaptability of methodologies in teaching

In addition to the positive outcomes of implementing the explored methodologies in schools as discussed above, different authors emphasise the applicability of EE, OL, ABE and PBL across curricula (Smith & Sobel, 2010; Beames & Brown, 2016; Harvey *et al.*, 2021; Kraftl *et al*., 2022). While different countries give specific emphasis to experimentation on science or relate outdoors mainly to physical education and environmental learning (Ministerio de Educación Nacional, 1998b; Secretaría de Agricultura y Desarrollo Rural, 2018; Ministerio de Educación Bolivia, 2022b), teachers in the

participant group presented an ample variety of subjects covered and goals achieved with their strategies.

This particular finding from the research group in this context seems to be different from an international study that reported ‘staff uncertainty about linking curriculum’ (Waite, 2020, pp. 18) as a common barrier among teachers implementing school-based outdoor learning. The open approach to the methodologies in this research process, where teachers could select which ones to use and adapt them to their particular needs, could have facilitated the content-methodology connection explored in the findings while promoting the exploration of perspectives on replicating, expanding or scaling similar efforts.

Implications for pedagogical practice, teacher professional development and research

The findings presented in this study cannot be generalised to all communities and regions but shine a light on the possible benefits of increasing the inclusion of these methodologies in public schools. Additional actions can be taken to develop

teachers' skills to design and implement EE, OL, PBL and ABE strategies. If the trend observed in the current research results continues, where teachers link specific curricular content with social-emotional goals in their activity design, the benefits of these methodologies could increase exponentially. These actions would potentially require the involvement of educational authorities in any scope, from school principals to national representatives. Introducing policy changes, such as modifications in current formal government-funded teacher training programmes - a suggestion made by participants - would probably create a lasting impact (Aldana-Zavala *et al*., 2021).

Drawing from the experiences shared by the group during the research process and the evolution of educational policy in their countries, a possible route to amplify the adoption of EE, OL, PBL, and ABE approaches could be to identify unique local, historical, cultural elements that enrich teaching practices (Bentsen *et al.*, 2017), adding a decolonising perspective aimed at recovering local and ancestral knowledge (Ministerio de Educación Nacional, 1998a; Ministerio de Educación Nacional, 2016; Bell, 2022; Comisión Nacional de Libros de Texto Gratuitos, 2022) within complex and unique

realities (Wals *et al.*, 2022). The methodologies explored connect to territory, family, and traditions, and embrace different ways of learning (Kraftl *et al*., 2022; Pherali *et al.*, 2022) in non-traditional formats; teachers in the participant group embraced them with enthusiasm, finding ways to adjust strategies that met their needs ('This [process] enlivens, to see if I can take it up and do new things. It is a good scenario to implement and give suggestions, listen to them, move forward' - T10).

It is momentous to further transform pedagogical practice and teacher professional development in Latin America. Cano & Ordoñez (2021) reflect on the need to develop research competency and strengthen pedagogical knowledge beyond didactic and methodic models. In the ISEEA report on the teaching profession, Ávalos *et al.* (2022) analyse how the pandemic exacerbated inequalities and heavily impacted education. Teachers lack technological skills, access to tools and mastery of innovative pedagogical perspectives, and they need systematic support with policy, budgeting, working conditions and overall well-being improvements that expand beyond the schools (Perdomo, 2022; Vickers *et al.*, 2022). Innovation in research and practice related to this work can be scaled in

various forms, with teachers from different educational levels, geographical regions and curricular mandates creating together, involving authorities, creating partnerships (Breunig, 2017) and driving grassroots change. This approach could tap on their power for creating connections, sharing and receiving support, as the small example shown in this work.

Rebecca Bilous *et al.* (2018) reflect on a similar experience on collaborative curriculum design with an international group of practitioners, emphasising the importance of relationships, generosity and openness. A participatory culture where sharing and reflecting is highly valued is vital within schools and practitioners (Ávalos *et al.,* 2022). Participants echoed the force of a collaborative, open sharing process when envisioning ways to continue developing their skills, where they shared ideas combining additional training and collaboration groups:

> ‘The most relevant [element] is that activities are designed in collaboration with other countries, and they can be applied coherently, perfectly, even more with the experience of those who already performed them. Everything can be replicated’ (T2).

‘This is how it should be between colleagues, these kinds of interactions that strengthen bonds and cooperation among peers to apply innovative activities in our work centres, and share what has been successful with our kids’ (T3).

‘We need a transformation, to embrace what is coming, not remain comfortably in my classroom but place them [students] at the centre’ (T4)

‘We need spaces to share ideas, reinvent ourselves, have curiosity and try things to see how they go’ (T5).

‘We should have in teacher training schools a subject or course that covers this, on education that seems informal but is super formal, super thought, with directed goals’ (T8).

Participants were actively involved in discussing the future implications of this work. In one of the closing sessions, they brainstormed and suggested creating a teacher and school contest, open to international participation and that gives credit to practitioners and their institutions and showcases their actions, either through awards or small prizes. The idea received positive feedback when shared with other group members (‘it would totally stick (sic)’ - T8). Thus, this approach suggests a

grassroots movement without directly involving authorities from education departments, but with the possibility of engaging them along the way ('when disseminating the contest, our regional supervisor could support with a more formal invitation to the event' - T5). Given the relative autonomy schools have in their practices, as discussed in previous sections, in addition to the possibility of creating a collaborative and supportive environment with participants - aimed to replicate the feeling of community shown in the present work -, this initiative to escalate the introduction of EE, OL, ABE and PBL in public schools could be a future road to explore in the region.

Limitations

Time availability was one of the more significant limitations of this study. At the time of the action research process, Mexico schools were in the last weeks of their calendar year (Secretaría de Educación Pública, 2021) with extended final examinations in process due to the COVID suspensions. Bolivia schools had the Pedagogical Break during part of July (Ministerio de Educación Bolivia, 2022c), and Colombia (Secretaría de Educación Medellín, 2022) was at the beginning of

their second semester. Group participants from Mexico also reported short school suspensions when positive cases were identified. These occurred during the Acting (Implementing), Collecting and Sharing Data phases of the presented research cycle, and limited the time available for meeting, planning, implementing and documenting, in addition to the overload of tasks teachers usually manage and that has been aggravated due to the pandemic (Ávalos *et al.*, 2022).

Thus, attendance at the videoconferencing sessions decreased or split into smaller groups at different times, and a personal follow-up was included either by phone interviews or chat conversations. Future research designs can further adjust to the calendar and time constraints active teachers face during the school year, either by introducing data collection within mandated training as recommended by the participants or by employing additional creative formats such as the international contest the group proposed to increase participation and dissemination.

Also, related to time constraints and the scope of this work, the action research process in this paper

completed one iteration of the action research cycle (Lewin, 1946), possibly limiting the depth and expansion of the identified themes and outcomes. Further research with a longer time frame could show additional findings and could also be connected to research intended for Grounded Theory (Glaser & Strauss, 2017).

An additional element limiting this research, related to the scope of this work, was the direct inclusion of additional stakeholders. Students participate indirectly by their involvement in the designed activities, and teachers subjectively register their perceptions regarding this participation. School authorities and family members also join indirectly by giving permission for activities, participating in them, or attending the planned sessions and providing their feedback to the teachers actively involved in this work. As commented in the Methodology section, this work is considered participatory-action research because of the teachers involved and the reflection process created (Norton, 2009), and a more extended research process could assertively include more stakeholders.

Another limitation is that responses may reflect the

behaviour of practitioners already engaged with the methodologies due to previous exposure through training or personal experiences. Half of the participant group included teachers that had attended an experiential education training in 2019 with the author and commented during the group sessions that they continue to apply their learning in their work. A potential positive angle to this is that they appear to have continued using experiential education strategies throughout these years, suggesting the potential impact a short training can have on practice. Two additional participants revealed during the group sessions that they had been Scout members and referred this impacted their approach to learning. Scouts is an international movement with a renowned heritage and foundational influence on the topics addressed in this work (The Scout Association, 2022; Warren *et al*., 2008).

The small-scale qualitative research using a non-probability convenience sample (Cohen *et al.*, 2011) implies there are no intentions of generalising the characteristics of all teacher populations in the participant countries. Results from this study may apply to similar situations as the ones portrayed in

this work. Essential components for the research process, such as trust-building, motivation for continued participation, role clarification, accessibility for teachers that may face barriers, and carefully considering and attending to their learning needs, were integrated into the process, as emphasised by White *et al.* (2004). These components possibly were facilitated by the sampling type and research method, as participants decided to join the process and collaborate with the ultimate goal of disseminating the final work by publishing through several channels.

CONCLUSIONS

The starting point for this action research project was to explore to what extent and in what ways outdoor, experiential, place-based and adventure-based learning strategies support teachers in Latin American public education. Among the key findings are navigating barriers, identifying learning and social-emotional skills outcomes, and applying the methodologies for diverse goals and contents, with an overall positive impact on teachers. This international collaborative work, joined by practitioners from Bolivia, Colombia and Mexico,

contributes to the constant search by many practitioners for pedagogical innovations that pursue quality education and promote the creation of sharing spaces that disseminate resources, tools and inspiration in practical ways that can be adapted to each classroom. Each community in the region experiences unique and challenging characteristics, in which these methodologies appear to contribute with deeper learning across the curricula, increased engagement, and improved student socialisation skills. For teachers, this is one of the many manifestations of the power of a collaborative environment that shortens distances and facilitates connections between talented and passionate practitioners eager to do more for their students. This analysis also presents propositions for additional professional development and new regional and international research approaches.

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DISCLOSURE STATEMENT

The author reports there are no competing interests to declare. The funding party had no involvement in research design, implementation and analysis, or dissemination strategies.

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SECTION 2. METHODOLOGY INFOGRAPHICS

As part of the Participatory Action-Research process (Reason & Bradbury, 2007) for this work, the teaching staff that joined the group received information on the methodologies of Experiential Education, Outdoor Learning (in Spanish, this term is also phrased as 'Learning Outside the Classroom'), Adventure-Based Learning and Place-Based Education.

In this section, you will find the infographics shared with the group for quick reference. The synthesised, visual format presented was used so information could be transmitted and consulted practically from mobile phones and chat applications. The infographics were initially produced and distributed in Spanish; this edition includes the elements translated to English.

You can also access the digital board that we generated for this process, which will remain active indefinitely (in Spanish): https://padlet.com/mache/estrategiasexperienciales

EXPERIENTIAL EDUCATION

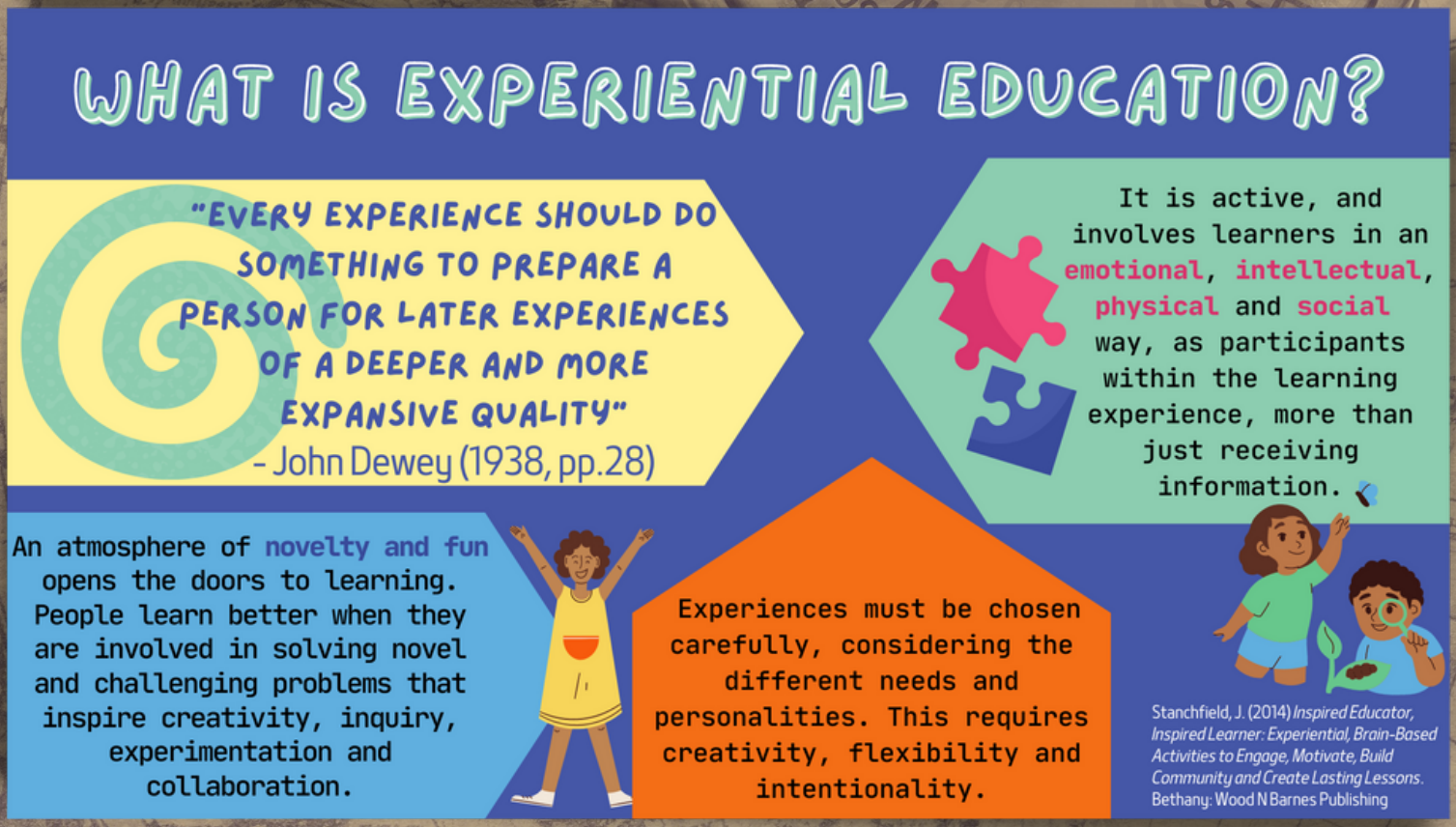


Figure 1. What is Experiential Education? (Treviño Gonzalez, 2022).

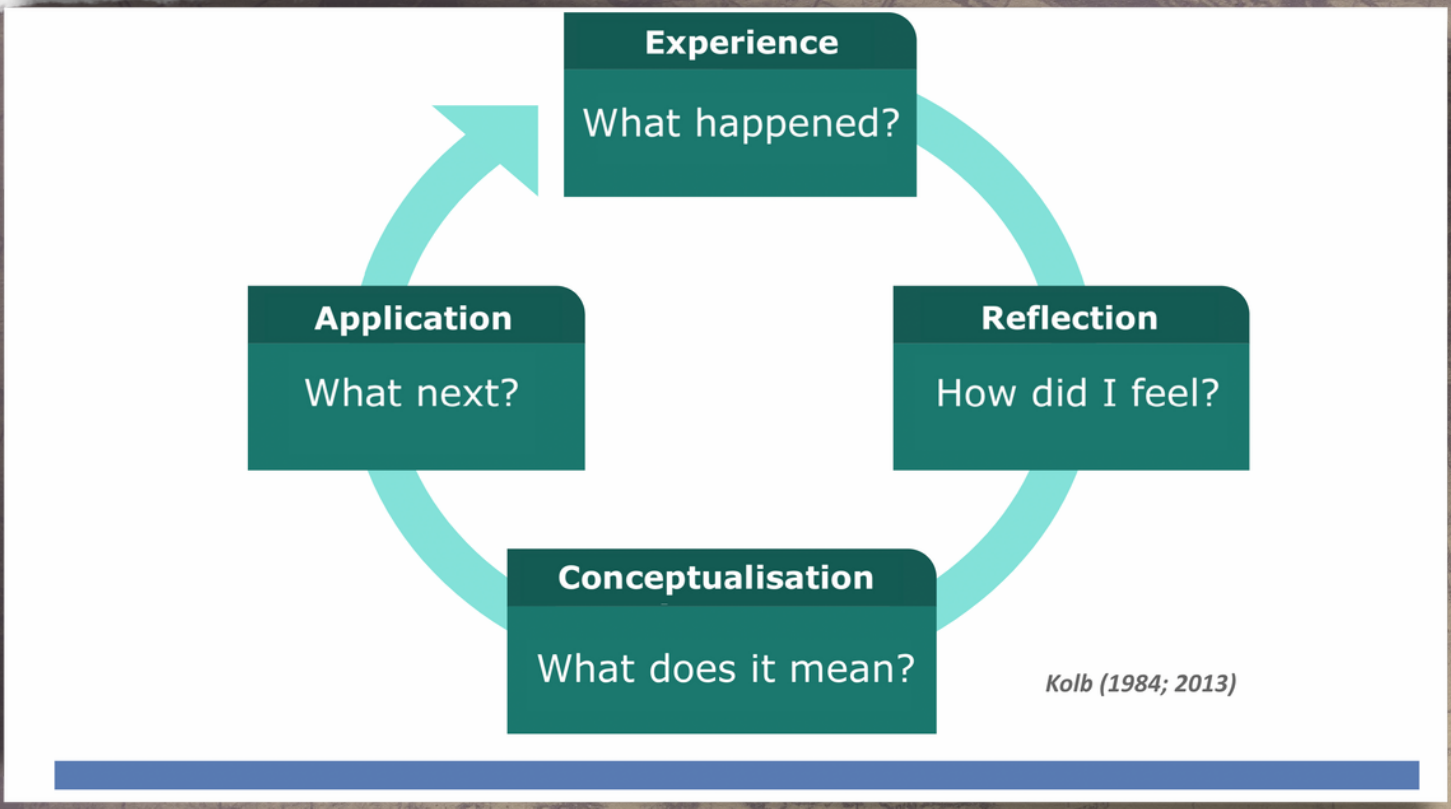


Figure 2. Experiential Learning Cycle (Treviño Gonzalez, 2022).

The following information supplements the cycle presented in Figure 2:

> For David and Alicia Kolb (2013), these are also learning styles; in specific situations, we prefer certain ways of learning.
>
> In experiential education, the learning cycle is one of the ways to invite people to reflect on what they have experienced (for example, an activity or a challenge), link it with content (conceptualisation), and find practical learning for the next experience (Treviño González, 2022, pp.1).

OUTDOOR LEARNING

Figure 3. Outdoor Learning Zones (Treviño Gonzalez, 2022).

"What can be done in the outdoor classroom rather than doing it within four walls?

What effect does it have on understanding reality?

How can knowledge of nature, culture, and society penetrate the rooms that for so long have been considered the core of education? "

(Szczepasnksi, 2001, pp.20)

Figure 4. Reflection questions regarding Outdoor Learning (Treviño Gonzalez, 2022).

Benefits of Nature

Interaction with Nature has remarkable benefits. From a pedagogical perspective, outdoor learning (or outside the classroom) can be transforming and relate to **diverse curricular contents**

Several studies show that interaction with nature (*even small areas*) **positively impacts** our health.

- Less **anxiety** and **depression**
- Less mental **fatigue** and **stress**
- Stimulates brain regions related to **empathy** and **altruism**
- **Improvements** in

Highlights **diverse forms of learning** *(indigenous knowledge, affective cognition, embodied cognition, ethical responsibilities).* Promotes: **active learning, curiosity, creativity, autonomy, decision-making and socialisation.**

Increases feelings of **connection and belonging**. Changes the usual "human-centric" focus towards "being ***with*** the world".

Important: Be thoughtful of the activity approach; experience in nature could have cultural and genderised meanings that can become exclusive if not addressed.

Sources: Williams, F. (2021); Kraftl *et al.* (2022)

Figure 5. Benefits of Nature (Treviño Gonzalez, 2022).

RECOMMENDATIONS

FOR LEARNING OUTSIDE THE CLASSROOM

01 BEFORE

- PLAN TO WEAR COMFORTABLE CLOTHES FOR THE WEATHER.
- CONSIDER HYDRATION AND ENERGY CONSUMPTION.
- PLAN ACTIVITIES – INVOLVE THE GROUP (ACTIVITY IDEAS, POSSIBLE RISKS, SAFETY AND GROUP RULES, TIMING) AND CONNECT WITH LEARNING GOALS.
- START WITH YOUR STRENGTHS (YOURS AND THE GROUP'S): START SIMPLE.
- REVIEW SCHOOL POLICIES OR PROPOSE PROTOCOLS.
- IDENTIFY POSSIBLE AREAS.
- CREATE A " BASIC KIT":
- SHARE THE PLAN AND ADDRESS CONCERNS.

02 DURING

- REVIEW THE AGREED GROUP RULES.
- USE THE CIRCLE AS A MEETING POINT.
- DECIDE A SIGNAL OR GROUP CALL: USE A TIMER.
- INCORPORATE PLAY, MOVEMENT AND CREATION.
- SEARCH FOR EXCITING ELEMENTS AND INTEGRATE THEM INTO THE ACTIVITY.
- COMBINE COLLABORATION WITH INDIVIDUAL WORK.
- EXPLORE USING THE SENSES.
- THINK FROM AN ADVENTURE PERSPECTIVE.
- EXPRESS LEARNING IN CREATIVE WAYS.

03 AFTER

- EXPLORE: THINGS WE ENJOYED, CHALLENGING ISSUES, DETAILS TO IMPROVE THE NEXT TIME, AND NEW THINGS TO DO.
- SHARE: INFORM OTHERS ABOUT YOUR RESULTS AND LEARNING.

Reference: Robertson, J. (2017) *Educar fuera del Aula*. Madrid: Ediciones SM.

Figure 6.
Recommendations for learning outside the classroom (Treviño Gonzalez, 2022).

PLACE-BASED EDUCATION

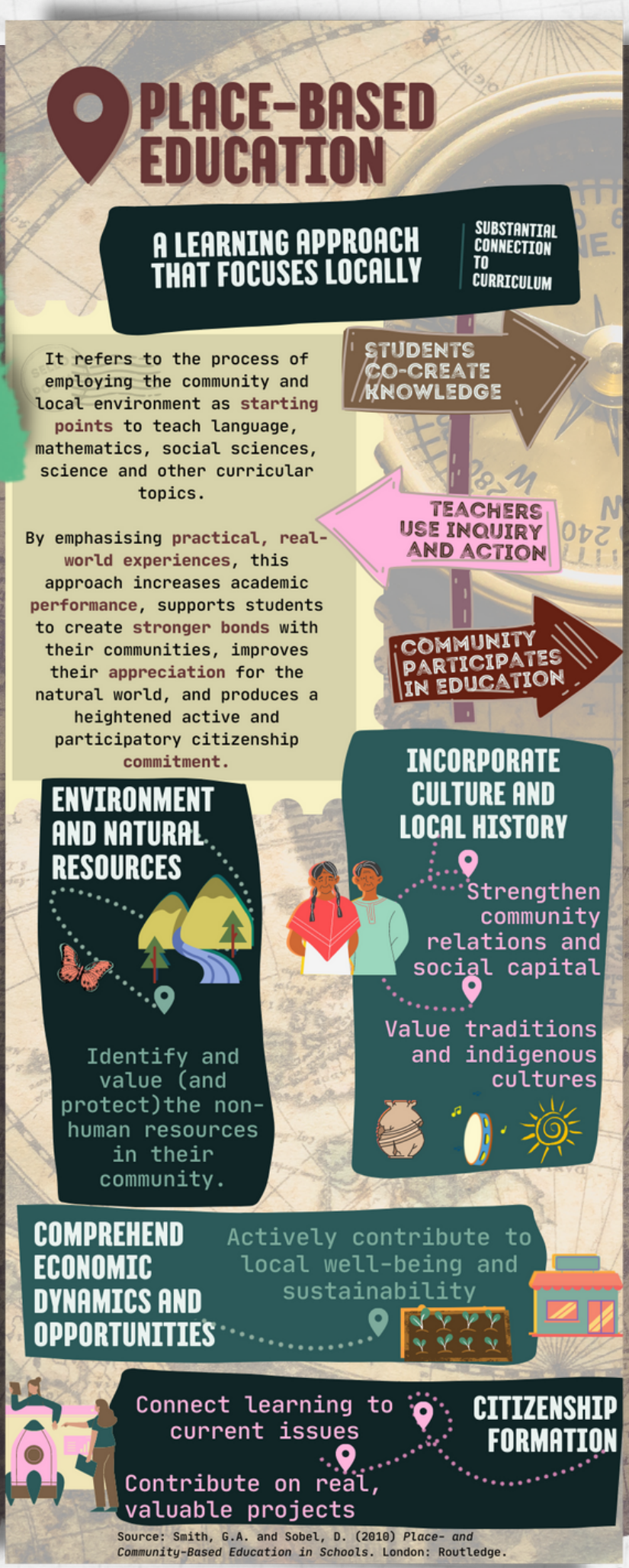


Figure 7. Premises for Place-Based Education (Treviño Gonzalez, 2022).

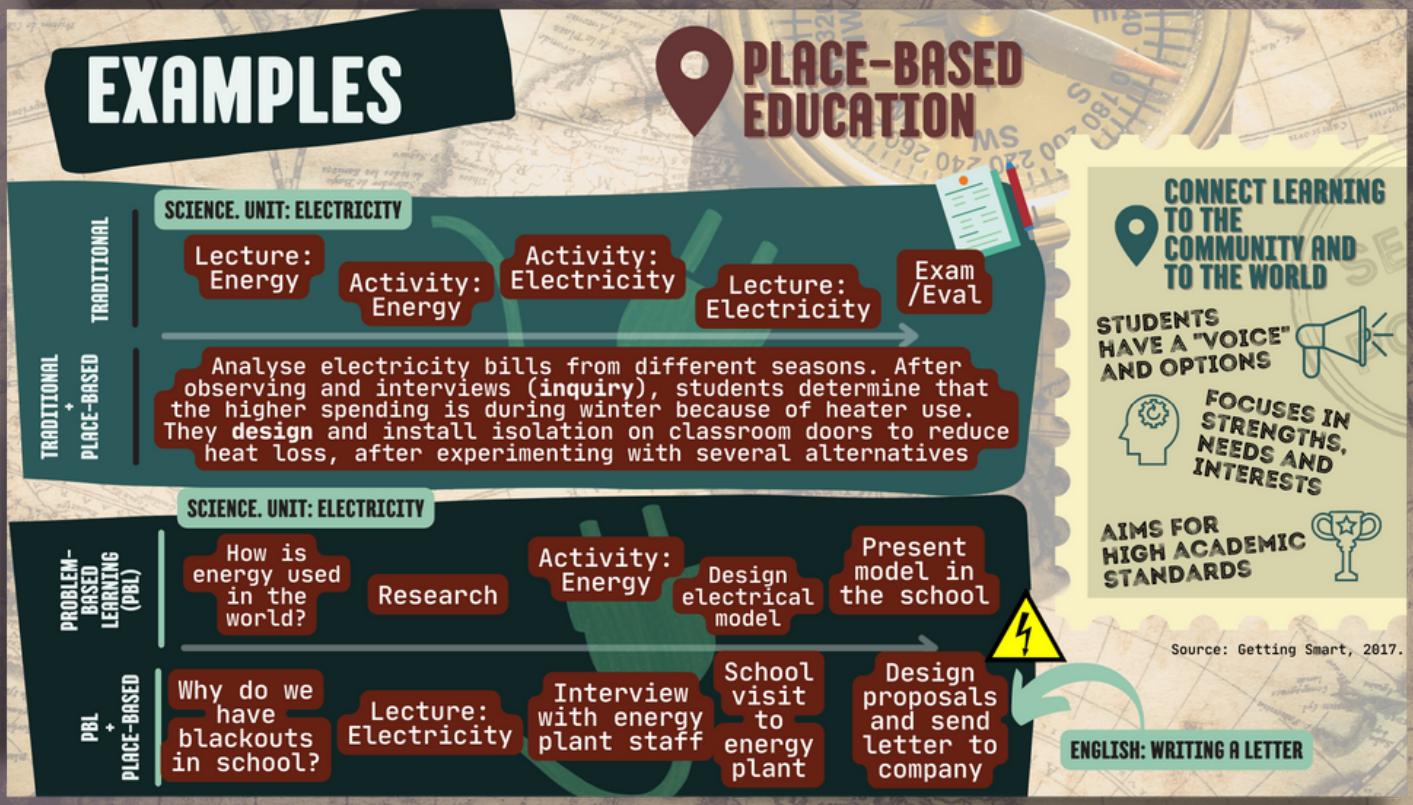


Figure 8. Examples of Place-Based Education (Treviño Gonzalez, 2022).

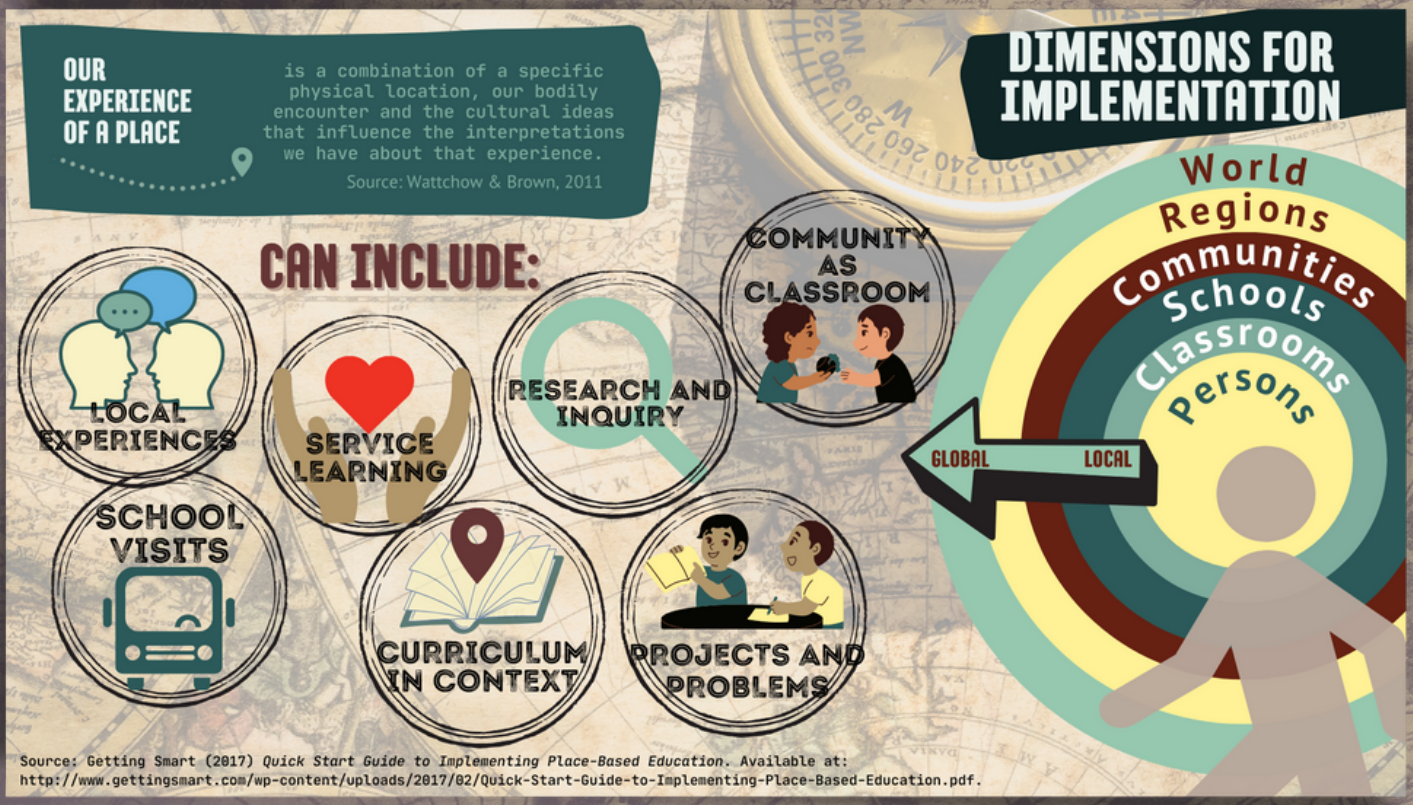


Figure 9. Dimensions of Place-Based Education (Treviño Gonzalez, 2022).

ADVENTURE-BASED LEARNING

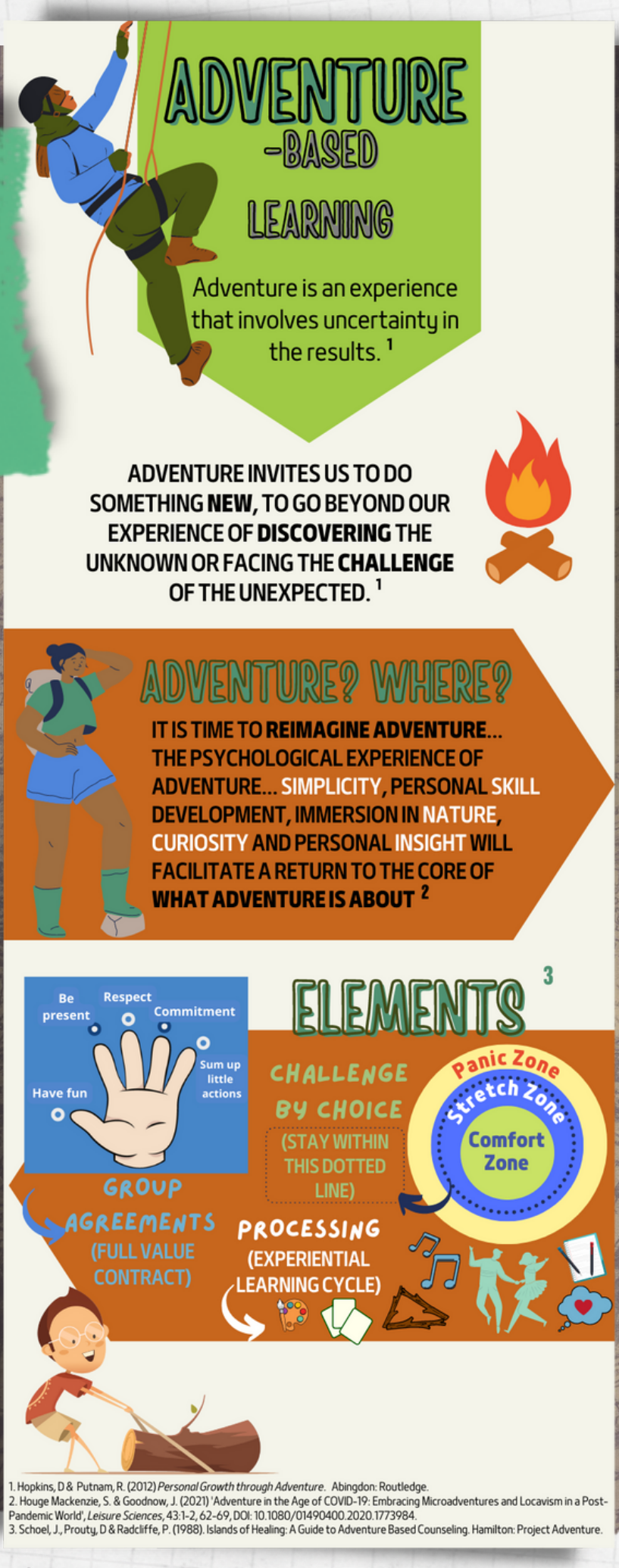


Figure 10. Adventure-Based Learning Basics (Treviño Gonzalez, 2022).

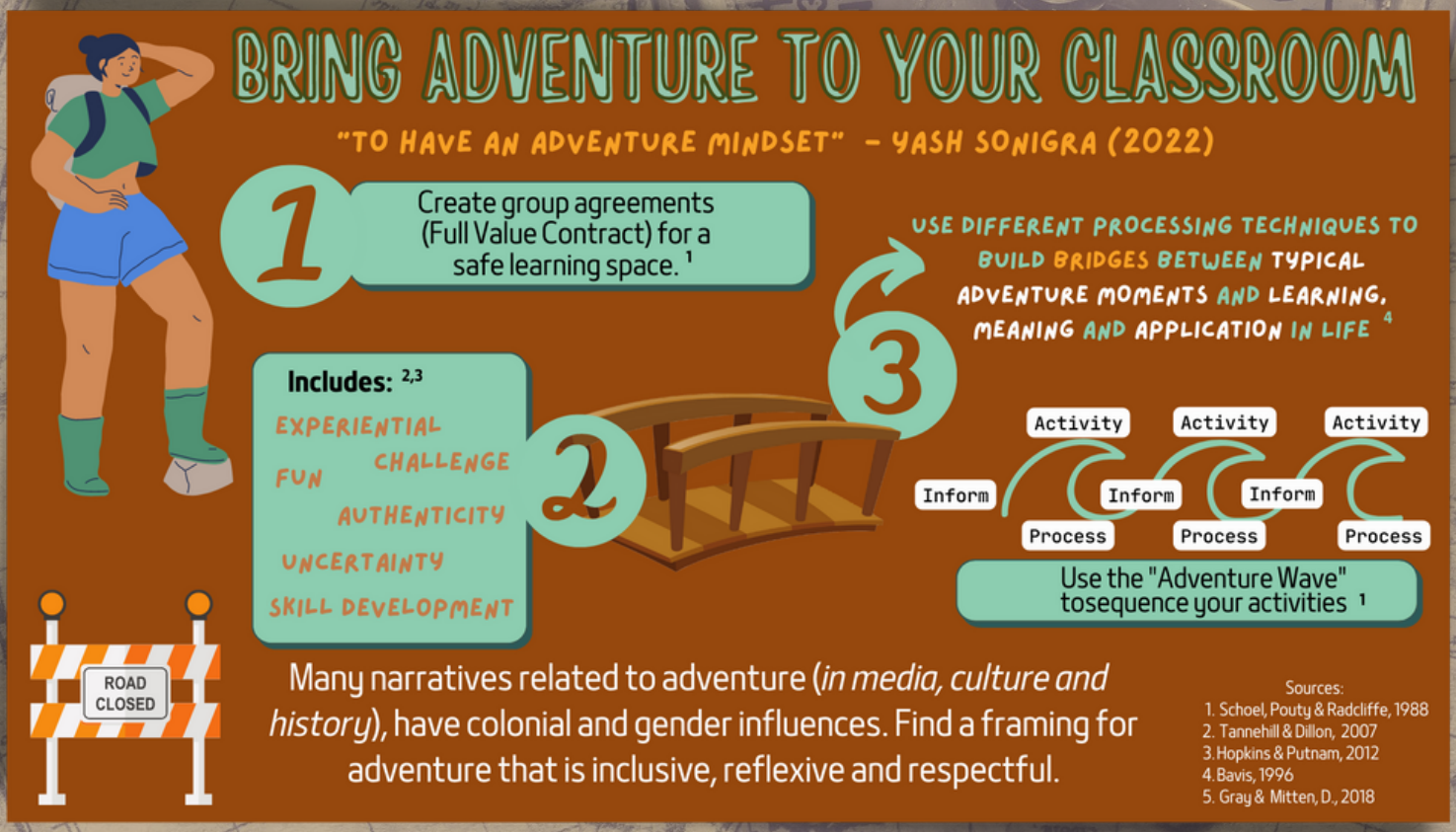
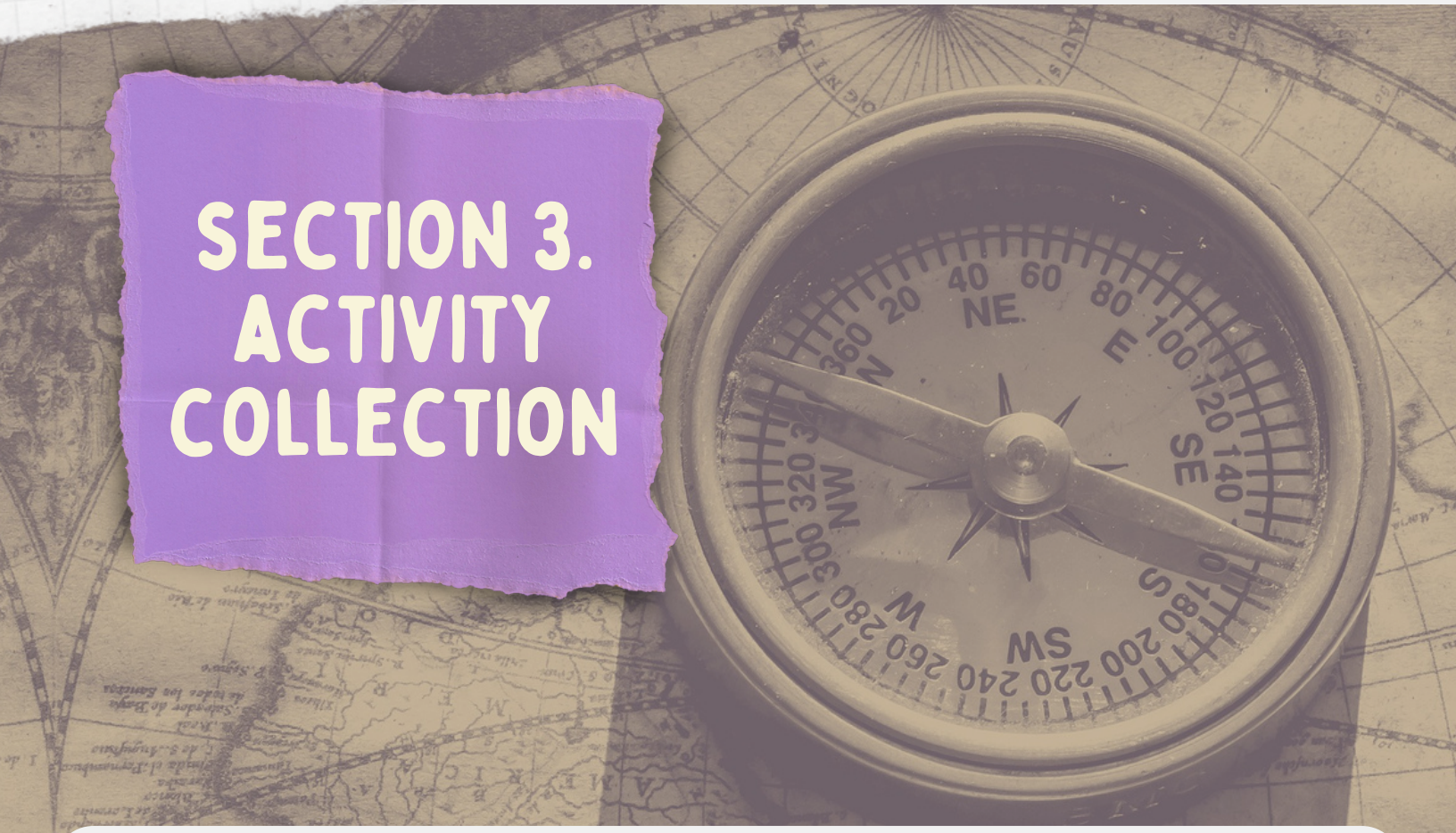


Figure 11. Bring Adventure to your Classroom (Treviño Gonzalez, 2022).

SECTION 3. ACTIVITY COLLECTION



In this section, you will find all the activities the group of teachers sent within the participatory action research process.

Based on their analysis and design of activities, each teacher assigned the methodological categories mentioned in the codification below each activity name. Appendix 1 shows a table listing the activities and the classification of methodologies that each one addresses.

More details on these methodologies can be found in the journal article of Section 1 and in the infographics featured on Section 2.

ACTIVITY: ABILITY VOLCANO

CATEGORIES

EXPERIENTIAL ED.
ADVENTURE-BASED LEARNING

CREATED BY FABIOLA MALDONADO ACOSTA

Figure 1. Group completes the challenge (Maldonado Acosta, 2022).

GOAL

To be knowledgeable of our abilities as a person and as a group, being that joining efforts with others allows us to solve conflicts and face the challenges that arise; together, we can support each other to overcome them.

MATERIALS

Medium plastic container, preferably wide-sized neck (cone type).
1 sheet of paper
1/4 of letter-sized reused paper for each member.
Pens.
Coloured tape or brooms to delimit the area.

Figure 2. Group organises for the task (Maldonado Acosta, 2022).

BUENAVENTURA, CHIHUAHUA, MEXICO

DESCRIPTION

Invite the group to reflect on their current problems, listening respectfully to all ideas. Together, create a list of the issues identified.

Demarcate an area using tape or brooms and place the list of problems at the centre. Set the plastic container on top of or next to this problem list.

Each person takes one of the sheets cut into four and records their main personal qualities. Invite them to reflect on and value their unique attributes. Next, they will roll this paper into a ball, explaining that their ability will help deal with the group's problems.

Figure 3. Location of Buenaventura

Figure 4. Group completes the challenge (Maldonado Acosta, 2022).

Figure 5. Group completes the challenge (Maldonado Acosta, 2022).

The group may not enter the enclosed area nor touch the ground within it or the container.

They should be organised as a team so that each person can deposit (not throw) their paper ball inside the container. If someone touches the ground or the container, or their paper ball falls to the ground, the whole group must restart the challenge.

This activity is a variant of the “Fill the Crate” challenge (Stanchfield, 2014, pp. 158-159) and can be done in various ways.

RECOMMENDATIONS FOR TEACHERS

The area must be large enough to complete the task by asking the group for support, not individually.

Provide clear and precise rules, giving safety instructions before starting.

Make a reflection at the end, asking how they felt and what they learned.

This activity can be performed inside the classroom or outdoors.

ACTIVITY: ACADEMIC RALLY

CATEGORIES

EXPERIENTIAL ED.
OUTDOOR LEARNING
ADVENTURE-BASED LEARNING

SENT BY FABIOLA MALDONADO ACOSTA

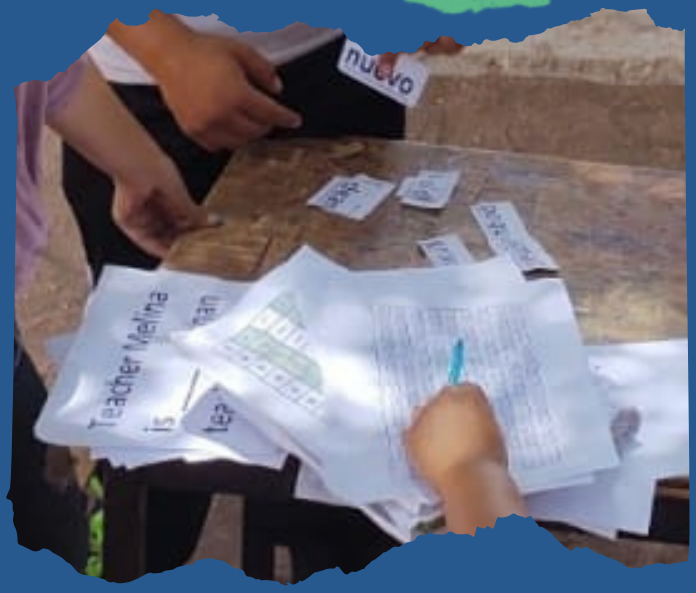


Figure 6. Student activity (Maldonado Acosta, 2022).

Figure 7. Finished product (Maldonado Acosta, 2022).

GOALS

Promote group integration and strengthen collaboration skills.

Evaluate learning of various subjects creatively and through a different alternative to the written one.

MATERIALS

Outdoor areas.
Tables or surfaces for different materials.
Reused paper.
Markers.
Varied materials according to selected activities (food, balloons, cards, and others).

Figure 8. Working on an experiment (Maldonado Acosta, 2022).

SPECIAL THANKS TO STAFF AT:
TECHNICAL SECONDARY SCHOOL 17

BUENAVENTURA, CHIHUAHUA, MEXICO

DESCRIPTION

For this activity, the participation of the teaching staff leading each of the different subjects such as Spanish, Mathematics, English, Physical Education, Livestock and Agriculture, is recommended.

Each teacher will design an activity covering one or more course contents through games and teamwork.

When carrying out the rally, the group is divided into teams, seeking to promote interaction among those who do not know each other well.

Each team will have a sequence of bases to visit, completing the different activities.

Some examples of activities are:

- Mathematics: find balloons in the playground, and pop them to extract a piece of paper with an equation to solve.
- History: organise cards with relevant historical facts, creating a collaborative timeline.
- Civic and Ethics: solve a memory game.
- Spanish: organising words on a SEGA board according to accentuation (Bendaña Gutiérrez *et al.*, 2022).

Figure 9. Location of Buenaventura.

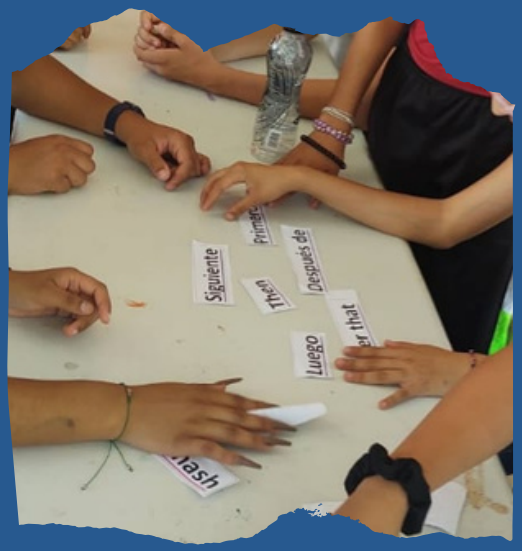


Figure 10. Student activity (Maldonado Acosta, 2022).

- Physical Ed.: carry out group and dance challenges.
- English: organise sentences to decipher a motivational message.
- Agriculture: complete excavations correctly for transplanting.
- Science I: solve a concept crossword puzzle.
- Science II: explain chemical reactions using a miniature volcano.

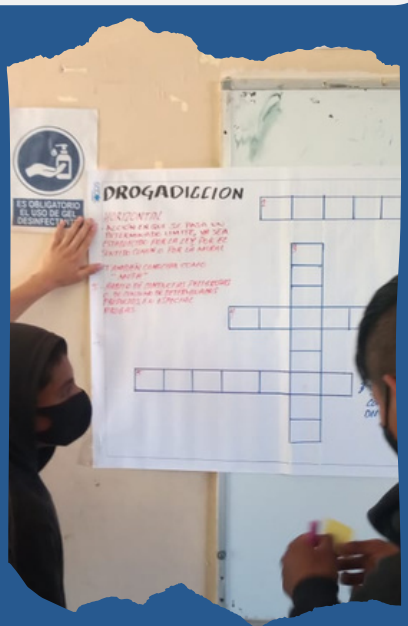


Figure 11-15. Students complete activities for different subjects (Maldonado Acosta, 2022).

Figure 16, 17 & 18. Students perform a variety of tasks (Maldonado Acosta, 2022).

RECOMMENDATIONS FOR TEACHERS

Organize workstations in different areas of the school.

Distribute time blocks for each activity so that teams work simultaneously and change stations at the same time.

ACTIVITY: ACID RIVER

CATEGORIES

EXPERIENTIAL ED.
OUTDOOR LEARNING
ADVENTURE-BASED LEARNING
PLACE-BASED ED.

CREATED BY FABIOLA MALDONADO ACOSTA

Figure 19. Students cross the river (Maldonado Acosta, 2022).

GOALS

Promote collaborative work to overcome obstacles.

Provide tutoring on various contents.

MATERIALS

Outdoor area.
Hoops, bandanas, newspapers or any other base that can fit 3 to 5 students, depending on class size.

DESCRIPTION

The 'Acid River' activity (Schoel *et al.*, 1988, pp. 237) is also known as the 'Toxic River' (Clancy & Hruska, 2005; Bilous *et al.*, 2018) or 'Stepping Stones' (Flippo, 2016, pp. 62; Rohnke & Butler, 1995, pp. 186–188).

It consists of delimiting an area to cross. Participants must cross the marked space without stepping outside the provided material (hoop, handkerchief, newspaper) and traverse together in the shortest time possible. They can travel back in the same way.

Figure 20. Students complete the challenge (Maldonado Acosta, 2022).

BUENAVENTURA, CHIHUAHUA, MEXICO

This activity can cover several contents, either through questions, information or clues in each “stone” - which they must arrange in order - or collect elements along the way to solve them when they reach the other end.

RECOMMENDATIONS FOR TEACHERS

The activity is helpful for integration, collaborative work and shared leadership.

It can be performed outside the classroom or inside it.

Figure 21. Students use hoops for the task (Maldonado Acosta, 2022).

Figure 22. Location of Buenaventura

ACTIVITY: CLEANING THE RESERVOIR

CATEGORIES

EXPERIENTIAL ED.
OUTDOOR LEARNING
PLACE-BASED ED.

CREATED BY NYDIA PATRICIA HINOJOS DURÁN

Figure 23 & 24. School community at the reservoir (Hinojos Durán, 2022).

GOALS

Take care of the environment, keeping the areas free of waste.

Utilise waste for learning.

MATERIALS

Bags to collect waste.
Gloves.
Group transport.

DESCRIPTION

Identify a place impacted negatively by the human activity of tossing litter.

We start by locating the place geographically on the map. Then, we search about its history and comment on its usefulness to our community. We discuss how waste impacts it and collectively decide to take action to keep that green area clean.

The group proposed different actions, including visiting the place and collecting trash. Another idea was to create a sign for the area, so those who visit remember to pick up their litter before leaving.

Figure 25 & 26. School community at the reservoir (Hinojos Durán, 2022).

LAGUNA FIERRO, CHIHUAHUA, MEXICO

We selected a visit to the reservoir and to clean up together, inviting family members to join. After collecting waste in bags according to their type, we put all the bags together and asked questions about various topics covered during the school year: how we can reuse waste, how it is recycled, which elements take the longest to degrade, and why we should not burn trash.

We then decided to relate math content. We arranged the bags to form a rectangle and measured its perimeter. For this, we selected a standard measurement: one girl's foot size was 30 cm, so we employed this criterion to cover the area, counting 23 segments of 30 cm. Finally, using a pointy material on the ground, the students completed a multiplication, obtaining the result of 690 centimetres.

Figure 27 & 28. Students measuring the perimeter (Hinojos Durán, 2022).

Figure 29. Location of Laguna Fierro.

Good evening. I want to thank the families who supported this activity. With this project, we worked on the geographical location of Laguna Fierro and its history. We addressed natural science topics such as: caring for the environment, reusing garbage, recycling, and global warming. We also covered mathematics, geometric figures, differences between area and perimeter, multiplication, healthy coexistence, use of transportation, and empathy. Thank you very much for your support.

In the end, we thanked the adults who accompanied the group of students in the activity, and each person took their garbage bags to deposit them in the corresponding containers.

RECOMMENDATIONS FOR TEACHERS

It is essential to review the weather forecast, so the activity is not affected by the sun, rain or other factors.

Bring bags to collect waste.

Consider those families who own a car, and invite them to share with those who do not have one.

Prevent the group from spreading out far. In this case, we were also careful that they did not approach the bushes because of the potential presence of black widow spiders.

If possible, we recommend that an adult family member accompany each student.

Figure 30 & 31. School community at the reservoir (Hinojos Durán, 2022).

ACTIVITY: CUAU'S EGGS

CATEGORIES

EXPERIENTIAL ED.
OUTDOOR LEARNING
ADVENTURE-BASED LEARNING

CREATED BY DIEGO ANTONIO TORRES HERNÁNDEZ

Figure 32. Student throws the correct amount of 'eggs' (Torres Hernández, 2022).

GOALS

Practice mathematical thinking and the foundations for counting.

Reinforce the counting of objects in children aged 3-4 years to favour the construction of the number.

Figure 33. Student traverses an obstacle (Torres Hernández, 2022).

MATERIALS

Objects in the classroom that can represent an obstacle: rebounders, mats, ropes (the little ones are excited to see everyday things in their classroom transform into something different). Figures of eggs and baskets or plastic eggs and containers.

MONTERREY, NUEVO LEÓN, MEXICO

Figure 34 & 35. Students cross obstacles (Torres Hernández, 2022).

DESCRIPTION

Start by informing the group that our farmer friend, Cuau, has lost their eggs.

Explain that the eggs have scattered throughout the garden. An alternative can be to place the eggs in a larger basket to sort them into smaller containers.

Each small basket needs to get a specific number of eggs (from 1 to 5). To collect them, the group will first need to overcome several obstacles.

For this purpose, set a short obstacle course that each student will take turns completing.

At the end of the obstacle course, they will reach the eggs and baskets.

Given a random number, each student must put the number of eggs indicated in a basket by throwing them from the marked line and aiming for the corresponding container.

Figure 36. Student throws the correct amount of 'eggs' (Torres Hernández, 2022).

Figure 37. Student reaches the throwing area (Torres Hernández, 2022).

Figure 38. Location of Monterrey.

Figure 39. Activity setup (Torres Hernández, 2022).

RECOMMENDATIONS FOR TEACHERS

This activity is for students between 3 and 4 years old. They are still learning to take turns and follow directions at this stage, so be patient when explaining instructions and firm about taking turns.

It is an activity with a lot of movement, so it is attractive. However, it is essential as a teacher to motivate them enthusiastically and ensure those waiting also cheer or encourage others. In this way, they remain focused until their turn comes, inviting them to pay attention to the group and letting them know it is not a competition. Explain that they will win the game as a team when they have placed all the eggs in their baskets.

ACTIVITY: EXPRESS PRESENTATION

CATEGORIES
EXPERIENTIAL ED.
PLACE-BASED ED.

CREATED BY YANELLI MORENO CABRERA

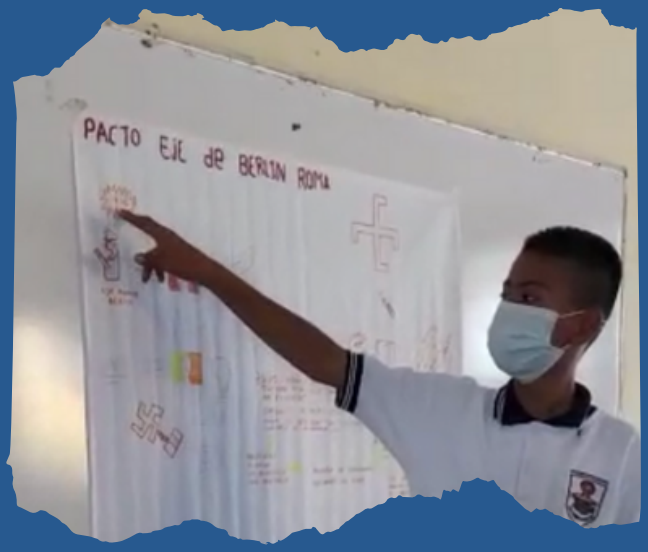


Figure 40 & 41. Students at the activity (Moreno Cabrera, 2022).

GOAL

Quickly create materials and summarise information to present a historical event to the group.

MATERIALS

Reused paper.
Markers.
Materials for reuse or recycling.
Elements in nature

DESCRIPTION

Use this quick activity to change the pace of the class.

Divide the group into small teams. Each team is assigned a topic to explain.

They have a short time (15 minutes, for example) to discuss the content, decide how to present it, and search for reusable materials, elements of nature and other available materials with which they can organise their presentation for the group.

Each team briefly introduces their topic, allowing time in the end for questions from the group and for sharing additional information that complements the presentation.

SANTO DOMINGO INGENIO, OAXACA, MEXICO

Figure 42. Student presents (Moreno Cabrera, 2022).

RECOMMENDATIONS FOR TEACHERS

You can also use this moment to evaluate learning and reinforce what is necessary.

Motivating the entire team's participation in building the express presentation, and inviting them to use all the resources they can find, favours the use of creative skills.

Figure 43. Location of Santo Domingo Ingenio.

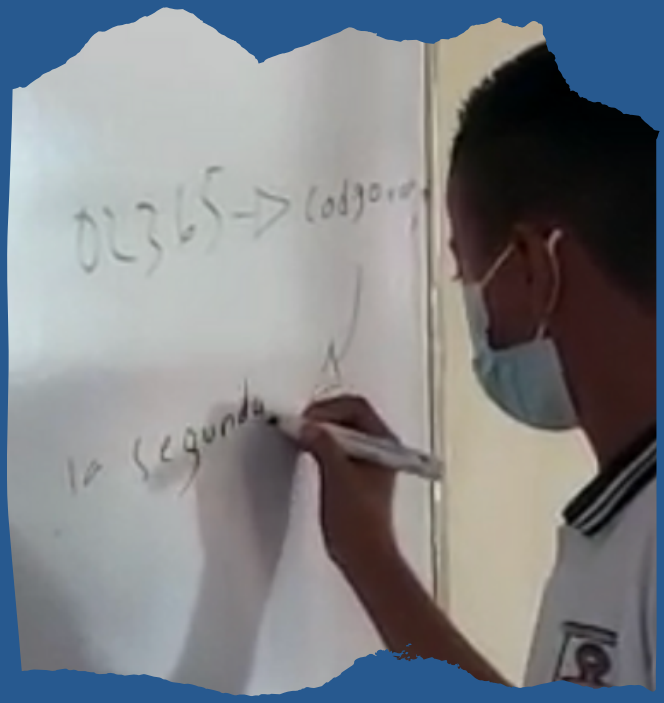


Figure 44. Student presents (Moreno Cabrera, 2022).

ACTIVITY: HISTORY STRETCH

CATEGORIES
EXPERIENTIAL ED.
OUTDOOR LEARNING

CREATED BY YANELLI MORENO CABRERA

Figure 45. Students challenge the opposite team (Moreno Cabrera, 2022).

GOAL

Review learning about different historical events in a playful and creative format.

MATERIALS

Outdoor area.
Notebook or textbook.
Optional: rope.

DESCRIPTION

The activity takes place in an outdoor area of the school, with enough space to move around.

Divide the group into two teams, which will compete against each other. The challenge is to play matches of the “tug of war” game, in which two teams use their strength and strategy to pull their opponents across a line in the centre of the area. Teams can hold each other around the waist to form a human chain and pull their contenders if no rope is available.

Figure 46 & 47. Students perform the activity (Moreno Cabrera, 2022).

SANTO DOMINGO INGENIO, OAXACA, MEXICO

When a team crosses the line, they must represent a relevant historical fact of the selected content using mimicry.

The winning team can assign the topic for the other team to present.

Figure 48. Location of Santo Domingo Ingenio.

Figure 49. Students use mime to present a fact (Moreno Cabrera, 2022).

RECOMMENDATIONS FOR TEACHERS

Provide clear instructions for the game, inviting teams to care for each other and play safely.

Adjust the rules according to the group's needs to maintain attention and ensure safety.

Promote mutual support in the group.

ACTIVITY: LEARNING ABOUT OUR INSTITUTIONS AND THEIR HISTORICAL ARCHIVE

CATEGORIES

EXPERIENTIAL ED.
OUTDOOR LEARNING
PLACE-BASED ED.

CREATED BY BRENDA MELINA PLATA ALCAZAR

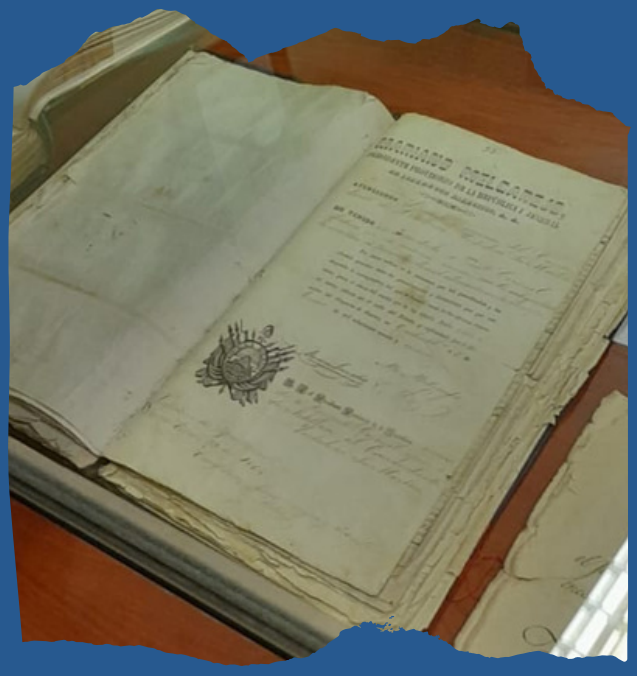


Figure 50. Historical archive (Plata Alcazar, 2022).

Figure 51. Students consulting material (Plata Alcazar, 2022).

GOAL

Select relevant references on 'The Federal War in Bolivia' from bibliographic records and complete bibliography cards as a base for writing historical essays.

MATERIALS

Application for a visit to the chosen institution, signed and stamped by the school administration.
Transport for the students.
Bibliography cards.
Gloves to handle the most delicate files.
Pens.
Mobile phones to take pictures of documents that are not scanned.

Figure 52 & 53. Students at the Historical Archive (Plata Alcazar, 2022).

LA PAZ, BOLIVIA

DESCRIPTION

PLANNING:

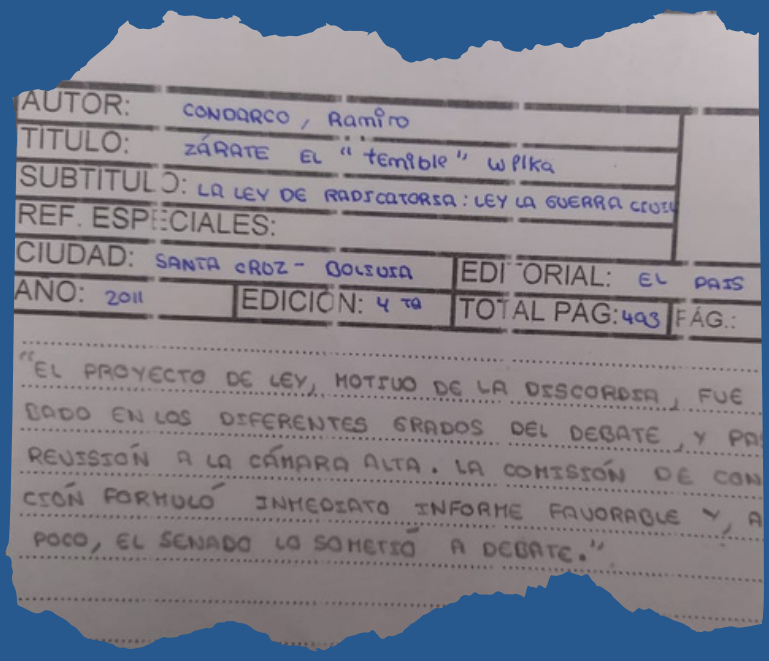
1. We chose an institution with documents that could be valuable for exploring an advanced topic in the area of History. In this case, the theme was 'The Federal Revolution in Bolivia'. The institution we visited was the Newspaper Library and Historical Archives of the Vice Presidency.
2. We sent the institution a request to schedule a day visit.
3. We organised into reading and cooperation groups in the classroom.
4. Once the subject exploration progressed, we made the methodological explanation of how to fill out bibliographic records and how these cards can contribute to producing a historical essay, monograph or report.
5. We set work rules in the teams and ran an activity drill at school before attending the Historical Archive.

Figure 54. Students at the Historical Archive (Plata Alcazar, 2022).

Figure 55. Location of La Paz.

VISIT DAY IS HERE!

1. We transferred to the library.
2. We took a guided tour around the Archive and Library, identifying written sources of high historical value.
3. We delivered the request forms for library documents we had previously filled out in class.
4. We read information and registered relevant data on bibliographic cards related to the research subject.
5. In the end, we had time to take a group photograph in the Palace of the Vice Presidency.
6. We returned to school and, during the following class, began writing our historical essays with the help of the bibliographic cards created at the visit.


AUTOR: CONDARCO, Ramiro
TITULO: ZÁRATE EL "temible" WILKA
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REF. ESPECIALES:
CIUDAD: SANTA CRUZ - BOLIVIA | EDITORIAL: EL PAIS
AÑO: 2011 | EDICIÓN: 4 TA | TOTAL PAG: 493 | PÁG.:
"EL PROYECTO DE LEY, MOTIVO DE LA DISCORDIA, FUE DADO EN LOS DIFERENTES GRADOS DEL DEBATE, Y PA REVISIÓN A LA CÁMARA ALTA. LA COMISIÓN DE CON CIÓN FORMULÓ INMEDIATO INFORME FAVORABLE Y, A POCO, EL SENADO LO SOMETIÓ A DEBATE."

Figure 56. Bibliography card with notes (Plata Alcazar, 2022).

Figure 57. Student consulting archive material (Plata Alcazar, 2022).

RECOMMENDATIONS FOR TEACHERS

It is advisable to fill out the loan requests for documents and books from the Archive Library before the visit to speed up access to research sources.

Doing a drill by filling out bibliographic records in class before the visit is also helpful.

It was constructive to show them a few essays and documents beforehand that caught their attention and motivated them to access and carefully examine the historical records.

Figure 58. Group on site visit (Plata Alcazar, 2022).

ACTIVITY: MULTIPLYING BOTTLES

CATEGORIES

EXPERIENTIAL ED.
OUTDOOR LEARNING

CREATED BY CLARISSA GUADALUPE PEÑUÑURI ARMENTA

Figure 59. Multiplying bottles (Peñuñuri Armenta, 2022).

GOAL

Learn that multiplication can be everywhere, including in games.

MATERIALS

Reused plastic bottles filled with soil.
Reused paper cards to write numbers.
Adhesive tape.
Markers.

DESCRIPTION

When planning the day and time of your activity, ask each student in the group to bring two recycled plastic bottles filled with soil.

The teacher writes the product of multiplication operations on small sheets of paper for the bottles. For example: 10, 25, 30, 81.

The teacher then writes the multiplication problems on a separate sheet to keep track. For example: 5x2, 5x5, 3x10, 9x9.

When everything is ready, the activity begins. Arrange the bottles in an open space where the participants can make a short race to grab them.

Figure 60. Teams ready to play (Peñuñuri Armenta, 2022).

Figure 61. Activity setup (Peñuñuri Armenta, 2022).

HERMOSILLO, SONORA, MEXICO

Figure 62. Location of Hermosillo.

Figure 63. Students race for the correct bottle (Peñuñuri Armenta, 2022).

Divide the group into two teams. An alternative is to arrange them in a circle and ask them to number themselves 1 and 2, later separating them according to these numbers.

The instructions are that upon announcing a multiplication problem, the first two people in line must say the result and run to collect the bottle with the correct response. The team members can help find the answer.

When the runners return, they join at the end of their line. The exercise continues with new problems until fetching all the available bottles.

Finally, the team that has gathered the most bottles is the winner.

RECOMMENDATIONS FOR TEACHERS

This game can help teachers recognise each student's domain in multiplications and mathematical thinking.

A practical recommendation is to review multiplication exercises days before the activity.

Figure 64. Students playing (Peñuñuri Armenta, 2022).

ACTIVITY: STEPS WE GO

CATEGORIES
EXPERIENTIAL ED.
ADVENTURE-BASED LEARNING

CREATED BY FABIOLA MALDONADO ACOSTA

Figure 65. Students follow steps (Maldonado Acosta, 2022).

GOAL

Complete a hands-on activity and obtain a product to share after collaboratively following a series of practical steps.

MATERIALS

Ingredients according to selected recipes.
Cookware.
Materials and tools required to achieve the team assembly of a product.
Step-by-step instructions (in a second language).

Figure 66. Prepared food (Maldonado Acosta, 2022).

BUENAVENTURA, CHIHUAHUA, MEXICO

DESCRIPTION

The group organises in advance to bring what is necessary to assemble a final product. An example is making a simple recipe or steps for a quick science experiment.

The group will follow a series of steps from written instructions. They can divide the chores by work tables, production in sequence, or as preferred. The goal is to complete the task correctly and in an orderly way.

The Figures depict an example of the English lesson, where the group followed a recipe in this language.

Figure 67. Location of Buenaventura.

Figure 68. Students follow the recipe (Maldonado Acosta, 2022).

RECOMMENDATIONS FOR TEACHERS

Provide clear rules.

Ensure that the materials are sufficient and that there is an adequate number of members in each team.

Reinforce hygiene and safety rules according to the activity's materials and tools.

ACTIVITY: STOP THE WAR

CATEGORIES

ADVENTURE-BASED LEARNING

OUTDOOR LEARNING

CREATED BY YANELLI MORENO CABRERA

Figure 69 y 70. Students playing (Moreno Cabrera, 2022).

GOAL

To generate an interest in reading through a variation of the traditional game of “Stop”, analysing and understanding conflicts during the Cold War, where each country had specific economic interests.

MATERIALS

Notebooks and textbooks.
Natural elements in the playground area with trees.

DESCRIPTION

First, we select teams by affinity.

Utilising a draw, each team receives a topic to cover.

Each team formulates their questions regarding the topic (Example: conflicts in Asia and America).

SANTO DOMINGO INGENIO, OAXACA, MEXICO

Figure 71 & 72. Students playing (Moreno Cabrera, 2022).

Each member also reviews part of the other topic they will compete against (Example: decolonisation of Asia and Africa). In this way, each group has questions they can ask the others and relevant information on the assigned topic to answer the questions they receive.

On the ground, draw the 'Stop' game, with a circle in the centre. Add a wider concentric circle divided into sections according to the number of participants or teams.

To play 'Stop', each member puts one foot in their section of the game, while one person says, 'I declare war on my worst enemy who is...'. Then, the person calls out someone from the opposing team, and the group must immediately run to flee the 'Stop' spot.

Figure 73. Students ready to start the game (Moreno Cabrera, 2022).

Figure 74. Layout for the game.

Figure 75. Student covers the distance in the estimated steps (Moreno Cabrera, 2022).

Figure 76. Location of Santo Domingo Ingenio.

The named person must react quickly and jump into the central circle while shouting 'Stop!'. The entire group that ran should freeze in position.

Now, the person who said 'Stop' must choose someone from the fleeing group, calculate the distance that separates them, and mention how many steps they will take to reach them.

If they get the number of steps right, they can present a question to the other team. If they fail in the distance estimation, they must respond to one of the prepared questions.

Team members can support throughout the process: to decide the number of steps, choose the questions and provide the answers.

RECOMMENDATIONS FOR TEACHERS

Request support from team representatives, so students do not get distracted from the game.

Review the questions developed by the group.

Check that the assigned topics are comprehended, and explain the adaptation of the game's rules for this activity.

Figure 77 & 78. Students play and respond questions (Moreno Cabrera, 2022).

ACTIVITY: WHICH ANIMAL IS IT?

CATEGORIES
EXPERIENTIAL ED.
OUTDOOR LEARNING

CREATED BY KARLA IRAHÍ CRUZ BERMÚDEZ

Figure 79. Students imitate animals (Cruz Bermúdez, 2022).

GOAL

Recognize the general characteristics of animals.

MATERIALS

Sufficient outdoor space.
List of animals.
Cards with names of animals.

DESCRIPTION

Prepare in advance a list of animals and write them on the cards. Create pairs of cards according to the number of students.

Start by exploring animals the students know: where have they seen them? What are they like? Where do they live?

Later, inform them that they will receive a card with the name of an animal, which they must keep secret. Guide them to reflect on how does it look? What sound does it make? Does it walk, fly, swim or crawl?

Figure 80 & 81. Students represent their assigned animal (Cruz Bermúdez, 2022).

REYNOSA, TAMAULIPAS, MEXICO

Figure 82. Students mimic animal sounds and movements (Cruz Bermúdez, 2022).

Figure 83. Location of Reynosa

Figure 84. Final group conversation (Cruz Bermúdez, 2022).

In the playground, the whole group will make the sounds and movements of the animals assigned on their cards. They will try to find the other person who represents the same animal by observing their actions and listening to the sounds they produce.

When the whole group finds their partners, they will participate by repeating the sounds they made. Why did they make those gestures?

Together, mention the characteristics of the animal each person got.

In the end, discuss with the students the classification of animals according to their characteristics: fish, amphibians, reptiles, birds and mammals.

RECOMMENDATIONS FOR TEACHERS

After the group members review the animals' descriptions, students can make an album with their drawings and characteristics.

Figure 85. Students play the game (Cruz Bermúdez, 2022).

ACTIVITY: WHICH IS OUR PLACE IN THE NEIGHBOURHOOD?

CATEGORIES

EXPERIENTIAL ED.
OUTDOOR LEARNING
ADVENTURE-BASED LEARNING
PLACE-BASED ED.

CREATED BY MADELEINE HINESTROZA MENDOZA

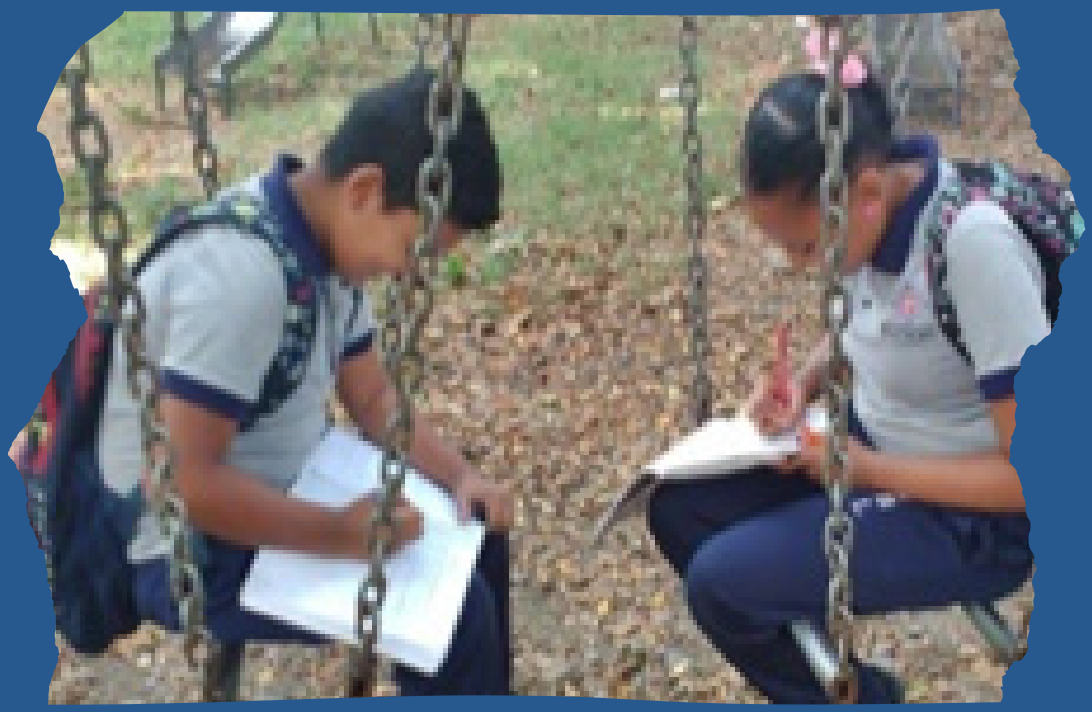

Figure 86. Students draw their neighbourhood maps (Hinestroza Mendoza, 2022).

GOAL

Identify through a neighbourhood walk some characteristics of the geographical environment where they study and spend a large part of their academic and family life.

MATERIALS

School log (notebook).
Photocopy of the form to fill out during the walk.
Water bottles.
Physical education uniform or comfortable clothing.

DESCRIPTION

Our neighbourhood tour encompasses a walk from the Toscana Centre to the Main Headquarters. The walk theme explores the urban geography of the Toscana neighbourhood, home of the Toscana Centre and the Main Headquarters of the “Presbítero Antonio José Bernal Educational Institution”. The goal is to apprise students of the characteristics of the environment where they study and spend a considerable part of their academic and family life.

MEDELLIN, COLOMBIA

Figure 87. Location of Medellin.

Figure 88. Students record their observations (Hinestroza Mendoza, 2022).

Students observe the landscape in detail during the walk, enjoying the journey. Through a group discussion, they can reflect on topics such as:

1. Identify three places that give service to the community.
2. What kind of places and recreational parks do we find in the area?
3. Observe the traffic of vehicles during the tour.
4. Describe the physical structure of the dwellings.

RECOMMENDATIONS FOR TEACHERS

While conducting the walk, you can also converse with the students about their most frequently visited spots.

Upon arrival at the Headquarters, they can sketch a map explaining their selected route from one campus to another and their observations.

An additional element to comment about is the history of the neighbourhood and the natural and urban resources it has.

Figure 89. Medellin street (Treviño González, 2017).

APPENDIX 1

Table of Activities and Categories

ACTIVITY	EXPERIENTIAL EDUCATION	OUTDOOR LEARNING	PLACE-BASED EDUCATION	ADVENTURE-BASED LEARNING
Ability Volcano	✓			✓
Academic Rally	✓	✓		✓
Acid River	✓	✓	✓	✓
Cleaning the Reservoir	✓	✓	✓	
Cuau's Eggs	✓	✓		✓
Express Presentation	✓		✓	
History Stretch	✓	✓		

Table of Activities and Categories

ACTIVITY	EXPERIENTIAL EDUCATION	OUTDOOR LEARNING	PLACE-BASED EDUCATION	ADVENTURE-BASED LEARNING
Learning about our Institutions and their Historical Archive	✓	✓	✓	
Multiplying Bottles	✓	✓		
Steps We Go	✓			✓
Stop the War		✓		✓
Which Animal is it?	✓	✓		
Which is Our Place in the Neighbourhood?	✓	✓	✓	✓

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A group of teachers from Bolivia, Colombia and Mexico gathers online, explores experiential learning approaches and creates activities for their classrooms. The collaborative space created together, allowed for mutual support, shared ideas and encouragement, helping us feeling connected and close... a small replica of what probably happens in different school corners around the world.

These pages share the research process, findings, visions of education for Latin America, and a collection of activities for you to get inspired and join the transformation.

MACHE TREVIÑO