

The Application of Place-Based Education in Social Studies of Grade 5 Bhutanese Students

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Abstract

This quasi-experimental study investigated the improvement of students' learning achievement and learning satisfaction using Place-Based Education (PBE) in teaching and learning Social Studies of grade 5 Bhutanese students. A mixed method was used with a total of 31 students selected through a purposive sampling from one of the semi-urban schools in western Bhutan. The quantitative data collected through the pretest and posttest were analysed and interpreted using an inferential statistics t-test with $p \leq 0.05$ level of significance, mean, and standard deviation. Similarly, qualitative data was collected through the semi-structured interview and the data were analysed using thematic analysis. The result of the pretest and the posttest score analysis showed a significant difference between the posttest mean (14.45) and the pretest mean (8.37) with a mean difference of 6.08. The significant (p) value was .01, indicating a significant increase in the posttest scores as compared to the pretest. Subsequently, the data analysed from the interview confirmed that students derived positive learning satisfaction. Thus, the Place-Based Education approach enhances learning in Social Studies and this study recommends that teachers may also try teaching other subjects using the PBE approach to make their lessons engaging and exciting for the learners.

Keywords: Social studies, Place-based education, Learning achievement, Learning satisfaction, Grade 5

Introduction

In order to attain the goal of education, there has been a remarkable revolution in educational systems and policies across the globe, including changes to the curriculum, methods of school administration, and teaching pedagogies. Similarly, curriculum updates and reforms in educational policies were made in Bhutan. The Bhutan Education Blueprint 2014 to 2024, an official document that envisions the way forward for reforming the educational system of Bhutan clearly highlights the goals and methods underlying the country's educational system. One of the most crucial reforms is to ensure that students' competencies are on par

with international standards (Ministry of Education, 2014). The enhancement of student knowledge, attitude, values, competencies, and engagement is the primary objective of the Ministry of Education, Bhutan, however, meeting international standards for such goals remains challenging. Furthermore, the Royal Education Council (2018) stated that a paradigm shift in teaching and learning has occurred due to the country's adoption of the New Normal Curriculum (NNC) after the pandemic. The new transformation to the teaching and learning system is based on the concept of competency-based learning, however, they are rarely realised because of the pedagogical approaches used in the classroom (Gyeltshen & English, 2021).

Despite a series of educational reforms in policies and updates to the curriculum, Bhutan's education system has been still dominated by the traditional teaching approach which is too text-book-based (Rinzin, 2021). Moreover, the research findings from Sherab and Dorji (2013) suggest that there is a need for a shift in Bhutanese teachers' pedagogical practices in classroom teaching and learning. Furthermore, the study revealed that there are many teachers who need to change their attitudes and approach to teaching. Therefore, to enhance the learning outcome of the learners, Bhutanese teachers must embrace the latest teaching approaches to enhance students' achievement and effective engagement. In other words, teachers of Bhutan need to upscale and rescale their teaching strategies and approaches in order to tailor the needs of twenty-first-century learners.

Literature reveals that Place-Based Education (PBE) is used across many domains of learning for a broad range of reasons and purposes. It is a method of teaching and understanding a subject that involves using the local community and surroundings as a reference point. It is one of the emerging teaching approaches that possess a lot of scope not only for the teachers but also for students to be resilient, adaptable, and adjustable to the immediate environment. By incorporating the approach, teachers can engage learners actively in the lesson. Most learning activities were learner-centred since the approach focuses on learning by doing. Giffin (2019) asserts that PBE focuses on relating the text to context so that students may investigate their local communities and become well-versed in the beliefs, lifestyles, and resources accessible while still participating in the teaching and learning process. Place-Based Education is founded on the resources, issues, and values of the local community and emphasises using the local community as an integrating framework for learning (Powers, 2004 as cited by Yilmaz and Karakuş, 2018). Furthermore, Powers (2004) supports that the Place-Based Education approach helps students improve their performance while also boosting the quality of the community's environmental, social, and economic welfare by fostering the rise of cooperation between schools and their communities.

A rational explanation for places, which are localities, can be found in the human experiences that occur there. The sense of place reflects the meanings and attachments that people or groups have given to certain locations (Semken, 2005). The sense of place is significantly influenced by individual experiences in a place. Additionally, how well people perceive their immediate surroundings may impact how well they can recognize distant contexts (Yilmaz & Karakuş, 2018). Similarly, Yilmaz and Karakuş (2018) highlighted that education-related activities are crucial in helping people recognize their surroundings and feel

a place. As a result, rather than implementing existing curricula created by others, teachers should construct new ones. They ought to be able to draw links between the arbitrary events that might take place outside of the classroom and the district's performance standards for learners.

Sobel (2004) states that PBE is a process that uses the local community and environment as a foundation for learning and teaching concepts in all disciplines. In other words, Place-Based learning is usually multidisciplinary and interdisciplinary. Place-Based Education, which is employed in the teaching of language, the Arts, Mathematics, Social Studies, and Science, enhances students' perceptions of local history, culture, ecology, landscapes, opportunities, and experiences with them (Yilmaz & Karakuş, 2018). It encourages teachers and students to use community resources such as playgrounds, public spaces, and other distinctive locations to transform communities into classrooms (PEEC, 2010). Additionally, by integrating the distinctive features of a particular location, this teaching method enables learners to bridge the connection between their life beyond the school and the classroom (Smith, 2002 as cited by Yilmaz & Karakuş, 2018).

Place-Based Education is a multidisciplinary approach and places an emphasis on gaining experience in students' local communities (Yilmaz & Karakuş, 2018). Similarly, Social Studies also cover multidisciplinary, including subjects from other fields. As a result, there are many similarities between Place-Based Education and Social Studies courses, and implementing this approach could be effective for teaching and learning Social Studies. There are numerous studies that have proven that the PBE teaching approaches could engage learners meaningfully. The study conducted by (PEEC, 2010; Koinis, 2016; Linnemanstons and Jordon, 2017; Tinder, 2018; Akbaş and Çakmak, 2019; Kezang, 2019; Dorji, Kinley, and Sivitskis, 2021) revealed that the Place-Based Education approach improves learning achievement, engages students in learning and enables learners to gain hands-on experience. Numerous studies have investigated the effectiveness of the Place-Based Education approach, but there are limited studies conducted on the teaching of Social Studies incorporating PBE in Bhutan.

Place-Based Education encourages students to take ownership of their communities and surroundings by educating them about their community and local environment (PEEC, 2010). In a nutshell, it emphasises hands-on experiences and real-world learning, which ultimately enhances students' academic achievement, supports students in developing stronger connections to their community, and increases their appreciation for the natural world. However, only a few numbers of studies on PBE have been conducted in Bhutan. Therefore, the present study aimed to examine the learning achievement and learning satisfaction of the researcher participants after incorporating of Place-Based Education approach in teaching and learning Social Studies.

Research questions

1) Would there be any improvement in grade 5 Bhutanese students' learning achievement in Social Studies after using Place-Based Education?

2) Would the grade 5 Bhutanese students exhibit learning satisfaction in Social Studies after using Place-Based Education?

Population and target group

The study was conducted in one of the primary schools in western Bhutan. The participants were 31 (19 female and 12 male) in grade 5 Social Studies who were taught using Place-Based Education (community as a classroom).

Conceptual framework

Learning achievement and learning satisfaction were the dependent variables, and the use of the Place- Based Education approach was the independent variable. Below is an illustration of the study's conceptual framework.

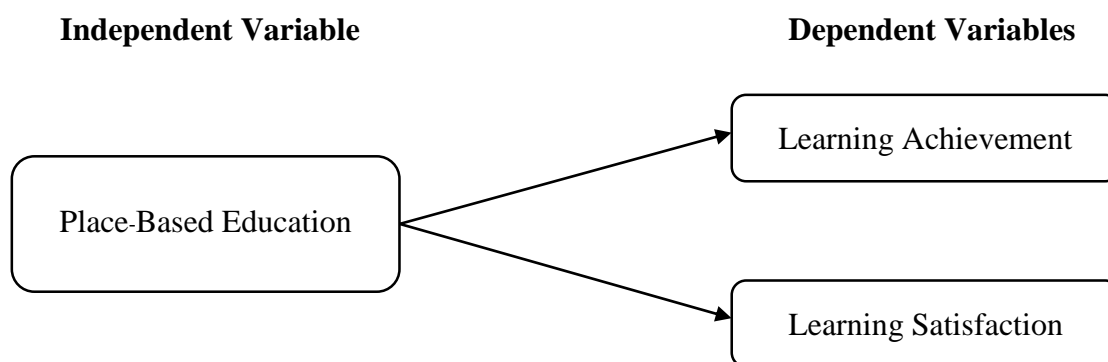


Figure 1 Independent and dependent variable for the study

Social studies curriculum in Bhutan

The Bhutanese Social Studies curriculum for classes IV- VI in Bhutan was developed and then piloted in 28 selected primary and lower secondary schools in the year 1992. The second edition was carried out in 2002. In order to update and further revise the existing curriculum, the Royal Education Council [REC] has initiated a series of meetings and consultations with curriculum experts, teachers, and other stakeholders. Subsequently, in the year 2009, facts and figures, maps, pictures, diagrams, and language were updated and corrected (REC, 2020, p. 8).

Dorji (2021) asserts that with the update in the topographical area and development toward democracy, the system was reformed, and the Department of Curriculum and Research Development (DCRD) of the Ministry of Education, as well as schools, have both expressed the urgent need to modify this subject immediately. The curriculum should be dynamic and relevant to the time. Thus, REC initiated and coordinated a writer's workshop involving teachers, officials from the Bhutan Council for School Examinations and Assessment (BCSEA), and the Education Monitoring Support Services Division (EMSSD) carried out a review of the Social Studies curriculum as a part of the periodic review in 2010. Further, in 2012, textbooks for classes IV-VI were reviewed and updated (REC, 2020).

Social Studies is intended to:

- 1) Develop an understanding of human-environment interaction and its impacts.
- 2) Understand the system of government and its functions.
- 3) Inculcate moral, social, and cultural values.
- 4) Preserve and promote national identity.

Social Studies provide learners with relevant competencies to enhance critical thinking as well as the ability to relate well with friends, families, and other social groupings for the benefit of society as a whole (Mufalo et al., 2021). Rashmi (2020) Social Studies help students to understand the importance of the origin, learn their history, and develop a civic sense. They are equipped with the knowledge and skills to fit in society. Furthermore, REC (2020) highlights that teaching Social Studies builds interdisciplinary and cross-curricular skills, concepts, knowledge, and values; facilitates the integration of knowledge, skills, and values within and across subject areas; and enhances creativity and critical thinking, collaboration, and cooperation for active engagement of learners in learning processes.

Place-Based Education

Place-Based Education (PBE) is emerging as a progressive alternative to the education system's standardized, decontextualized curricula, which have currently and historically been characterised (Pasiechnyk, 2018). Place-Based Education focuses on teaching and learning with local communities, learning by doing, learning in the real field, learning by engaging in the place, and making text-to-life connections. In other words, PBE uses the local community and immediate environment as the starting place for their learning.

Smith and Sobel (2010) stated that there are various educational models used in the present day, and each model's concept of PBE is different. However, each PBE component focuses on the basic values of citizenship and students' meaningful engagement with their communities and environment. Place-Based Education is an experiential, multidisciplinary learning approach that builds knowledge of the immediate environment and the community (Dorji et al., 2021). According to the Teton Science School, there are six core principles of Place-Based Education as follows;

- 1) Local to Global Context
- 2) Learners-centred approach
- 3) Inquiry-Based
- 4) Design Thinking
- 5) Community as Classroom
- 6) Interdisciplinary

In order to incorporate one of the principles of PBE (community as a classroom), the researcher prepared lesson plans following the 5Es model. The 5Es model was developed by Robert Bybee and derives its name from the 5Es; Engage, Explore, Explain, Extend, and Evaluate. The 5Es cycle has shown to be an extremely effective approach to learning. The study findings confirmed that the use of the 5Es learning cycle model has shown to be an

extremely effective approach in improving the learner's understanding of the subject or concept (Ihejamaizu et al., 2018).

Pasiechnyk (2018) supports that PBE approaches can enhance student learning in the following categories: 1) performance according to curricular learning outcomes, 2) social-emotional well-being, 3) thinking and learning skills such as creativity and critical thinking 4) engagement of improved environmental attitudes of personal agency rural, or students with learning disabilities, 5) benefits for otherwise marginalised learners. Thus, PBE approaches not only foster students' academic achievement but also enhance life skills.

PBE focuses on learning experiences that give students the opportunity to do valuable work and integrate local problems and knowledge into the curriculum (Smith & Sobel, 2010). The study conducted by Yilmaz and Karakuş (2018) concluded that the Place-Based Education method attained learning goals significantly higher as compared to the control group of students receiving normal classroom instruction. It is also in line with the study conducted by Kezang (2019) on the teaching of science indicating that Place-Based Education improved students' learning achievement. Furthermore, the qualitative data analysis revealed that it motivated the learners and demonstrated positive opinions about the use of the Place-Based approach. Thus, findings from the above studies demonstrated highly commendable results.

In this study, the Place-Based Education approach, proposed by the researcher, was expected to have an impact on delivering practical Social Studies lessons to the research participants. The curriculum of Social Studies in Bhutan emphasised several goals and key outcomes guided by ten principles of Place-Based Education. All these principles acted as a guiding framework in attributing effective learning models in Social Studies classrooms. Community as classroom approach catered to promoting significant learning achievements in the students. The students learned to work scientifically when the students were actively engaged in the community in investigating and constructing knowledge using this approach. They came up with solutions for the challenges that were already present and used their investigative skills to look into important social issues and concerns. Therefore, PBE approaches foster learners to engage meaningfully in their learning.

Learning theories

Sociocultural learning theory

According to Vygotsky's sociocultural theory, human development is considered a socially mediated process in which children acquire cultural values, attitudes, and problem-solving abilities through collaborative interaction with more experienced members of society (McLeod, 2020). The theories emphasise the importance of social interactions in the formation of cognition since Vygotsky strongly considered that community plays an essential role in the process of making meaning. Community learning using the immediate place and people is one of the unique features of a PBE approach. Besides that, he argued, "Learning is a necessary and universal aspect of the process of developing culturally organised, specifically human psychological function" (1978, p. 90). The PBE approach can enhance social learning because interaction is a key component of this approach. The PBE approach allows learners to explore

the immediate environment in which they live. Community learning is one of the most important principles of PBE. It not only provides learners interaction within themselves but also with the people living around them. Therefore, the theory suggests that interaction with more experienced members of society enables children to develop cultural values, attitudes, and problem-solving abilities in general. Thus, this theory suggests that instead of using the traditional method of teaching the subject, incorporating Place-Based Education (community as a classroom) into the lessons could make the learning more effective and engaging. Through a collaborative effort with more experienced members of society, the learners could enhance their problem-solving abilities and skills.

Experiential learning theory

Dewey and Piaget were educationists and psychologists who proposed the experiential learning theory. In an experiential learning process, experience plays a vital role. Experiential learning immerses students in real-world circumstances, providing them with meaningful lessons (Kolb, 1984). Experiential Learning Theory is a profound foundational approach to learning, development, and change in all forms. Experiential learning outlines the optimal learning process, enables one to understand oneself as a learner, and empowers one to take control of one's own development and learning. PBE falls under the first stage of Kolb's cycle, which is the concrete experience stage. The learning cycle indicates that students can examine and explore new experiences for future learning by converting experiences into concepts through reflection (Young, 2017). Similarly, PBE is also conceived on the experiential learning theory, whereby the learner learns through hands-on experiences, reflection on what has been learned, and experimenting in innovative ways. Furthermore, one of the key principles of the experiential learning theory is that when students learn something by doing, one's learning is enhanced. For children to learn new concepts like watersheds, hands-on experiences might be more successful. Teachers should therefore design lessons that actively involve students, spark their curiosity about the subject matter, provide chances for hands-on learning, and promote active learning throughout class activities. Thus, using PBE in the classroom can be one of the solutions to provide more effective, active, and engaging lessons in the teaching of Social Studies. Students can understand abstract concepts more easily when they learn how to connect with the immediate environment.

Research methodology

This study was conducted with the aim of examining the learning achievement and learning satisfaction of the research participants after incorporating Place-Based Education in teaching Social Studies. A pretest was conducted with the target group before the treatment incorporating Place-Based Education. After the pretest, the target group was treated with a Place-Based Education approach for four weeks. A posttest with the same set of questions was administered after the intervention. Then, a semi-structured interview was conducted in a group of five to ascertain their learning satisfaction with the use of the Place-Based Education approach. Subsequently, the data obtained from the learning achievement tests and the semi-structured interview were analysed and interpreted using the reflexive thematic approach.

This study used a mixed-method research design incorporating both quantitative and qualitative research methods. Quantitative data collection, a pretest, and a posttest were deployed, and a semi-structured interview for qualitative data. The purposive sampling method was deployed in the study. In order to achieve a comprehensive understanding and reinforcement, mixed methods research employs both qualitative and quantitative research approaches (Johnson, Onwuegbuzie, & Turner, 2007).

Instructional instrument

Lesson plans

In this study, the researcher prepared a total of four lesson plans with 90 minutes (1 lesson plan = 2 sessions) to teach Social Studies to the research participants incorporating one of the principles of PBE (Community as a classroom) with the 5Es model. The sessions were spread over four weeks with two sessions per week. In all the sessions, participants got a chance to explore their immediate environment for learning. Students were engaged by visiting a nearby locality to explore human activities and identify preventive ways to reduce pollution, effective management of waste, and ways to conserve the environment. The researcher adopted four steps of the field visit (community as a classroom) which is one of the principles of Place-Based Education. The four steps of a field visit are; to plan with intent, frame the experiences, ensure experiential learning, and connect and reflect (Schneider, 2016). The following table outlines the lesson topics and the learning activities that the researcher incorporated into the study.

Table 1 Lesson outline with topics and activities

Week	Topics	Activities of PBE
I	People and the Environment Session 1: Introduction on the people and the environment and human activity. Session 2: Livestock and industry.	Field visit to the community to explore human activities in the locality.
II	Impact of pollution Session 1: Type of pollution. Session 2: Impact caused by the various types of pollution.	Field visit to the dumping yard to investigate the types of waste in their community.
III	Waste Management Session 1: Different types of waste and effects on environment/humans. Session 2: Measures to reduce the waste	Investigate degradable and non-degradable waste by service learning in the school.
IV	Conservation of the environment Session 1: Afforestation and reforestation. Session 2: Ways to conserve the environment.	Creating awareness of waste management in the school and community by displaying posters.

Quantitative data collection instrument

Learning achievement tests (pretest and posttest)

In order to ascertain the current competency level of the research participants, the researcher conducted a pretest for the research participants which consisted of 31 students in grade 5. The researcher provided a week-long preparation time for the test so that the outcome would be reliable and valid. The pretest question consisted of 5 marks for multiple choice, 5 marks for true or false, and 10 marks for short answer questions. The time frame to complete the test for them was one hour. The researcher used the same test items for both pretest and posttest in order to ensure consistency with the evaluation. The evaluation of both pretest and posttest were evaluated by assessors, including the researcher to avoid bias. The researcher administered the posttest using the same set of questions used for the pretest after four weeks of teaching using the PBE approach. This was done in order to compare the pretest and posttest scores to ascertain and conclude the effectiveness of the intervention strategy used.

Qualitative instrument

Semi-structured Interview

In order to ascertain the qualitative data findings accurately, a semi-structured interview was administered. The researcher developed six questions to help derive more accurate perspectives of the research participants towards the use of the Place- Based Education approach. The interview questions were categorised into six themes using thematic analysis. Before conducting the interview, the questions were clearly explained to the research participants after the intervention period.

Validity

Validity in research essentially refers to ensuring that the data are reliable and replicable and that the findings are accurate. Zach (2021) defines validity as a survey or test that measures and constructs to set out the measure. Three experts validated the lesson plans, test items, and semi-structured interview questions. Item Objective Congruency Index (IOC) was used to examine the validity of the instruments. Item Objective Congruence of the tools was to make sure that all items were aligned with the learning objectives. The researcher planned four lessons as the intervention tools. To guarantee their congruence with the stated research objectives, IOC validation was done by the aforementioned three experts. IOC was calculated using the formula: $IOC = \frac{r}{n}$, where 'r' is the score of individual expert ratings and 'n' represents the number of experts. The accuracy of test items with a value between 0.67 and 1.00 was considered accurate and acceptable whereas a value of below 0.67 indicates that the items need to be rephrased as per the expert's recommendation. The experts used IOC to validate research instruments; lesson plans; achievement test questions; semi-structured interview questions. The average rating for all the instruments was rated +1 by all the experts which indicated that all the items were congruent and valid.

Reliability

In order to determine the reliability of the learning achievement test questions, a pilot test consisting of 20-mark questions was conducted with grade 6 students of the same school. The Kuder-Richardson equation (KR-20) was utilised to find out the learning achievement test's reliability coefficient. The KR-20 coefficient for the instruments should be equal to or greater than 0.70 to be reliable. The KR-20 coefficient obtained was 0.713 which was greater than 0.70. Thus, the coefficient of 0.731 revealed that the test items were reliable.

Ethical consideration

Negligence in ethical considerations may undermine persons, researchers, and the community as a whole (Essay in UK, 2013). Therefore, the researcher sought prior approvals from concerned stakeholders. Firstly, the researcher forwarded the data collection letter issued by Rangsit University (dated July 8, 2022). Upon receiving the official letter of permission from the Ministry of Education in Bhutan with reference number: DSE/SPCD/SLCU (2.1) 2022/1538, the researcher proceeded to the research school to obtain permission from the principal, and the subject teacher in the research school. Moreover, the research participants were briefed on the purpose of the study before implementing the study plan. The researcher also obtained a letter of consent from the parents of every research participant since most of them were below 18 years of age.

The anonymity of the participants

The anonymity and confidentiality of the research participants' opinions and learning achievement records were coded through the number system. Research participants numbered student 1 (Std 1), student 2 (Std 2), and so on to ensure anonymity and confidentiality.

Analysis of achievement test score

A comparative statistical analysis was carried out using paired sample t-tests within the target group to examine the difference in the level of achievement between the pretest and the posttest. The mean scores of the pretest and the posttest were 8.37 and 14.45, respectively. The mean difference between the pretest and the posttest was 6.08. The results of the analysis indicated that the mean score of the posttest was higher than the mean score of the pretest as displayed in the table below.

Table 2 Comparison between the pretest and posttest within the target group

Group	Pretest		Posttest		Mean difference	T	P-Value
Sample group	\bar{x}	SD	\bar{x}	SD			
	8.37	4.189	14.45	5.422	14.45-8.37=6.08	7.333	0.01

The significant value (p) was .01 which indicated that there was a significant improvement in the scores of the posttest to the pretest of the target group. There were increased

scores in the post-test in all the students except for two students (Std 6 and Std 13) who remained constant. Thus, this was in line with the hypothesis that there would be an improvement in the learning achievement of grade 5 Bhutanese students in Social Studies after using Place-Based Education. Therefore, the application of Place-Based Education improved the learning achievements of grade 5 Bhutanese students in Social Studies be one of the effective strategies for teaching Social Studies.

To find out the effectiveness of Place-Based Education in improving students' learning achievement in Social Studies, the pretest and post-test scores were analysed. The pretest and posttest comprising 5 multiple choice questions, 5 true or false questions, and 6 short answer questions were provided to 31 grade 5 Bhutanese students before and after incorporating the PBE approach to answer the research's first question, "Would there be any improvement in grade 5 Bhutanese students' learning achievement in Social Studies after using Place-Based Education?"

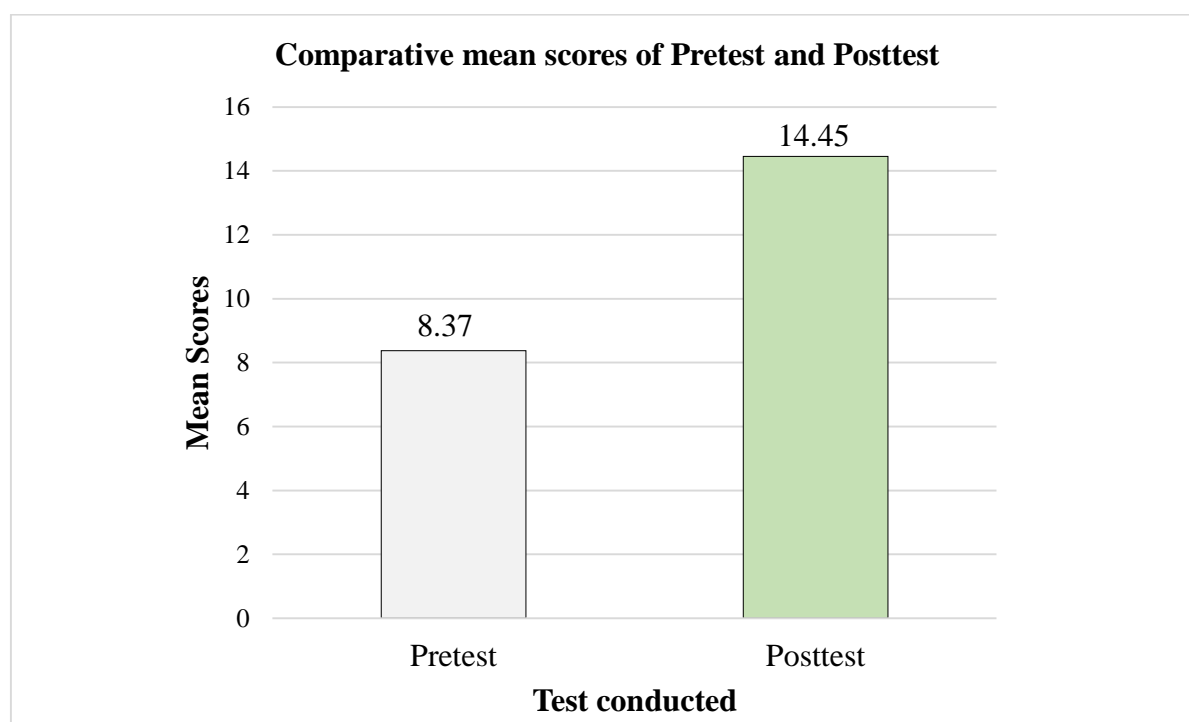


Figure 2 Graphical representation of present and posttest mean

Figure 2 supplements the interpretation of Table 2 which represents the mean scores for the pretest and posttest and they are 8.37 and 14.45, respectively. Since the posttest's mean scores were significantly higher than those of the pretest, it was evident that the intervention had improved the student's academic achievement, which was lower before the intervention. According to the figure above, the mean of the posttest was greater than the mean of the pretest. As a result, it provided a favourable response to the first research question and supported the response to the first research objective and hypothesis.

Therefore, as per the findings, the participants were able to perform better and achieve higher scores on the posttest than on the pretest. The data analysis revealed that the incorporation of the Place- Based Education teaching strategy resulted in a substantial improvement in the post- test scores as evidenced by the statistics of the mean, standard deviation, and significance value computed using paired sample t-test. As a result, the Place-Based Education strategy was found to be an effective method for teaching Social Studies and significantly improved the learning outcomes of Bhutanese students in grade 5.

Semi-structured interview

The researcher conducted interviews with the research participants at the end of the four weeks of intervention. The researcher included all 31 research participants in the interview in order to gather in-depth quality opinions and avoid any bias with the study. The researcher administered six interview questions after being reviewed and validated by three experts (one expert from Thailand and two from Bhutan). The six questions were; 1) How did you find learning Social Studies using Place-Based Education? 2) Are you satisfied with learning Social Studies using Place-Based Education? Why or why not? 3) What did you like the most from the lesson? Explain. 4) How did Place-Based Education help you to improve your learning? 5) Would you prefer to learn other topics through the use of Place-Based Education? Why or why not? 6) Share your overall view on Place-Based Education in Social Studies.

After that, the researcher translated and transcribed the recorded audio after the interview sessions. During the interview, participants were allowed to use the language that they were comfortable with in order to obtain reliable data. Due to the time constraint and the convenience of the research participants, the interview sessions were conducted in groups of 7 with 4 members and 1 group with 3 members respectively. The interview was audio-taped for the purpose of data analysis. The data gathered were transcribed and then analysed through the identification of themes. The data collected from the interview were analysed and transcribed following a peer review process in order to avoid bias. Further, the interview data transcription was validated by two expert teachers from Bhutan. The following six themes were derived after conducting the interview with the research participants;

Enjoyment in learning

Students were satisfied and excited with lessons when incorporating the Place-Based Education approach. One of the participants stated that “Exploring their environment in groups gave me a sense of satisfaction”. Everyone in the class was found participating actively in the activities without having to remind them. Students found out that the application of the Place-Based Education approach engages them and creates curiosity for learning. For instance, Student 3 from Group 1 stated, "Learning Social Studies using PBE has made the lesson interesting and fun. I got an opportunity to explore the real world around”. Furthermore, one of the participants from Group 5 shared that “I enjoyed the lesson because it was interesting and fun learning. I understood the concept better and easily since my learning took place mostly outdoors”. Similarly, a student from Group 2 stated “I felt happy and excited to learn Social

Studies because I got an opportunity to go out of the classroom. It was interesting and fun learning with friends. I feel and touch the real waste while learning about waste management.”

Learning satisfaction

As per the opinions and learning experiences shared by the research participants during the interview, the session revealed that using the Place-Based Education approach to learn Social Studies resulted in positive learning satisfaction. Most of the research participants shared that learning Social Studies using the PBE approach helped them to learn the subject better and they wish to learn other topics with an application of the Place-Based Education approach.

One of the participants from Group 3 said, “Learning Social Studies outside the classroom makes our learning better and more practical. I could see and feel the real situation beyond the classroom setting but be creative and innovative with the ideas to solve day-to-day issues”. One of the students from group 4 said “Exploring my school campus was purposeful and engaging to me. I have involved myself in waste management and environmental protection in the process of completing our lesson activities”. Also, some of the participants acknowledged that PBE activities were relevant and practical. One student said “I was asked to collect the waste from my school campus. After that, I segregated the waste into degradable and non-degradable waste”.

Active engagement

The research participants were found active during the learning activities in the respective groups. Students found out that PBE stimulates their interest in learning since most of the learning activities were conducted outside the classroom. Furthermore, the learning activities kept them engaged since the learning activities were planned and designed to work collaboratively rather than working individually.

The research participants highlighted that PBE improved their ability to learn social subjects. Student 1 from Group 8 stated “I could learn many things from the learning activities. On the same note, one of the students said “Learning the subject made it relevant and better when I got an opportunity to interact with my friends during the learning activities”. Similarly, “PBE is all about learning by doing and it allows us to be involved in activities that help us to enhance our memory. I was able to learn better when I learn by interacting with my friends” shared student 3 from group 5. Furthermore, one of the students from group 6 said “I liked it the most when I got to interact with my classmates and work together. It provided a platform where we could engage and learn together”.

Moreover, they were able to perform better in the posttest than in the pretest through the application of the PBE teaching approach. Student 3 of Group 1 said, “PBE helps me to improve my test scores. It not only made me actively engage and learn from my peers but also from the immediate environment that we live in”. Between the pretest and posttest, the majority of participants showed a significant improvement, which reflected their level of confidence in the subject.

Motivation in learning

During the interview, most of the research participants highlighted that they were highly motivated and curious to learn Social Studies when learning activities are Place- Based approaches. They could learn and connect easily with the concept since most of the learning activities were designed to deal with the surrounding environment. Student 4 of Group 7 stated “I really enjoyed the lesson since I could interact with the people and the environment around me. I enjoyed the Place- Based approach because it provides a good opportunity to contribute to my school and community”. Thus, it encouraged and inspired the participants to learn better.

Effective communication

The Place- Based Education teaching approach provided a better opportunity for participants to learn effective communication skills. Place- Based learning activities involved lots of interaction amongst learners and that provided an opportunity for them to communicate with their group members which in turn enhanced their spoken language. Student 3 of group 3 stated, “I got lots of opportunities to share my views and opinions during the group activities. By doing so it improved my communication skills”. After the activities, they presented their work to the whole class which enabled them to gain confidence. Thus, their communication skills were automatically enhanced by actively participating in the class. Learning activities assigned in groups demanded them to collaborate, cooperate, and communicate with each other. Student 4 of Group 4 said “Throughout the session, my teammates taught me a lot. Group discussion was prolonged even during recess and prepared for the group presentation. Such constructive discussion leads to better communication”.

Revolution in learning

More than 90% of the interviewees responded that using Place- Based teaching and learning was a new approach in Social Studies. They wished to learn subjects such as English, Mathematics, and others incorporating PBE since it positively impacted their learning. Student 3 from Group 3 said, “I prefer not only to learn Social Studies using the PBE approach but also other subject teachers to incorporate the approach to make our learning interesting and engaging.”

Most of the respondents answered that they were usually taught Social Studies using chalk and chalkboard, text, and lecture methods which didn’t motivate them to learn and explore. However, the Place- Based Education approach kept them active and engaged. One of the members from Group 6 said, “In most of the classes, I used to feel restless and bored attending the class but place- based learning kept me active during the activity. It provided me more time to explore myself rather than the teacher explaining the content or text. The teaching and learning take a different way whereby I was mostly kept engaged by letting me explore and initiate myself”.

The overall findings indicated that the application of PBE for teaching and learning Social Studies was a new thing for them. It also has a positive impact on their learning as the use of Place- Based Education enhances students’ learning in Social Studies. Most of them

shared that learning Social Studies with the use of PBE helped them to learn the subject better and they preferred to learn other topics with the use of Place-Based Education. Furthermore, it made it easier for students to recall and retain the lesson rapidly. They excelled in the subject because they had a thorough comprehension of the material.

Discussions

The study's conclusion indicates that teaching grade 5 Bhutanese students Social Studies using the Place-Based Education approach was not only successful but also had a positive effect on their attitude toward learning. Furthermore, it indicated that integrating Place-Based Education to teach Social Studies had a significant impact on students' learning achievement. This study proved that the PBE strategy has positive effects on students' learning satisfaction and improved academic achievement of Bhutanese students in grade 5 in Social Studies.

The effectiveness of the learning achievement test

The first finding was that the application of the Place-Based Education approach enhanced grade 5 students' learning achievement in Social Studies. The mean difference of 6.08 in the pretest and the posttest of the target group was evident that there was a significant improvement in their learning achievements after treatment was employed. The significant value was found at .01 which indicated that incorporating Place-Based Education approaches positively improved the learning achievement of the participants.

The above finding was in line with Kezang (2019) who conducted a study to investigate the learning achievement of grade 6 Bhutanese students. The study findings revealed that there was a significant mean difference of 5.42 between the posttest and the pretest. Moreover, the research result showed a significant value of $p .01$ which signified the effectiveness of the Place-Based Education approach in improving students' learning achievement. Similarly, Akbaş & Çakmak, (2019) conducted a study to examine the effect of Place-Based Education integrating project studies on students' problem-solving and social skills. Their study result indicated that there was a significant difference in the mean scores of the student's problem-solving and social skills between the pretest and the posttest. Additionally, the finding was also parallel to a study conducted by Yilmaz and Karakus (2018) where findings supported the fact that incorporating the Place-Based Education approach in the classroom had a positive impact on the academic achievement of the students. Their study findings concluded that many of the students preferred to learn using the PBE.

Participants' learning satisfaction

The students' positive learning satisfaction with the application of Place-Based Education in Social Studies was the study's second major finding. PBE was regarded as a fun, active learning, and adventurous method of teaching and learning Social Studies. It was discovered that it inspired the participants and increased their identity in Social Studies. They had the ability to better grasp and remember the lesson due to the learning activities.

According to the interview findings, every participant found the lessons to be engaging, interactive, and interesting. It was paralleled with the study done by Tinder (2018) where the findings of the study showed that PBE improved academic results, had an effect on students' sense of place and stewardship, and raised student engagement in active learning. Learning was also said to be considerably quicker and simpler. Furthermore, it exceeds conventional teaching approaches and has a positive impact on students' participation in outdoor learning activities. As a result, considering that they did better on PBE-related material, PBE has the capacity to leave a significant and long-lasting impression on students.

The results of the interviews revealed that the students were extremely motivated and showed positive learning satisfaction when Place-Based Education approaches were used to teach and learn Social Studies. This outcome was consistent with the PEEC (2010) study, which examined the individual and cross-program evaluation of ten PBE programs. The findings clearly indicated that PBE fosters students' sense of place and builds a strong connection between schools and communities. Along with raising student success, it also strengthens social, environmental, and economic vitality. The idea of Vygotsky's Social Culture Theory, which holds that human development is a socially mediated process in which children acquire cultural values, attitudes, and problem-solving skills through cooperative interaction with more experienced members of society, is also supported by a study conducted by (McLeod, 2020).

Given the overwhelming majority of participants' positive feedback, the researcher came to the conclusion that Place-Based Education is one of the most effective methods for teaching Social Studies to Bhutanese students in grade 5. Therefore, with all the positive opinions expressed by almost all the participants, the researcher concluded that Place-Based Education is one of the practical approaches to teaching Social Studies to grade 5 Bhutanese students.

Conclusions

Numerous studies carried out by researchers around the world on the Place-Based Education approach indicated that the test scores, interpersonal skills, and more effective peer collaboration. Place-Based Education not only improved students' learning achievement but also motivated the learners and demonstrated positive opinions (Dorji, Kinley, & Sivitskis, 2021; Akbaş & Çakmak, 2019; Kezang, 2019;). Thus, the teaching and learning of the twenty-first century demand innovative approaches that could strengthen three learning domains: cognitive, affective, and psychomotor. The main objective of classroom teaching and learning should be the application of multiple classroom pedagogies that best suit individual learners in order to strengthen learning competency (Gyeltshen & English, 2021). Bhutanese classroom teaching and learning are mostly dominated by traditional teaching approaches. Therefore, incorporating the Place-Based Education approach to a greater extent in a classroom would strengthen students' smooth transactions in the rapidly changing world and such teaching approaches must be applied in the Bhutanese context.

Limitations and recommendations

The application of the Place- Based Education approach could enhance learning achievement. In this study, the researcher included only grade 5 students (31 participants) in one of the primary schools, hence, it cannot be generalised to different grades of students incorporating a Place- Based Education teaching approach to enhance students' learning. Therefore, the future researcher could conduct studies including students' multiple grades and in different subjects, particularly in the Bhutanese classroom setting, as this may provide support for the application of Place-Based Education in the Bhutanese classrooms.

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