Journal of Research and Curriculum Development, Vol.13, Issue.2, July – December, 2023
ISSN: 2730-387X (Online) https://so03.tci-thaijo.org/index.php/jrcd/index

The Integration of Field Trip with Multimedia Technology for Learning Achievement in Social Studies of Grade Four Bhutanese Students

Nima Tshering[1*] Nipaporn Sakulwongs[2]

[1]Master's Program student, Suryadhep Teachers College, Rangsit University, Pathum Thani, Thailand 12000

[2]Suryadhep Teachers College, Rangsit University, Pathum Thani, Thailand 12000

*Corresponding author e-mail: nima.t64@rsu.ac.th

Received: August 31, 2023
Revised: October 26, 2023
Accepted: November 20, 2023

Abstract: The aim of the quasi-experimental method of quantitative and qualitative study are as follows: (1) to compare the learning achievement of Grade Four Bhutanese students in Social Studies before and after a field trip with multimedia technology; and (2) to investigate the extent of learning satisfaction among Grade Four Bhutanese students in Social Studies after using a field trip with multimedia technology. The study was conducted in one of the primary schools in southern Bhutan over a period of a month in the 2023 academic year. The research participants consisted of 30 Bhutanese students and the researcher used them as research participants since the research school has only one section of Grade Four. The instruments used for the study were lesson plans, learning achievement tests (pretest and posttest) and a semi-structured interview. The quantitative data were analyzed using a paired sample t-test and the qualitative data through thematic analysis with $p<0.05$ level of significance. The results of the pretest and posttest score analysis through paired t-test showed a significant improvement in the posttest (M =16.27) than the pretest (M =10.47). The mean difference of 5.80 and the two-tailed significance (p) value was .01, which indicated that the integration of field trip with multimedia technology improved learning achievement of the students and was effective in teaching Social Studies. Similarly, the data was collected through semi-structured interviews and concluded that participants expressed a high level of learning satisfaction and also motivated them to learn better and develop positive relationships. Thus, this study recommends integrating field trip with multimedia technology as an alternate tool to teach Social Studies and make the lessons entertaining, engaging and efficient.

Keywords: Field trip, Multimedia technology, Learning achievement, Learning satisfaction, Grade four students

Introduction

In Bhutan, education is highly regarded and seen as a pillar of national progress and the concept of Gross National Happiness (GNH). Bhutan has a decentralized formal education system which includes schools at various levels, and a standardized curriculum with an emphasis on Bhutanese culture and values. The educational system of Bhutan has been a key trend in recent years due to the rapid revolution and globalization of educational systems. The Ministry of Education and Skills Development has been working hard on numerous reforms and plans to boost the quality of education. The major reframing of curriculum (New Normal Curriculum) with various stakeholders in 2018 by Royal Education Council, and later the National School Curriculum in 2021 was a great paradigm shift in education history (REC, 2021). The Competency-Based Learning with the use of digital technology in classroom was the foundation of the new changes. The use of Information and Communication Technology (ICT) plays a significant role in the lives of 21st century students. Technology can enrich teaching and learning process thus, making teaching more appealing to diverse learners. The positive attitudes of students are enriched by the use of technology in the classroom, and may conveniently access online resources for further learning (Bhadauria, 2019; Department of Curriculum and Professional Division, 2022 & Mantiri, 2014). The curriculum, policies and approaches were updated and reformed based on the Bhutan Education Blueprint (2014-2024), a formal document that envisioned

pathways towards building an educational system and to create nationally rooted and globally competent students.

With the tremendous reforms in the education system, the decline in the quality of education and student performance was a subject of great anxiety in Bhutan. His Majesty the King's national address on 17th December, 2020 stated that the quality of education had declined over the years and that educators have failed their students (Lamsang, 2020). This may be due to the fact that conventional teaching methods still continue to dominate the Bhutanese educational system. It is more teacher-centered learning and students were given less time for hands-on experience. The teaching approach of complex order thinking and development of motor skills was less than in the lecture method. Thus, the students lacked social skills as they barely got to interact in the classroom (Dolma, 2018; Kapur, 2020; & Rigzin, 2021). Furthermore, the findings by (Dorji, 2021; Gyeltshen & English, 2021) revealed that the performance in Social Studies deteriorated significantly. There may be a number of factors contributing to the declining performance of students in the subject, but it was clear that teacher-centered instruction predominated in the classroom and that the lack of exploration, innovation, and enthusiasm of the students in learning was the biggest problem. According to the findings of Davis (2016), to be competent in the digitalized era, students should be prepared with 21st century skills. Subsequently, teachers must also possess 21st century skills and the methodologies to effectively teach students. Based on the findings, the researcher carried out a study on the integration of the field trip with multimedia technology (videos and PPT) in Social Studies for Grade Four students in a primary school in southern Bhutan. Social Studies is one of the major subjects of a school curriculum in Bhutan and taught in upper primary Grades Four to Six. It is a basic for all the humanities and social science subjects. The main motive of infusing this subject in the curriculum is to make learners more competent to face the world by learning with hands-on experiences and acquire critical thinking, problem-solving and decision-making skills with values installed in young minds to become responsible citizens (Department of Curriculum and Professional Division, 2022). It also deals with the study of human beings and their interdependence and correlation in society (Osakwe, 2010).

Although a number of studies were conducted and shown the positive results of using a field trip with technology across the globe. However, no research has been done on Social Studies on the learning achievement and satisfaction students using the integration of a field trip with multimedia technology (videos and PPT) in the Bhutanese classroom context. Since the topics and content coverage in Social Studies are extensively found in the environment and the society we live in. Therefore, teaching strategies and planning should be more focused on outdoor and student-centered activities. Among diverse methodologies, a field trip is considered to be the most effective and appropriate instructional tool to make learning more dynamic and memorable. It is classroom learning beyond the conventional approach by giving students actual experiences in authentic contexts, motivating them to learn better and gaining learning satisfaction (Ayaaba & Odumah, 2017; Behrendt & Franklin, 2014). Similarly, studies done by (Dema, 2018; Nadelson & Jordan, 2012) asserted that field trips take place at countless locations with an intent to learn, experience, observe and be exposed to different settings. Experiential learning, which is trustworthy, more exploration and sensory-based learning is best achieved through the field trip. Furthermore, the trip can enhance teamwork and social skills among teachers, students and the community. Addo (2020) supported the idea that through field trip students performed extraordinarily well on the test. Furthermore, academically challenged students were motivated to learn more and perform better in academic settings.

The advancement of technology has a significant impact on all aspects of life including education and the educational system of Bhutan is no exception. The use of multimedia technology in teaching enhances learning and makes it more dynamic, longer lasting and even more relevant outside of the classroom. Through a variety of interactive tools and online resources, technology has greatly changed teaching and learning in the digital age. Today students are tech-savvy learners or so-called digital natives and technology in lessons had positive outcomes in learning (Seldon & Sakulwongs, 2023). Many researchers across the globe are studying about the quality of education integrating with multimedia technology in the lessons. Multimedia technology, according to Pavithra (2018), as an electronic device used to store multimedia content. It is comprised of computer-controlled blending of animation, audio, graphics, videos, photos and text, where any sort of information is stored and communicated digitally. The evolution of technology has given teachers the chance to create instructional videos for efficient lesson delivery. Thus, successful delivery of educational content, and multimedia technology including images, videos and PPT are used by teachers. In the findings of Mayer, Dow & Mayer (2003), the use of multimedia technology in the classroom has a huge impact in student learning and retention. Students can only learn actively when they watch videos and PPT and engage in cognitive processing that divides the content into verbal and graphical components based on prior knowledge. Moreover, multimedia content allows students to visualize abstract concepts, helping them to understand complex topics more effectively. As a result, there is a significant learning outcome with high retention. Subsequently, Scott & Matthews (2011), proved that the integration of a field trip with multimedia technology further inspired active participation, hands-on learning experience that can enhance comprehension and retention, and fostering critical thinking and problem-solving skills that students need for their future careers. Such recorded videos and experiences can be related by students in their post-field trip activities in the classroom. The use of field trip with multimedia technology can be done with all grade levels and fun to learn.

In this quasi-experimental study, the researcher used mixed methods research design to generate quality and consistent results from the study. The pretest was done before the actual intervention, whereas the posttest and the semi-structured interview was carried out only after the complete intervention of the approach. The quantitative data collected through the pretest and the posttest were analyzed and interpreted using an inferential statistics t-test with (p) level of significance. Additionally, the qualitative data through the semi-structured interview was analyzed using thematic analysis. In this study, the researcher included an independent and a dependent variable. The integration of field trip with multimedia technology was an independent variable whereas the learning achievement and satisfaction of the students were the dependent variables. Therefore, the researcher decided to examine the effectiveness of integrating a field trip with multimedia technology (videos and PPT) based on the research objectives: (1) to compare the learning achievement of Grade Four Bhutanese students in Social Studies before and after using a field trip with multimedia technology; (2) to investigate the learning satisfaction of the extent of Grade Four Bhutanese students in Social Studies after a field trip with multimedia technology. Accordingly, the findings will may provide teachers with a different, highly successful approach to enhance learning achievement and satisfaction in the subject among the students.

Research Methodology

This study used a quasi-experimental design with a blend of quantitative and qualitative approaches. The mixed method research design is the finest methodology which enabled researchers to generate quality research and consistent results from the study. In terms of mixed methods, the research design consists of planned blend approaches for data collection, data analysis, and interpretation of evidence (Shorten & Smith, 2017). The pretest and the posttest were used to gather quantitative data to determine the learning achievement of students before and after the use of a field trip with multimedia technology. The researcher also used semi-structured interviews to find out the learning satisfaction of students after the intervention. The researcher applied those methods to gather the in-depth findings of the study.

Research participants: The study was conducted in one of the primary schools in the southern region of Bhutan. The target participants of the research were Grade Four students from a school in the Chhukha district. The researcher used them as research participants since the school has only one section of Grade Four in the 2023 academic year. A total of 30 students of mixed genders and abilities within the age range of 10-12.

Research Instruments: The study was conducted with the aim of determining the effectiveness of the integration of a field trip with multimedia technology in teaching Social Studies among Grade Four students and to produce quality research with reliability and valid results. The study was carried out based on the three different research instruments to collect the data. Four lesson plans were used to teach the lessons, learning achievement tests (pretest and posttest) were used to collect quantitative data and for the qualitative data, the researcher used semi-structured interview to identify the learning satisfaction of students after the intervention.

Lesson plans: In this study, the researcher designed four lesson plans which consisted of 90 minutes each to teach the Grade Four research participants about 'Local Government' from the Social Studies subject. The lessons were taught over four weeks with two sessions per week of 45 minutes each. The lessons were prepared incorporating a field trip with multimedia technology (videos and PPT) to have effective learning for research participants. In all the sessions, the participants visited nearby local government office, explored the campus and interviewed different stakeholders about their roles and responsibilities. During the sessions, participants recorded short video clips and images in their smart phones for further understanding and learning lessons.

Learning Achievement Tests: The learning achievement test was comprised of a pretest and posttest were used to collect the quantitative data for the study. The learning achievement tests consisted of 20 marks which was developed as per the Bloom's Taxonomy and the standard guidelines of Bhutan Council for School Examination and Assessment (BCSEA). The learning achievement pretest was conducted before the actual intervention of the lessons integrated with field trip and multimedia technology. The questions comprised of 10 marks for multiple choice questions, five marks for true or false and five marks for short answer questions were conducted after the intervention as a posttest and compiled for further analysis. The time frame to complete the test for them was one hour.

Semi-Structured Interview: According to DeJonckheere & Vaughn (2019), semi-structured interviews in the research will assist researchers to conduct their study efficiently by collecting open-ended data from the participants. It provides researchers with the true thoughts and understanding of the participants to find the learning satisfaction of the

participants of the study. The researcher used a semi-structured interview to collect qualitative data on the use of field trip integrated with multimedia technology after the intervention. Five questions were asked face-to-face for around 4-5 minutes. The language used for the interview was optional, the participants had the choice of speaking in English or Dzongkha (national language). Their responses were audio-recorded by the researcher and later the researcher translated and transcribed into English. Those semi-structured interview data were further analyzed using the thematic analysis method.

Validity: According to Taherdoost (2016), content validity is defined as how well a method measures what it is designed to measure. In this research, three experts validated the research instruments. The lesson plans, test items, and semi-structured interview questions were validated by a professor from Rangsit university, Thailand and two experienced Social Studies teachers with a Master's degree from Bhutan. The validity of the instruments was carried out using the Item Objective Congruence (IOC) index ranging from -1 to +1 to check the alignment of the items with the learning objectives. The rating +1 on the Item Objective Congruency Index signified that the items clearly matched the objectives set. The rating 0, indicates that the items set as per the objectives are neutral or uncertain whether the items meet the objectives or not. Furthermore, the rating -1, it clearly denoted that the items set for the research does not meet the set objectives. IOC was calculated using the formula: IOC Σ=r/n, where 'r' stands for the sum of the score of an individual experts and 'n' refers to the number of experts. The accuracy and acceptability of the test item value was between 0.67 and 1.00, which was calculated using the statistical formula. All the instruments for this study were validated and rated +1 by the validators, which indicated that all the items were congruent and valid for the study.

Reliability: According to Flateby (2017), the most standard and reliable way of finding reliability coefficient of the learning outcome test was the Kuder-Richardson equation (KR-20). To determine the reliability of learning achievement tests, the researcher conducted a reliability test of 10 marks for multiple choice, five marks for true or false and five marks for short questions with 30 Grade Five students studying in the same school. The reliability test was done prior to the actual intervention and the data gathered from the learning achievement test was calculated using Kuder-Richardson formula (KR-20) from Statistical Package for Social Sciences (SPSS) software. The reliability test was conducted with Grade Five students to assess the required standards of learning achievement test questions, to ensure the trustworthiness and consistency of research findings. The coefficient obtained for the reliability test using KR-20 was 0.80, which was greater than 0.70. Thus, the results indicated that the instruments were reliable to be used in the study.

Data Collection: At the beginning of the study, the researcher obtained an approval letter from concerned stakeholders to carry out the research. Then all the students in the class were informed about research procedures and asked their parent/guardian to sign a consent letter. The parents of all the research participants were requested to read and understand the consent letter before signing it, because the participants were below legal age limit. It was mainly done to evade complications during field trip and violation of the rights of every participant. The consent letters were collected and kept by the researcher throughout the study. The details of the participants and study records were also maintained confidential and anonymous. The researcher used a coding system instead of their names as an alternative measure in ensuring confidentiality. (Example: Student 1, Student 2, and Student 3)

Data Analysis: A pretest was conducted before the actual intervention and posttest after the teaching incorporating field trip with multimedia. The scores of the participants from the pretest and posttest were analyzed by the researcher using a paired sample t-test

based on mean ($\bar{x}$), standard deviation (SD), and significance (p) value. Similarly, the learning satisfaction of the participants were also analyzed using thematic analysis for reliable and effective findings.

Research Results

The study was conducted with Grade Four students in Social Studies on the topic 'Local Government' using integration of field trip with multimedia technology. The lesson was taught for a period of a month of two sessions per week. All the lessons consisted of field visits to local government offices, exploring the campus, conversations with the local leaders and the group activities. The quantitative and qualitative data was obtained through learning achievement tests and semi-structured interviews. The pretest and the posttest comprised of 20 marks and were conducted with 30 students before and after the intervention. The data analysis and comparison of the learning achievement tests (pretest and posttest) were done using paired sample t-test based on mean, standard deviation and significance (p) value. The semi-structured interviews were conducted with the participants at the end of the intervention to examine and determine learning satisfaction after using a field trip with multimedia technology (videos and PPT) in Social Studies lessons. The research results were collected and analyzed based on the following classifications: (1) data analysis of the learning achievement tests of the research participants before and after the intervention of a field trip with multimedia technology (videos and PPT) in Social Studies; and (2) thematic analysis of semi-structured interviews after the study to examine the learning satisfaction of research participants on the integration of a field trip with multimedia technology (videos and PPT) in Social Studies. Figure 1 represents individual student learning achievement scores by 30 research participants in the pretest and the posttest. The blue bar represents the marks obtained by individual students from the pretest and an orange bar for the posttest, respectively.

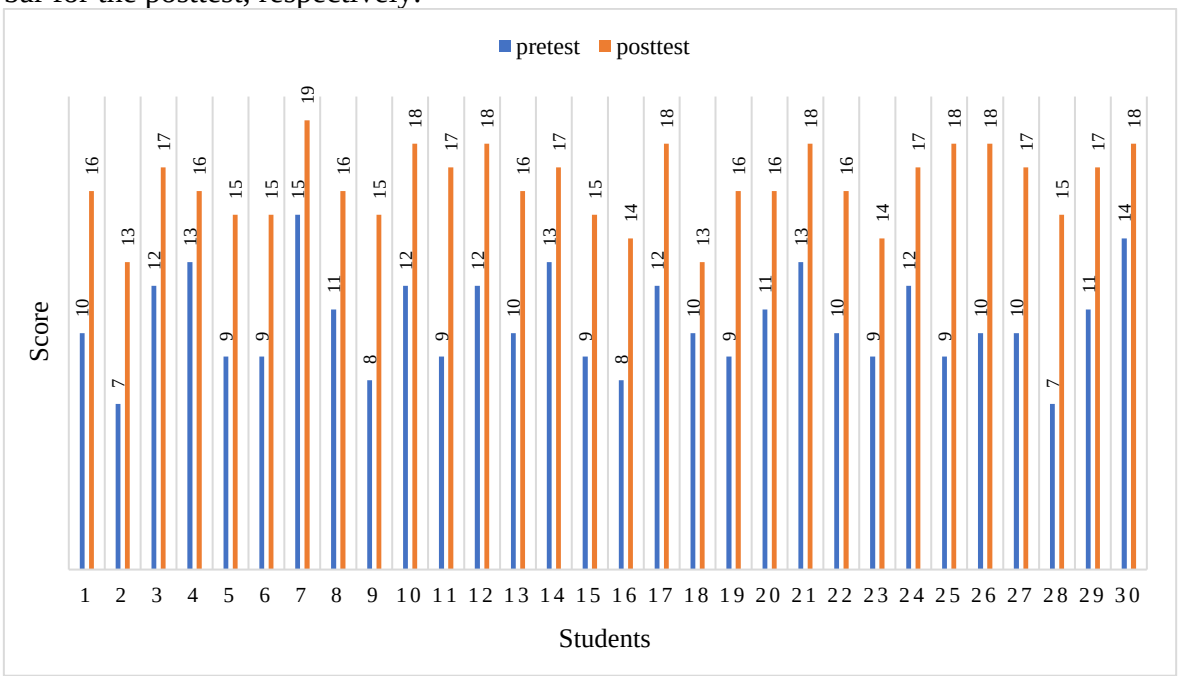

Figure 1. Comparative graphical illustration of individual students' learning achievement marks in pretest and posttest

All the posttest marks scored by the research participants were significantly higher than the pretest marks, showing remarkable improvement in the learning achievement of students. The results also presented it that the participants scored low marks in the pretest because of the conventional teaching methods used by researchers before actual intervention. According to the data revealed from the learning achievement tests, 7 and 15 was the lowest and the highest pretest marks, whereas 13 and 19 were the lowest and highest posttest marks, respectively. As per the data analysis of the learning achievement tests, the posttest scores revealed that the integration of a field trip with multimedia technology (videos and PPT) had a great impact in teaching and learning Social Studies.

Although there was a diverse degree of improvement between the students, however, the intervention had a positive overall impact on all students. The integration of the field trip with multimedia technology clearly had a significant impact on learning, as seen from the improvement scores. As shown below in Table 1, the learning achievement data were further analyzed using paired sample t-test.

Table 1. Paired t-test analysis of pretest and posttest

Group	Pretest		Posttest		Mean Difference	t	p-value
Sample	M	SD	M	SD			
Group	10.47	2.01	16.27	1.57	5.80	22.31	.01

As shown above, the mean score obtained by the research participants for the pretest was 10.47, with a standard deviation of 2.01, and the mean score for posttest was 16.27 with the standard deviation of 1.57, respectively. A paired sample t-test also proved that the posttest mean score was comparatively higher than the pretest mean score with a mean difference of 5.80. Upon thorough analysis of the test scores, it was found that the significant p-value was .01 which indicated the significance of the tests. As a result, the integration of field trip with multimedia technology (videos and PPT) was efficient and successful as evidenced by higher mean scores in the posttest than the pretest.

Data Analysis of Semi-Structured Interview: The researcher used semi-structured interviews to collect qualitative data from the participants at the end of the four weeks of intervention. To investigate in-depth quality and opinions of the students and achieve the second objective of the research, five open-ended interview questions were used. The interview questions were validated by three experts were as follows: (1) Did you enjoy the lessons using a field trip with videos and PPT? Why?; (2) Do you agree that the use of field trip incorporating multimedia is enriching? In what ways?; (3) Which activities did you like the most? Why?; (4) Are you satisfied with learning Social Studies using a field trip with videos and PPT? Why or why not?; and (5) Would you like to continue using field trip with videos and PPT in other topics in Social Studies? Why? The responses from the research participants were audio-recorded and later translated and transcribed, the data were further analyzed using thematic analysis under five themes: (1) learning enjoyment; (2) experiential learning; (3) learning motivation; (4) positive relationships; and (5) transformation in learning. As per the responses and the data collected, the learning satisfaction of students after the integration of a field trip with multimedia technology (videos and PPT) in the lessons were highly encouraging and pleasing.

Learning Enjoyment: Students enjoyed the lessons the most when integration of the field trip with multimedia technology was used to teach Social Studies. The lesson activities were totally different in terms of learning and exploring beyond the classroom setting. It also encouraged students to connect their learnings in real field situations. Moreover, the use of

smart phones to record video clips and images during field trips created lessons more interesting and everyone was excited and enjoyed the class. Thus, it clearly indicated that the use of field trip with multimedia technology in learning Social Studies has curiosity and positive learning satisfaction, as shared by the students:

> *"I enjoyed the lessons because I got the opportunity to meet Gup, Mangmi and Gewog Administrative Officer and ask them questions"* (Student 7)

> *"I enjoyed the class when we went for a field trip. I learnt a lot about gewog offices and local government"* (Student 3)

Experiential Learning: Students were overwhelmed and had experiential learning knowledge through a field trip. All students were involved individually or collaboratively in learning that provided them hands-on experiences. Students visited the local government offices and learnt beyond what has been actually prescribed in the Social Studies text book. Learning Social Studies using a field trip with multimedia technology was experiential learning for the students.

> *"I agree that learning through a field trip is enriching. We can learn and get more information than from our text book"* (Student 11)

> *"After the field trip the recorded videos and images helped me in learning better about the roles and responsibilities of the local government"* (Student 10)

Motivation for Learning: Almost all of the students responded that they were extremely motivated to learn effectively through the integration of a field trip with multimedia technology in Social Studies. Furthermore, the students shared that they were more comfortable and confident to work with peers, especially on a field trip.

> *"I like the field trip part mostly because we can see and feel things in reality. It helped me to learn the topic better."* (Student 20)

> *"Through the field trip visit I learned more about the role and responsibilities of Gup, Mangmi and Tshogpa. I also saw their offices. Such a field trip motivated us to learn better"* (Student 18)

Positive Relationships: The field trip provided them with ample opportunities to build strong community vitality and a team. Through a field trip, students had an opportunity to interact with the people and helped to foster excellent student-teacher relationships. Students not only received answers through interaction, but also built and strengthened good relationships and a sense of community. Students even mentioned that a field trip with the use of multimedia has built friendships.

> *"Through the field trip I could interact with people more than learning from the class. And also learnt more information about the topic"* (Student 21)

> *"I got an opportunity to visit gewog office, interact with local leaders and people. Moreover, my teacher and friends helped me in my learning"* (Student 4)

Transformation in Learning: A field trip was an effective tool which could enhance student learning and building relationships. Most students responded on the use of multimedia technology (videos and images) using smart phones in Social Studies was new for them during the field trip.

> *"I think the use of phone to record videos during field trip is helpful. In most of the field trip activities, it was recorded in note book and paper. So, it was a kind of dull lesson for us"* (Student 19)

> "*The short video clips and images from the field trip help us in revisiting the lesson taught. Lessons without recording can be easily forgotten"* (Student11)

Therefore, the results from learning achievement test and semi-structured interview revealed and justified the integration of a field trip with multimedia technology positively impacted the overall learning outcomes of the students.

Discussion

The study concluded with the strong findings based on the two major research objectives: to compare the learning achievement of Grade Four Bhutanese students and to investigate the learning satisfaction of students in Social Studies after using a field trip with multimedia technology. According to the findings, it was evident that teaching Grade Four students in Social Studies using the integration of a field trip with multimedia technology (videos and PPT) was effective and had a positive impact in learning, as follows:

The study on the integration of field trip with multimedia technology (videos and PPT) was intensely proven effective and reliable after data collection through the learning achievement test. The pretest and posttest were done before and after the intervention and it was apparent that students improved their learning achievement. The posttest mean score (16.27) revealed an extensively higher score than the pretest mean score (10.47) with a mean difference of (5.80). The significance (p) value from the learning achievement test was .01 which clearly indicated that the integration of a field trip with multimedia technology improved and the learning outcomes of the students. The extensive improvement in the posttest score after the intervention was mainly in line with the cognitive theory of multimedia learning by Mayer, Dow & Mayer (2003). Multimedia technology used in teaching had a significant impact on the learning and retention of the students. The students comprehended and retained information more effectively when corresponding words and images that are presented simultaneously rather than sequentially. Moreover, incorporating multimedia devices in lessons facilitated by interactive sessions between the teacher and the students. Thus, the use of multimedia technology in lessons enhanced learning by creating more relatable and engaging experience. The above finding was in line with Amosa, Ogunlade & Atobatele (2015) who conducted the study to investigate the learning

achievement of the participants using a field trip with multimedia technology. The findings of the study revealed that students using a field trip with multimedia technology performed significantly better in terms of learning achievement than students who were taught with the expository method. The findings also proved that students acquired practical skills, enhanced retention knowledge and made abstract ideas concrete through the use of a field trip with multimedia. Similarly, the findings conducted by Lo & Quintana (2013) also proved that incorporating a field trip with multimedia technology (mobile phone) motivated curiosity to learn and had a great impact on academic learning achievement. Their findings evidenced that students had successfully acquired the knowledge, skills, and competencies in a particular learning context.

Semi-structured interviews were used to investigate the extent of student learning satisfaction after using a field trip with multimedia technology in Social Studies. The data were collected with face-to-face interviews with students in the language that they were the most comfortable with. The findings were then transcribed and analyzed further using thematic analysis. All most all the students appreciated and expressed their positive learning satisfaction towards incorporating a field trip with multimedia technology (videos and PPT) in the lessons. According to the interview findings, students found the lessons very interesting, engaging and interactive. Students even expressed that it was an experiential learning, they had the opportunity to explore a real situation and could interact with the people around. The integration of field trip with multimedia technology using smart phones encouraged them to explore, experience and learn hands-on and beyond the syllabus. It was found that the lessons were perceived as enriching, it motivated them for learning and had built up their positive relationship among other. It was parallel with the study done by Charistonos. Blake, Scanlon& Jones (2012) and Scott & Matthews (2011) where the findings showed that integration of field trip with multimedia technology enhanced the learning satisfaction of students and built up a strong positive relationship between the school and the communities. A similar study by Dohn (2010) conducted research with 16 participants at the aquarium and fishing harbor in an integrating a field trip with multimedia technology using smart phones kept the participants engaged without boredom and enhanced enthusiasm for learning. Students explored and learnt hands-on about the aquarium. The findings of the study by Demirel & Ozcan (2022) also pointed out that field trip with use of multimedia device (smart phone) created more fun learning, increased student motivation and encouraged interactive lessons. According to the findings from the research participants and the previous researchers, the study came to the conclusion that integration of field trip with multimedia technology is the most effective method for teaching Social Studies of Grade Four Bhutanese students.

The aim of the study was to evaluate the effectiveness of field trip with multimedia technology in the learning of Social Studies by Grade Four Bhutanese students. The findings revealed that using a field trip with multimedia (videos and PPT) enhanced the learning achievement and student satisfaction level. In line with the findings, the researcher recommended that a comparable study be done with a similar purpose, because no empirical studies have been carried out in Bhutan, particularly on the topic of integrating a field trip with multimedia technology. The study was carried out with 30 participants in primary schools in the Chhukha district of Bhutan. Thus, a similar study may be recommended but with different grade levels, subjects, and a larger sample size. The time period of this research was limited to only four weeks. In order to acquire more reliable and significant findings, a longer time period was required. The study focused on the integration of a field trip with multimedia technology (videos and PPT) and using smart phones. However, future

researcher could explore different multimedia devices to record video clips and images for convenient, rich and fun learning, whether or not a study was done within the school campus or beyond. Lastly, this study also suggested that a field trip should be organized well by the teacher/organizer in order to evade complications. Seeking of an approval from the concern stakeholders to an arrangement of necessity things should be in place before the actual commencing the trip. Moreover, this study equally recommends teachers to use recorded video clips, voice recordings and images for lesson recapitulation and self-learning.

Conclusion

In conclusion, contemporary education is an innovative and dynamic approach to teaching and learning that meets the demands of our rapidly advancing world. It goes beyond traditional methods which emphasizes skills, competencies, and knowledge that are relevant in today's technology-driven era that could enhance three domains; cognitive, effective and psychomotor in the learners (Gyeltshen & English, 2021). According to the findings and data, using a field trip with multimedia technology is useful and highly effective teaching tool especially for Social Studies subject. It was observed that students enjoyed the lesson when they were engaged through the use of a field trip integrated with multimedia technology. The strategy provided students the opportunity to explore and gain practical experiences. Moreover, students had an ample of time to interact with the teacher, local leaders and among themselves and could build up positive relationship. Thus, the researcher hereby concluded that the evidence from this research study supports the use of a field trip with multimedia technology (videos and PPT) strategy as an important tool that can help students enhance academic learning. Therefore, the researcher hereby recommends that teachers and researchers should conduct and examine the efficacy of the approach across a range of subjects and grade levels over a longer duration to gather pertinent data with variety of multimedia devices.

Acknowledgement

I thankfully acknowledge and offer my sincere gratitude to His Majesty the King Jigme Khesar Namgyel Wangchuk and President Dr. Attawit Ourairat, Rangsit University, Thailand for the prestigious Trongsa Penlop Scholarship (TPS) in the 2022 academic year. And also, to Royal Civil Service Commission (RCSC) and Ministry of Education and Skills Development (MoESD) of Bhutan for an approval of my candidature to study in the university. Subsequently, my sincere appreciation and gratitude to my thesis advisor Assistant Professor Dr. Nipaporn Sakulwongs for her significant support and guidance in all the time of writing this research. Last but not the least, to the thesis chairperson and the committee members, instrument validators, research participants, research school, Bjapcho gewog administration, Chhukha and my family for their unwavering support and guidance.

References

Addo, C. A. (2020). *Utilization of field trips in the teaching of social studies in colleges of education in the Volta Region, Ghana* (Master's thesis, University of Cape Coast). Retrieved from https://ir.ucc.edu.gh/xmlui/bitstream/handle/123456789/6787/ADDO%2C%202020.pdf?sequence=1&isAllowed=y

Amosa, A. G. A., Ogunlade, O. O., & Atobatele, A. S. (2015). Effect of field trip on students' academic performance in basic technology in Ilorin metropolis, Nigeria. *Malaysian Online Journal of Educational Technology, 3*(2). Retrieved from https://files.eric.ed.gov /fulltext/EJ1085933.pdf

Ayaaba, D. A., & Odumah, L.K. (2017). *Skills and techniques of teaching social studies.* Yaci Publication.

Behrendt, M., & Franklin, T. (2014). A review of research on school field trips and their value in education. *International Journal of Environmental and Science Education, 9*(3), p. 235-245. doi:10.12973/ijese.2014.213a

Bhadauria, R. (2019). *Benefits of multimedia learning.* Retrieved from https://www.linkedin.com /pulse/benefits-multimedia-learning-ravi-bhadauria

Charistonos, K., Blake, C., Scanlon, E., & Jones, A. (2012). *Trajectories of learning across museums and classrooms: The transformative museum*. Retrieved from https://oro.open.ac.uk /33400/1/DREAMpaper_charitonos_final.pdf

Davis, A. (2016). *Preparation for a global economy: 21st century career-readiness and academic-citizenship skills for African-American workforce entrants* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (ProQuest No. 10160166).

DeJonckheere, M., & Vaughn, L. M. (2019). Semi structured interviewing in primary care research: a balance of relationship and rigour. *Family Medicine and Community Health, 7*(2). doi:10.1136/fmch-2018-000057

Dema, K. (2018). *The use of field trip on eighth grade Bhutanese students' learning experience: A qualitative study*. Rangsit University, Thailand.

Demirel, R., & Ozcan, H. (2022). Exploring 7th grade students' lived experiences about domestic waste and recycling after attending a science trip. *Kastamonu Education Journal, 30*(2), p. 297-311. doi:10.24106/kefdergi.768983

Dohn, B. N. (2010). Situational interest of high school students who visit an aquarium. *Science Education, 95*(2), p. 337-357. doi:10.1002/sce.20425

Dolma, P., Nutchey. D., Watters, J. J., & Chandra, V. (2018). Investigating the alignment of Bhutanese mathematics teachers' planned approaches within the context of a reformed curriculum. *International Journal of Science and Mathematics Education, 16*(3), p. 581-602. doi:10.1007/s10763-016-9791-1

Dorji, T. (2021). *The application of think-pair- share for social studies of grade six Bhutanese students*. Rangsit University, Thailand.

Flateby, T. L. (2017). *A guide for writing and improving achievement tests.* Retrieved from https://www.usf.edu/resource-guide-for-writing-and-improving achievements.pdf

Gyeltshen, L., & English, R. (2021). Enhancing 6th grade students' learning in social studies through technology-based teaching approach. *Shanlax International Journal of Education, 10*(1), p. 106-130. doi:10.34293/ education. v10i1.4435

Kapur, R. (2020). Lecture method: The comprehensively used pedagogical method. Retrieved from https://www.researchgate.net/publication/345893936_Lecture_Method_The_Comprehensively_used_Pedagogical_Method/link/5fb0cf34299bf10c3680831c/Download

Lamsang, T. (2020). His Majesty envisions a developed Bhutan in our life time and presents a reality check for the civil service and the education system. *The Bhutanese Online News*. Retrieved from https://thebhutanese.bt/his-majesty-envisions-a-developed-bhutan-in-our-lifetime-and-presents-a-reality-check-for-the-civil-service-and-the-education-system/

Lo, W., & Quintana. C. (2013). Students' use of mobile technology to collect data in guided inquiry on field trips. In *Proceedings of the 12th International Conference on Interaction Design and Children* (p. 297-300). doi:10.1145/2485760.2485837

Mantiri, F. (2014). Multimedia and technology in learning. *Universal Journal of Educational Research, 2*(9), p. 589-592. doi:10.13189/ujer.2014.020901

Mayer, R. E., Dow, G. T., & Mayer, S. (2003). Multimedia learning in an interactive self-explaining environment: What works in the design of agent-based microworlds? *Journal of Educational Psychology, 95*(4), p. 806-812. doi:10.1037/0022-0663.95.4.806

Nadelson, L. S., & Jordan, J. R. (2012). Student attitudes toward and recall of outside day: An environmental science field trip. *Journal of Educational Research, 105*(3), p. 220-231. doi:10.1080/00220671.2011.576715

Osakwe, E. (2010). *Social studies and integrated national development in Nigeria*. Retrieved from https://searchworks.stanford.edu/view/926451720research &f=false

Pavithra, A., Aathilingam, M., & Prakash, M. S. (2018). Multimedia and its applications. *International Journal for Research & Development in Technology, 10*(5), p. 271-276. Retrieved from https://www.researchgate.net/publication/329417059_MULTIMEDIA_AND_ITS_APPLICATIONS

Rigzin. (2021). *The application of multimedia technology in teaching and learning mathematics of grade 5 Bhutanese students*. Rangsit University, Thailand.

Royal Education Council. (2021). *Social studies class IV*. Royal Education Council of Bhutan.

Scott, C. M., & Matthews, C. E. (2011). The science behind a successful field trip to the zoo. *Projects and Curriculum Ideas in STEM Classrooms, 48*(1), p.29-38. doi: 10.1080/00368121.2010.496814

Seldon, P., & Sakulwongs, N. (2023). The integration of web-applications and collaborative learning in mathematics for grade five Bhutanese students. *Journal of Research and Curriculum Development, 13*(1), p.1-13. Retrieved from https://so03.tci-thaijo.org/index.php/jrcd/article/view/263652

Shorten, A., & Smith, J. (2017). Mixed methods research: expanding the evidence base. *Evidence-Based Nursing, 20*(3), p.74-75. doi:10.1136/eb-2017-102699

Taherdoost, H. (2016). Validity and reliability of the research instrument: How to test the validation of a questionnaire/survey in research. *International Journal of Academic Research in Management, 5*(3), p.28-36. doi:10.2139/ssrn.3205040