

THE USE OF GRAPHIC ORGANIZERS IN TEACHING HISTORY TO GRADE SEVEN STUDENTS IN BHUTAN



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Thesis entitled

THE USE OF GRAPHIC ORGANIZERS IN TEACHING HISTORY TO GRADE SEVEN STUDENTS IN BHUTAN

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was submitted in partial fulfillment of the requirements for the degree of Master of Education in Curriculum and Instruction

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Abstract

This mixed methods study was conducted to compare the learning achievement of Grade Seven students before and after the use of graphic organizers and to find students' opinion towards using graphic organizers in learning History. The study was conducted in one of the schools in Bhutan with 18 students over the period of four weeks. The quantitative data was collected through learning achievement tests (pretest and posttest) and survey questionnaires. The qualitative data was collected from semi-structured interview.

The analysis of the pretest and posttest scores through Wilcoxon signed rank test showed 100% students had improved their scores in posttest as compared to pretest. The mean (\bar{x}) difference of 6.81 between posttest $(\bar{x}\ 14.64)$ and pretest $(\bar{x}\ 7.83)$ indicated that the use of graphic organizers improved the learning achievement of students. Likewise, the data collected from survey questionnaire and interview showed that the students had positive opinions in using graphic organizers to learn History. The mean (\bar{x}) rating of the opinion questionnaire was 4.46 out of 5, which rated 'Agree' on the Likert scale. The findings from interviews and survey questionnaire revealed that students were motivated and satisfied to use graphic organizers to learn History. It had also developed their interest in the subject. Therefore, this study recommends using graphic organizers as one of the learning strategies to improve the academic performance and interest in learning History.

(Total 118 pages)

Keywords: Graphic Organizers, History, Grade Seven Students, Bhutan

Student's Signature......Thesis Advisor's Signature.....

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ABBREVIATIONS

Abbreviations Meaning

REC Royal Education Council

NAPE New Approach to Primary Education

MoE Ministry of Education

BCSE Bhutan Certificate for Secondary Examination

RUB Royal University of Bhutan

CAPSD Curriculum and Assessment Professional Support Division

SD Standard Deviation



CHAPTER 1

INTRODUCTION

This chapter includes the background of the study, objectives of the study, research questions, scope and limitations and expected outcomes followed by definition of the terms.

1.1 BACKGROUND AND RATIONALE

The word 'History' is derived from the Greek word *Historia*, meaning finding the truth or collecting information (Royal Education Council of Bhutan, 2018a). It was invented in 5th Century BC in Greek. History was written in ancient time to keep the memories and to record men' experience of some specific events of the past, which other-wise would be lost. It further developed human intellectual and improved moral values. History was not a serious subject in school until 18th century (Momigliano, 1983). Today History is an important part of education system in every country.

In schools of Bhutan, History is one of the compulsory subjects for students from Grade Seven till Grade Ten. After Grade Ten, students have the option based on their interest. Therefore, the introduction of History in Grade Seven is the laying foundation of the subject. History curriculum comprises three textbooks: Bhutan History, Bhutan Civics and World/Indian History. The Bhutan History textbook was first introduced in 1990 for Grade Six and above. Through these changes children were expected to acquire knowledge, develop skills, values and attitudes (Gyamtsho & Dukpa, 1998).

History is an important subject that imparts invaluable lessons from the past and whose worth transcends regional, national and cultural boundaries. It is an inquiry of what happened, when it happened and how it happened (Boadu, 2016). History plays a critical role in developing learners' identity through the understanding of the subject

from personal, national and international perspectives. It assists learners in understanding the development of social, political, cultural and economic conditions of the people, places and events from the past. It inculcates a sense of belongingness that leads to unity, solidarity, and protections of oneself and others (Royal Education Council, 2018a). History is an essential subject in schools where learning happens beyond the classroom. For instance it prepares student for life and future, where they need to make right decisions and good choices every day (Estepa, 2016).

Despite its significance, teaching and learning History has been a challenging task for the students. Students consider History as boring subject and do not do well due to traditional method of teaching (Gyeltshen, 2018; Lhatu, 2017). Though the shift from the teacher centered to learner-centered began with the introduction of New Approach to Primary Education (NAPE) in mid 1980s, yet traditional teaching is still prevalent in most schools. The traditional approach demands the students to memorize the entire texts which limits their understanding and thinking skills (Peldon, 2018). Memorizing vast information and the lack of skills to comprehend the text makes History a boring and challenging subject for the students (Joseph, 2012).

According to the study conducted by Nair and Narayanasamy (2017), students found History challenging because of difficulty in visualizing and organizing the information. In addition, History contain complex past information which made it harder for children to understand due to their underdeveloped intellectual and cultural literacy. As per the study carried out by Joseph (2012), most secondary students had difficulty in understanding the key concepts. Student found History challenging and did not perform well due to weak foundation of the subject in the primary or early secondary school years. Goddey (n.d.) states that any forms of teaching History that do not engage students' participation and interest reduces History to lifeless information.

Therefore, it is important that foundation of the subject at the early years of learning is built strong by using a strategy that would enhance students' learning and interest. One of the strategies to enhance students' enthusiasm and participation in learning History could be the use of graphic organizers in the classrooms.

Graphic organizers are gaining popularity in modern school as a favorite teaching approach in the classroom due to its effective application in teaching across all level and subjects (Elwood, 2018; Uba, Oteikwu, Onwuka & Abiodun-Eniayekan, 2017). Graphic organizers are instructional tools that support students to simplify and understand the complex information. It could be used in all phases of learning from brainstorming, to present findings in the classroom individually or in groups (Zaini, Mokhtar & Nawawi, 2010).

The use of graphic organizers improve students' learning and interest are supported by number of research studies. According to Gallavan and Kottler (2007), graphic organizers help students to connect and manage information easily before, during and after reading or discussion. It improves recall and enhances learners' involvement to summarize and synthesize complex ideas (Torres, Espana & Orelans, 2014). The construction of graphic organizers allow interaction amongst students and teachers (Hanley, 2018). According to Yunianti (2014), the use of graphic organizers improved students' performance and motivations to learn. When the graphic organizers are integrated in the classroom, the lesson became more focused. The students could highlight the important information from the text. Further, designing or constructing graphic organizers among students made the learning more interesting and motivating.

Torres et al. (2014) report that graphic organizers are visual tools that represent the facts and concepts in an organized frame, making the information easier to understand and learn. It is an approach which focuses on learners rather than the teachers.

So, based on the findings mentioned above, the researcher was interested to find out the effect of graphic organizers on learning achievement in History and to find out the opinions of grade seven Bhutanese on the use of graphic organizers. History text contains vast complex information impedes students' understanding. By using graphic organizers, the students are taught to organize those information in graphic forms to which are much easier to understand.

Although many studies were carried out on the use of graphic organizers in other subjects, but there was no research carried out in Bhutan History. Thus, the findings of this study would provide teachers with an alternative strategy to enhance students learning and interest in the subject.

For this study the researcher used five different graphic organizers: 1) concept mapping, 2) Venn diagram, 3) Cause & effect chart, 4) Timeline and, 5) KWL chart. Santiagos and Solis (2016) mentioned that as compared to one tool, teaching more than one graphic organizers would maximize its usage and improve the students' learning.

1.2 RESEARCH OBJECTIVES

The objectives of this study are as follows:

- 1.2.1 To compare the learning achievement of Grade Seven students in History before and after the use of graphic organizers.
- 1.2.2 To find out the opinion of the Grade Seven students towards using graphic organizers in learning history.

1.3 RESEARCH QUESTIONS

- 1.3.1 Would there be any improvement in Grade Seven students' learning achievement in History after using graphic organizers?
- 1.3.2 What are the opinion of Grade Seven students towards using graphic organizers in learning History?

1.4 RESEARCH HYPOTHESIS

- 1.4.1 The learning achievement of Grade Seven students would improve after the use of graphic organizers in History.
- 1.4.2 The Grade Seven students would have positive opinions towards the use of graphic organizers in learning History.

1.5 SCOPE OF STUDY

1.5.1 Location of the Study

The study was conducted in one of the middle secondary schools in Sarpang district, Bhutan. It is a semi-remote school with enrollment of 320 students. The school was upgraded from Lower Secondary School to Middle secondary School from February 2019.

1.5.2 Population and Sample

The population of the study consisted of 40 students from two sections of Grade Seven in the school. A sample of one section was selected using intact random sampling method. In the beginning of the study, the sample group had 20 students. However, after a week two students got transferred to another school. Thus, the sample group finally consisted 18 students, 11 boys and 7 girls within the age range of 12-17 years.

1.5.3 Content of the study

The researcher taught "Chapter 4, Dzongs-Centre of Administration and Religion' to the Grade Seven students. The topic was selected according to the yearly plan prepared by the subject teacher of the research school. The topic was further divided into sub-topics as shown in Table 1.1. The lessons were taught using graphic organizers.

Table 1.1 Content of the Study

Time	Topics	Periods
Week 1	Familiarization of Graphic Organizers & Background of	2
	Dzong	
Week 2	Life in Dzongs	2
Week 3	Some Important Dzongs	2
Week 4	Cause and Effects of Dzongs	2

1.5.4 Time Frame

This study was carried out for a period of four weeks from 1st August to 30th August, 2019 in the second semester of the academic year. Four lesson plans of 90 minutes each were made and taught during the time frame.

1.5.5 Conceptual Framework

This study consists of two variables - independent and dependent variables. The independent variable was graphic organizers which were an instructional approach. The student learning achievement and students' opinion were the dependent variables as shown in Figure 1.1

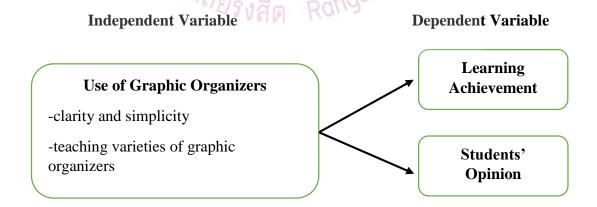


Figure 1.1 Independent and Dependent Variables

1.6 LIMITATIONS OF THE STUDY

This study had the following limitations:

- 1.6.1 The study was limited to only one section of Grade Seven students studying in one of the schools in Bhutan. Therefore, the findings could not be generalized to all Grade Seven students of Bhutan.
- 1.6.2 The content of the study included only one chapter from Bhutan History textbook of Grade Seven. Therefore, the findings could not be generalized to the content of other topics or subjects.
- 1.6.3 Only five different types of graphic organizers were used by the researcher, so the findings would not be generalized for other types of graphic organizers.
- 1.6.4 The student had only 8 periods to learn the use of graphic organizers, which was not enough for student to practice. More time could have been provided for students to practice the use of graphic organizers.

1.7 OPERATIONAL DEFINITIONS

Learning achievement: refers to the increase of scores in the posttest as compared to pretest of Grade Seven students after the intervention of graphic organizers in History.

Graphic organizers: refers to the visual representations of text information in graphic representation. In this study graphic organizers include concept mapping, venn diagram, timeline, KWL chart and cause and effect diagram.

Bhutan History: It is one of the compulsory subjects which needs to be studied in Grade Seven. The researcher taught the topic 'Dzong' from 'Chapter 4' of Bhutan History using graphic organizers.

Student Opinion: refers to the positive level of contentment of the students in teaching and learning History after using graphic organizers. The result of the students' interview and questionnaires measure the students' opinion towards use of graphic organizers in learning History.

Grade Seven Students in Bhutan: refers to Grade Seven students of the research school in Bhutan. Total of 18 students participated in the study. They were taught one of the chapters from Bhutan History curriculum using graphic organizers over the period of four weeks.

1.8 SIGNIFICANT OF THE STUDY

- 1.8.1 The use of graphic organizers would exhibit better learning achievements of students in Bhutan History in Grade Seven.
- 1.8.2 The study would show positive responses of students in learning History by using graphic organizers.
- 1.8.3 The findings of this study could provide History teachers an alternate to use graphic organizers as one of the inventive strategies to teach History.

CHAPTER 2

LITERATURE REVIEW

This chapter presents the review of Teaching and Learning History, the Education System of Bhutan, History Curriculum and aims and objectives of Grade Seven History Curriculum. The chapter also discusses the definition, types and advantages of graphic organizers. Further, it presents the learning theories and literature related to teaching and learning of History in schools.

2.1 TEACHING AND LEARNING HISTORY

History is the study of the past. Llewellyn and Thompson (2018) define History as a rolling narrative story filled with events of turmoil and triumph. Each passing generation adds a new chapter to History in the process of analyzing and finding new things in those written chapters. The study of History explains how the past actions of mankind affect the present and the future.

History is a Greek word *Historia*, which means information or finding the truth. It was invented in 5th Century BC but was not regarded as a specific subject for instructions in school. History was written in ancient time to keep alive the memory of some specific past events which otherwise would be forgotten forever. It was first introduced into university curricula in 16th Century and was not a serious subject in school until 18th Century (Momigliano, 1983).

The study of History plays an important role in student's lives. Through History, students learn historical knowledge and develop interpreting, analyzing and presenting skills. These help them to understand their past, connect the past to the present, and prepare and plan for the future developments. Learning of History help students to become patriotic citizens; respecting their past and promoting their culture and histories.

Further, the reading of historical books aid students to build a basic understanding of good and bad, identify major characters and develop pattern recognition, which are all useful skills in learning of other subjects (Helyer, 2016).

In recent times, teaching History has progressed with new ideas and techniques. However, History teachers still use traditional method of teaching, giving very little chance to students to take part in the teaching-learning process (Goddey, n.d.). Traditional method of teaching does not promote critical thinking and is limited to recall of names, dates and places (Estepa, 2016). Such method does not involve the students in the learning process, instead students end up listening passively, trying hard to remember the information which they find meaningless and are soon forgotten (Peldon, 2018). Hence, students find the lessons dull and uninteresting. They are not able to develop critical thinking and deeper understanding of History. Moreover, the frequent use of lecture method and the memorization of vast information, have made it difficult for children to score good grades in the exam (Gyeltshen, 2018; Lhatu, 2017).

According to Joseph (2012), if the History concepts are not introduced or taught properly in primary or early secondary schools, the learning of History can be challenging in secondary school. Therefore, for students to perform well in secondary schools, history teachers should help students in mastering the concepts like identifying historical significance, cause and effect, comparison and change and continuity at an early level of subject learning. Such learning experiences not only help students to understand history, but also appreciate the values and significance of history.

Bunda (2017) explains that History is filled with interesting and important discoveries about the world and the human races, so the students deserve to learn such valuable information in the most interesting and motivating way. If History was taught using inventive strategies, more students may have liked the subject. Thus, changing this impression about History is in the teachers' way of presenting information. The use of graphic organizers enable students to organize the information and enhance their critical thinking and interest in learning are supported by many researches and studies which are discussed further in this chapter.

2.2 BACKGROUND ON EDUCATION SYSTEM OF BHUTAN

The education system in Bhutan consists of two main elements; monastic education and general education (modern education). The modern education is by far the biggest educational structure, but the monastic education is the oldest form of education (Ministry of Education, 2019). Monasteries were the only center of learning during the theocratic rule of Bhutan which extended from 1616-1907 (Dukpa, 2016). Gonsar Ugyen Wangchuck (1907-1926), the first King of Bhutan unfurled the modern education system by establishing the first modern schools in Haa and Bumthang in early 1900s. Subjects like English, Hindi, Dzongkha and Arithmetic were taught (Gyeltshen, 2018; Wangmo, 2018).

With the commencement of First Five Year Plan in 1961, the modern education has developed and expanded to address the basic educational needs in the country. The education had also played a major role in developing political, cultural, environmental and socio-economic of the country (Ministry of Education, 2019). As of 2018, Bhutan has the total of 512 schools (primary-high school) including 63 central schools and 36 private schools. The current enrolment from PP-XII is 167,108 with the total of 7,574 teachers (Ministry of Education, 2018).

The school based education structure in Bhutan consists of 11 years of free basic education from classes PP to X. When students reach class X, there is a national board examination known as Bhutan Certificate for Secondary Examination (BCSE). Based on their performance in BCSE exam, students either continue their education in Higher Secondary schools in public or private secondary schools, or enroll in technical training institutes. After completing class XII, students again get the opportunity to continue free studies at the tertiary level (diploma or bachelor's degree) under the Royal University of Bhutan (RUB) or enter the job market (Ministry of Education, 2018).

2.2.1 General Education Curriculum

The Bhutanese education curriculum comprise of three main subjects Dzongkha, English and Math, which are taught compulsorily from classes PP to XII. Science is taught from classes IV to VIII, and Social studies from classes IV to VI. However, from upcoming classes, Science splits into Physics, Chemistry and Biology. Social Studies gets divided into History and Geography. Students in the higher secondary education (XI and XII) can choose to study Arts, Commerce, Science and Rigzhung as shown in Figure 2.1.

	SCIENCE	COMMERCE	HUMANITIES	TECHNICAL & VOCATIONAL EDUCATION	RIGZHUNG
GRADE XI - XII	Compulsory Dzongkha, English	Compulsory Dzongkha, English	Compulsory Dzongkha, English	Compulsory Dzongkha, English	Compulsory Dzongkha, English, Chenju Sumtag, K-jur, Nyengag
AGE 17 - 18	Core Physics, Chemistry	Core Commerce, Accountancy Business Mathematics	Electives (3 - 4) Geography, Business Mathematics, ICT	Electives 3 subjects from a pool of vocational subjects	Electives (1) Gyalrab, Tshi
	Elective (1) Biology, Mathematics, ICT Economics, TVE Subjects Entrepreneurship Education	Optional ICT, Economics, Rigzhung Vocational Subjects Entrepreneurshi p Education	History, Rigzhung Vocational subjects Entrepreneursh ip Education	Optional (1) ICT, Functional Mathematics Economics, Entrepreneurship Education	Optional (1) Nencha (Music) TVE subjects
	Compulsory bu Moral/Values/Buddh		luated: HPE,	Compulsory but not of Moral/Values/Buddh	
GRADES IX - X Age 15 - 16	Main Stream Core Subject Dzongkha, English, M and Givics, Geograph Elective Subject Moral/Values/Buddh Media Studies, TVET	y ist education, ICT Lit	teracy, Music Educa	tion, Visual Arts,	Rigzhung Core Subject Dzongkha, English, Khordey Lam Sum, NgagdroenNyer- Khoi-Nam Shed, Ka-Ned Selwai Melong Elective Subject Vocational Subjects, Music Education, ICT Literacy, TVET Subjects, International Languages
GRADES VII – VIII Age 13 – 14	Core Subject Dzongkha, English, M Elective Subject Moral/Values/ ICT Li			0.50.201	entation, HPE, Buddhist Studies
GRADES IV - VI Age 10 - 12	Core Subject Dzongkha, English, M Elective Subject	athematics, Science,	Social Studies		Literacy, TVET Orientation, HPE.
GRADE PP - III Age 6 - 9	Core Subject Dzongkha, English, M Elective Subject HPE, Moral/Values/Bi				

Figure 2.1 General Education PP to XII

Source: Ministry of Education, 2018

2.3 HISTORY CURRICULUM OF BHUTAN

In line with the global view mentioned in the beginning of this chapter, Bhutan also integrated History curriculum with the establishment of modern education in early 1960s. Today, History is one of the important subjects taught in the school.

2.3.1 Importance of History in Bhutan

History is the living past of humankind. It is an attempt made by the people through the centuries to reconstruct, describe and interpret their own past. By informing about the past, History will justify the present and guide us through the future (Royal Education Council, 2018a). The subject teaches us to be proud of our cultural heritage and traditions, rich architecture and literature of our nation (Gyeltshen, 2018). Lindén (2018) explains that with no learning of History, no meaningful education can be done. Such subject needs to be taught well to make learner gain deep appreciations of the subject.

Learning of History is so important in Bhutan that the values of History are taught and introduced from the moment a child is enrolled in the school. A part of Historical information is taught in its simplest form from pre-primary to grade three in the Environmental Studies (E.V.S) subject. From grade four to grade six, History is learned in the Social Studies subject. From grade seven to grade ten, Social Studies branches out to History and Geography (Ministry of Education, 2018). Therefore, grade seven is the laying foundation of History as an independent subject. As students advance to the next grade, the learning of History becomes more complex and sophisticated.

Gyamtsho and Dukpa (1998) mentioned that from mid 1980s the Royal Government of Bhutan started framing its curriculum so that teaching and learning in schools were as per the country's needs and aspirations. One of the major changes in the curriculum was the introduction of Bhutan History textbook for grade 6-8 in 1990 and grade 9-10 in 1993. With this change, students were expected to develop a sense of

self-discipline and duty; promote spirituality, cultural and traditional value; and contribute to national and social unity.

The purpose of education as per the Ministry of Education (2019) is to develop citizen that values Bhutan's national identity, traditional wisdom and culture, to develop individuals who are lifelong learners, who have a holistic understanding of the world and to develop individuals who are critical, creative, informed and engaged in civic affairs. Moreover, preservation and promotion of tradition and culture is also one of the pillars of our national philosophy, Gross National Happiness (GNH). Thus, learning of History inculcates Bhutan's culture, traditions, History, architecture and values in the students.

In general, the History curriculum of Bhutan (grade VII – X) consists of three separate themes (textbook): Bhutan History, Bhutan Civics and World or Indian History. Each textbook has its purpose and objectives as per the grade level. The Bhutan History course intends to build knowledge based on Bhutan's history, culture and values. The study of History is expected to develop in students a sense of appreciation for their tradition and culture and to understand the society that they live in. Likewise, Bhutan Civics aspires to develop the understanding of basic principles of civic duties and responsibilities of the citizens. It also aims to educate the students about the structure and functions of various organs of the government to help them become dedicated and responsible citizens in a democratic society. The integration of World History in the curriculum is to educate students of the world events and their significance (Bhutan council for School Assessment and Examination [BCSEA], 2013).

2.3.2 Grade Seven History Curriculum Aims and Objectives

The following are the aims and objectives of teaching History in grade seven as designed by Curriculum and Assessment Professional Support Division (CAPSD), Ministry of Education (CAPSD, 2007).

Aims: The course will provide opportunities for students to:

- 1) have a better knowledge of the basic historical concept
- 2) be able to perform history-related skills
- 3) develop a positive attitude towards the preservation and promotion of Bhutan's rich cultural heritage and traditions
 - 4) develop appreciation and love for the country and
 - 5) have knowledge of History of the outside world

Objectives of Bhutan History and Civics: At the end of the course the students should be able to:

- 1) relate basic historical concepts to the different events and periods in the History of Bhutan and the world
- 2) state the importance and achievement of Terton Pema Lingpa and Zhabdrung Ngawang Namgyal in Bhutan
 - 3) describe Desi system and the first four Desis
 - 4) describe importance of Dzongs
- 5) determine the effect of British expansion in India in late 18th and 19th century
 - 6) forms of government (Bhutan Civics)

Objectives of World History: At the end of the course the student should be able to:

- 1) determine the emergence of Charlemagne's empire, and its rise and fall
- 2) analyze the evolution of towns in Europe and changes in the life of the people
 - 3) analyze the rise and growth of nations in Europe
 - 4) give brief description of the "Renaissance Period' in Europe
 - 5) draw and read historical maps
 - 6) collect and interpret relevant data and information in various forms

2.3.3 Assessment of History Curriculum

Grade seven History comprises of two sections. Section A is about Bhutan History and Civics of Bhutan while Section B is about World History. The written examinations and the continuous assessments attribute to 80% and 20% of the scores respectively. The students' classwork, homework and project work are some of the continuous assessments as shown in Table 2.1.

Table 2.1 Continuous Assessment of Grade 7, History

	Continuous Assessment	Mid-term	Annual	Total
	(C/W, H/W, P/Work)	Exam	Exam	Total
Section A-				
Bhutan History& civics	20 %	30%	50%	100%
Section B-World history				

2.3.4 Learning Goals of History

Apart from the prescribed academic goals of Grade Seven History by the Education curriculum of Bhutan, CAPSD (2007), the teaching and learning History inculcates values and skills in students such as:

- 1) remembering facts and Rongs
- 2) appreciating and promoting culture and tradition
- 3) developing critical and creative thinking skills
- 4) promoting effective communication
- 5) improving decision making
- 6) developing interpersonal relationship

2.4 GRAPHIC ORGANIZERS

Graphic organizers are graphical representation of concepts or ideas (Owolabi & Adaramati, 2015; Zaini, Mokhtar & Nawawi, 2010). They are instructional tools to help students organize and structure the information with other concepts in logical sequence of instructional material. The information are represented in the form of words, arrows, pictures or models for processing textual information (Yangdon, 2015). Graphic organizers are globally accepted standard instructional tool that can be used across all subjects and with all levels of students (Elwood, 2018; Uba et al., 2017).

Graphic organizers originated as an educational application when Ausubel's ideas developed in 1960's. In early 1960s, Dr. David Ausubel began conducting research on the effectiveness of advance organizers. His hypothesis was that learning occurred most effectively when the learner could connect the learnings with the prior knowledge of the subject. Thus, graphic organizers was identified as visual aids to connect the learning in a way that is meaningful to the learners (Davoudi & Yousefi, 2016; Osborne, 2016).

Studies have shown that using graphic organizers in teaching-learning process proved advantageous. They developed students' performance and promoted higher order thinking (Osborne, 2016; Saynay, 2014). With only few words, concepts are clarified, information and ideas are organized (Cummins, Kimbell-Lopez, & Manning, 2015). The construction of graphic organizers between students and teachers makes the learning more interactive. It also aid students to make their learning visible to the teachers and peers to share and assess their learning (Hanley, 2018).

Thus, due to its effectiveness, graphic organizers are gaining popularity in modern school as a favorite teaching approach in the classroom (Torres et al., 2014).

2.5 TYPES OF GRAPHIC ORGANIZERS

There are several types of graphic organizers such as attribute chart, story map, cause and effect diagram, sequence chart, concept map, big questions, semantic mapping, circle organization and many more (Uba et al., 2017). Therefore, it is important to select and use the graphic organizer according to its purpose and function (Hanley, 2018). Gallavan and Kottler (2007) have identified eight types of graphic organizers to empower students and teachers in learning social studies as shown in Table 2.2.

Table 2.2 Eight Types of Graphic Organizers

Graphic organizers	Purpose	Example(s)
1) Assume and Anticipate	to check prior knowledge and to introduce a topic	KWL chart
2) Position and Pattern	shows sequence, order or cause and effect	Time line or chain
3) Compare and Contrast	to illustrate the similarities and differences of ideas and concepts	Venn diagram
4)Group organizer	shows type, category or classification	Tree chart
5) Relate and reason	shows part to whole and whole to part relationships	Inductive and deductive
6)Identify and imagine	helps students name, describe and brainstorm	Concept mapping
7) Estimate and evaluate	Shows ways to explain, differentiate and examine through various perspective	Includes shapes such as starts and light bulbs
8) Combine and create	gives freedom to express ideas through individualized approaches	can incorporate parts of different organizer and create a new one

2.6 USING GRAPHIC ORGANIZERS TO TEACH HISTORY

Experts states that when the text or chapter is lengthy, multiple graphic organizers could be used to organize the content across the curriculum. The teachers or the learners need to understand the purpose of each type and choose one that best fits the topic or the lesson plans (Zaini et al., 2010). Therefore, the researcher used five types of graphic organizers: 1) Concept mapping, 2) Timeline, 3) Compare and contrast, 4) Cause and Effect and, 5) KWL chart. These tools were used to teach the topic 'Dzong' under Bhutan History in Grade Seven in Bhutan.

Roy Rosenzweig Center for History and New Media (n.d.) identifies flowchart, Venn diagram, story map and timeline are useful graphic organizers in teaching and learning of History. These tools help in learning the important historical concepts, change of events over time, cause and effect of the events, and contrasting cases. Hanley (2018) during her teaching of History to year 8, had used cause and effect charts to show relationships, Venn diagrams to compare and contrast and concept mapping to link concepts. The findings showed that students demonstrated deeper thinking skills and meaningful learning. The data also revealed that students were more active, developed critical thinking and were able to show connections between different concepts.

2.6.1 Concept Map

Concept map is one of the promising method that could enhance student achievement and interest in learning History (Nair & Narayanasamy, 2017). Novak and Goswin (1984) state that use of concept map in teaching empowers the teacher to describe concept of certain texts and engages children actively in the learning process.

Purpose:

- 1) Help in identifying the main points of a text and describe it with subpoints.
 - 2) Help in summarizing/revising the lesson.

How to construct:

- 1) The main idea should be written in the center.
- 2) The supporting ideas branches out from the center ideas.
- 3) The supporting facts/description/examples or characterizes shoots off beneath or around of the main idea.

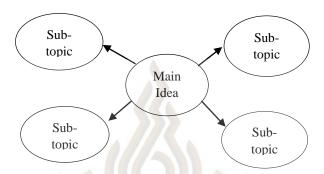


Figure 2.2 Example of Concept Map

Source: Adapted from Santaigo & Solis, 2016

This organizer reflects the relationships of each supporting fact to the center idea but does not reflect a relationship between each supporting fact.

2.6.2 Sequential or Timeline

When an event starts and ends at a certain time period with many related chronological events in between, the information could be presented using a sequential structure or timeline. It helps the student to record and remember the events from a History lesson in a chronological order of day, year or century (Cummins et al., 2015; Hines, 2006).

Purpose: Helps to represent the sequences of a specific historical event.

- 1) Timelines can be constructed vertically or horizontally. Divide the page into two or more column as per the concept in discussion.
 - 2) In one column write time, day or year the event happened.

- 3) In the second column write the event that happened.
- 4) The event should be recorded in chronological order.

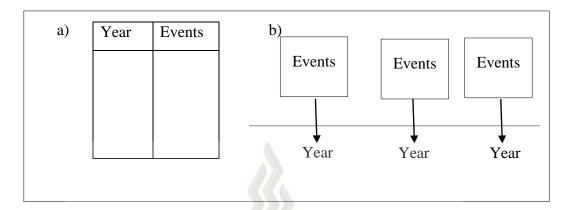


Figure 2.3 Examples of Timeline

Source: Adapted from Gallavan & Kottler, 2010; Longhi, 2016

2.6.3 Compare and Contrast (Venn diagram)

Venn diagram is used to find the similarities and differences between two or more main ideas, characters, events and stories. It is a great tool for brainstorming and creating a comparison (Yangdon, 2015).

Purpose: Helps in identifying similarities and differences between two historical subject.

- 1) Draw two or more circles depending on the number of concepts to be compared.
 - 2) The circles should overlap one another.
 - 3) Give a tittle to each circle.
 - 4) Record the differences of each concept in its respective circle.
- 5) The similarities should be recorded in the overlapping sector (common area).

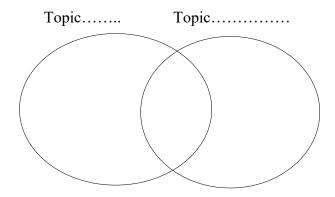


Figure 2.4 Example of Venn Diagram Source: Gallavan & Kottler, 2010

2.6.4 Cause and Effect Diagram

Cause and effect relationships are an essential part of History learning, it help students understand the connections between events which could otherwise be difficult to comprehend. It helps connect and understand how something happen (effect) due to some events (cause) in History (Oliveira, 2016; Yunianti, 2014).

Purpose: Helps in connecting results with effects.

- 1) Divide the paper into two columns, write one as cause and other as effect.
- 2) Connect the cause and effect with arrow to show the relation between these two concepts.

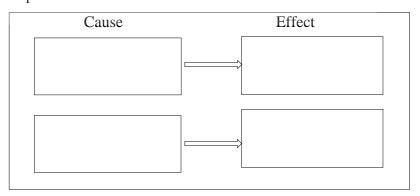


Figure 2.5 Example of Cause and Effect Diagram Source: Adapted from Longhi, 2016

A simpler version of the diagram can focus on single cause and their corresponding effects. A complicated cause and effect diagram has multiple causes and effects leading to the main topic.

2.6.5 K.W.L. Chart

The K.W.L. chart help students built prior knowledge about a particular topic and connect to newly acquired knowledge. The K.W.L. are an abbreviation, K- what I already know, W- what I want to know, and L- what I have learnt. It is a part of constructivist teaching technique (Gyeltshen, 2018).

Purpose: helps students build prior knowledge about a particular topic.

- 1) Draw a 3-column table.
- 2) Name each column with K.W.L. K.W.L. stands for K-what I know, W-what I want to know and L- what I have learnt
- 3) When a topic is introduced, students record what they already know about the topic in the "K" column.
- 4) Encourage students to generate questions on what they want to learn. Record the questions in the "W" column.
- 5) After learning a particular topic, students write the new information in the "L" column.
- 6) The cycle of revisiting old knowledge, recording new information, and asking questions helps students learn that learning is an ongoing process.

Table 2.3 Example of KWL Chart

K-What I Know?	W- What I want to know	L-What I have learned

2.7 IMPLEMENTATION OF GRAPHIC ORGANIZERS

When teachers and students create graphic organizers jointly, they learn from each other. They enhance students' understanding of the lesson. Graphic organizers are easy to create and use. They can be used in pre-reading, writing, revising, discussion, presentation and reasoning (Bromley, 2008). Following are the methods used by various researchers in implementing graphic organizers in their studies:

Table 2.4 Implementation of Graphic Organizers i) Gallavan & Kottler (2007, 2010) ii) Youman (n.d.) Three effective ways of using graphic Three stages of learning graphic organizers organizers 1) Before the instructions: 1) Modeling stage Use graphic organizers before instruction The teacher can first model the graphic to check learners' prior knowledge, organizer. Students will observe how the introduce or preview a topic, brainstorm teacher uses a specific graphic organizer before or after reading a specific text. ideas and motivate interest. 2) During Instruction: 2) Practicing stage

Use graphic organizer during instruction for taking notes, checking, identifying and reorganizing key information, and highlight the learning as a formative evaluation. Eg. Concept map or Tree diagram.

3) After Instruction:

Use graphic organizers after instruction to encourage students to connect ideas with what was learned, to review, reinforce or assess learning. Eg. KWL, cycle diagram

Then students practice the graphic organizer with the help of teacher, peer or in groups after "buddy reading" or group discussion.

3) Individual stage

Once students mastered the use and interpretation of the given graphic organizers, they used it during individual activities.

For this study, the researcher followed Gallavan and Kottler (2010) three effective ways of using graphic organizers. However, when each time the researcher introduced a new graphic organizer, three stages of learning graphic organizers by Youman (n.d.) was followed as shown in Table 2.5:

Table 2.5 Implementation of Graphic Organizers in the Study

Lesson Plan main components (Appendix C, pg no. 89)	Graphic Organizers was used:		
Lesson Introduction	Before instructions- to check children prior knowledge		
	During instructions – to teach concept Whenever, the researcher introduce a new graphic organizers, Youman (n.d.) three stages of learning		
	graphic organizers was followed. Stage 1- Modeling stage: teacher model the process		
Lesson Development	of using the specific graphic organizer.		
£ 330	Stage 2- Practicing stage: Let the students practice in groups and pairs.		
र्वे श्री केंद्र	Stage 3- Individual stage: when the student were familiar with it, the student practiced on their own.		
Lesson Closure	After instructions— to summarize or check the students learning.		

Tayib (2016) and Fisher and Frey (2018) provide further principles to use graphic organizers successfully: i) use of graphic organizers should be clear and simple, ii) teach varieties of graphic organizers and let children pick the tools they think might work best to organize the content, iii) the graphic must be used repeatedly to give better results, and iv) lastly avoid photocopying tools, however for beginners, an example can be shown.

2.8 BENEFITS OF GRAPHIC ORGANIZERS

Yunianti (2014) defines graphic organizers as visual tools that support and enable students to see the relationship between facts, terms and ideas. It help students know what they are learning. The students construct their own graphic organizers individually or in pairs after comprehending the text, which makes the learning interactive.

The use of graphic organizers help teachers in making reading comprehension enjoyable and effective for students. It also develops the students' critical thinking, enhance their writing skills and helps in analyzing the text. Montanero and Lucero (2012) conclude that students who use graphic organizers to organize historical information remembered more.

Graphic organizers could be beneficial for both students and teachers. They could make teaching and learning process enjoyable and interactive for everyone. Some specific benefits of integrating graphic organizers to teachers and students are as follows:

Table 2.6 Benefits of Graphic Organizers

Benefits to students Benefits to teachers Illustrates and explains Makes content easier to relationships between and among understand/comprehend text contents Organize information Makes lessons interactive Identity key points of the text Help learners acquire to Improve memory/remember/recall information more easily Recognize and assimilate different Motivates students points of view Assist students in reading Develop creative and critical thinking comprehension and writing skills Helps to summarize the text ✓ Assess what students know

Source: Adapted from Curriculum Development Institute, 2001

The main advantage of using graphic organizers in learning is that it could be used by all students regardless of their learning abilities and age. They help the students work at their learning speed (Hanley, 2018). A clear, organized graphic organizer aid students in note-taking, presenting information and in linking the new information to their existing knowledge for review (Dye, 2000).

2.9 RELATED LEARNING THEORIES

Learning theories are important to education because they help teachers to understand and meet the students' need. They give a deeper insight on students' prior knowledge and guide the teachers to use appropriate methods to further enhance the learning. Yangdon (2015) states that learning is one of the most important activities in which human are involved throughout their lives. Learning is considered as an active process and learners as a constructor of knowledge from previous knowledge.

2.9.1 Cognitive Learning Theory

Cognitive theory explains how people learn as the thought processes. The theory focuses on how the information is received, organized, stored and retrieved by an individual mind (Yangdon, 2015). Learning is defined in this approach as a change in cognitive structures. Cognitive structures have been described as a way of mentally storing information in categories that makes relationship clear (Gould, 2012). Several cognitive theories namely schema theory, dual coding theory and cognitive load theory are identified that supports the use of graphic organizers in helping students process and retaining information (Wills & Ellis, 2008).

Jean Piaget used the term 'schema' to describe how the newly acquired knowledge and experience are organized and stored internally (Gould, 2012). Human memory is composed of a network of schemas. When people learn something new, the information is stored, structured or hierarchized in organized way in the brain enabling us to retain the information for longer period. The teacher needs to build on students' prior knowledge to help them make connections between what they already know and

what they are going to learn -new concepts (Davoudi & Yousefi, 2016; Owolabi & Adaramati, 2015; Rahat, 2019). Conley (2008) claims that a person's schema are built as he or she absorbs information; the more information and experiences one encounter through life, the more detail his or her schema will be.

Cognitive psychologists view that graphic organizers have a direct link to schema theory. Therefore, the use of graphic organizers could be an effective technique to stimulate learners' prior knowledge. This in turn, helps to establish connection between their background knowledge and new information. Graphic organizers such as concept map, KWL chart, flow chart could be used to brainstorm existing knowledge, relate it with the new topic and to summarize the lesson. This view is supported by Cummins et al., 2015) that the use of graphic organizer help students to organize their thinking about the text and activates the existing schema to create new knowledge. The use of graphic organizers also develop memory retention and retrieval.

The dual coding theory assumes that memory consists of two separate but highly interconnected system for processing information. One system is the verbal system that deals with language and other system is specialized in processing non-verbal imagery (Clark & Paivio, 1991). In other words, the theory talks about the relationships between visual and verbal system. The visual system process and stores images while the verbal system processes linguistic information. Both systems are meaningful units of memory. Without one, the learning will not be meaningful.

Graphic organizers support dual coding of the information through visual and language (verbal) development. As a visual tool, it helps the student to process and remember the content of the text through visualization of the image. Text-based graphic organizers act as a language tool that facilitate the development of knowledge. So the combination of these tools help in better understanding, comprehension, and retention power of information (Owolabi & Adaramati, 2015).

Graphic organizers use the visual system to enhance the operation of the verbal system (Davoudi & Yousefi, 2016). According to Wills and Ellis (2008), the

information learnt through dual coded process are easier to retrieve and recall because of the accessibility to two mental representations instead of one. So, when the student uses both forms constantly, they will be able to think and recall information easily.

The human brain can only process small amount of new information at once. If its capacity is exceeded, the information is likely to be lost. Cognitive load theory is about optimizing the load on students' working memories to help maximize their learning (Center for Education Statistics and Evaluation, 2018). Thus, teachers must use teaching strategies/instructions that maximize learning and reduce the cognitive load on students.

When graphic organizers are used in learning, they reduce the cognitive load and frees the working memory to create space to continue to learn. As a result, the complex text or content could be addressed at more advanced and complex levels by the use of graphic organizers (Virk & Wik, 2011; Wills & Ellis, 2008). If students find the new information complex, teachers need to use lots of examples to connect the prior knowledge to the new information to reduce the cognitive load and maximize learning. Similarly if the new information is found easy, teacher needs to encourage students to represent it in any graphic image to gradually increase the complexity of the lesson to maximize students' learning.

2.9.2 Constructivism Range

Constructivism is a learning theory that describes how people acquire knowledge. It explains how knowledge is constructed by learners through their experiences. The constructivism theory can be traced back to the cognitive theory of Jean Piaget. Piaget was one of the first to put forward the notion that learning occurs through 'construction' of new knowledge when leaners are actively involved in learning (Gatt & Vella, 2003; Gould, 2012). Under constructivism theory, knowledge cannot be passively received but built by the leaners by actively engaging in meaning making process. The constructivist focus more on knowledge as a process and not as a product (Jones & Brader-Araje, 2002).

Constructivism considers social interaction as the main factor in building of knowledge by individuals, communities, societies and cultures (Gatt & Vella, 2003). As a student fills in the graphic organizer, he or she could seek clarification from other students or the teacher. When students communicate with each other, the social aspect of cognitive development by Vygotsky and Piaget is being accomplished (Conley, 2008).

The use of graphic organizers during the class activities engage and connect students with content and processes of learning while working independently, in peer, groups or as a whole class. As children read the text, they construct their own meaning of the text effectively by using existing graphic organizers or create a new one to exhibit their understanding constructively. The graphic representation of the text not only enhance students' comprehension of the text but also helps in its retention.

2.10 RELATED RESEARCH AND STUDIES

Graphic organizers have been used by a number of researchers all over the world in various subjects like English, Mathematics, Science and Social Studies. Most studies have the similar findings which highlights that the use of graphic organizers have adverse effects on students' learning achievement, interest and motivation in the subject. Some of the researches are discussed below:

Mann (2014) carried out research on effectiveness of graphic organizers on the comprehension of social studies content by student with and without difficulties. The study comprised 92 eight grade students studying in West Virginia. The instruments used were pretest, posttest and classroom observations. Pretest and posttest scores were analyzed to determine the effectiveness of using graphic organizers over traditional strategies in the classroom. The result of the study showed that increased scores in posttest and the use of graphic organizers had positive effects on students. The students were found focused in the class reading and discussion. Even the students who never or rarely volunteered to answer questions also started participating by offering answers.

In 2014, Carolyn Traino conducted a study to find out teachers' perceptions about graphic organizers in high school content area classrooms. The findings were that graphic organizers enhanced learning and understanding of the content. It facilitated students' learning by helping them to identify area of focus, helped in writing projects, allowed students to classify and communicate ideas in an organized way. It was also found that the graphic organizers were most effective for struggling learners and those with learning disabilities.

Ilter (2016) conducted a quasi-experimental research with pretest and posttest to investigate the effect of three graphic organizers on word learnings and various emotions in social studies. The graphic organizers used were concept definition map, word-questioning strategy and a circle thinking map. The participants of this study were fourth grade students. The experiment group was instructed on vocabulary by using the graphic organizers, and the control group was taught using traditional method. The findings indicated that the use of graphic organizers improved word recognition and word meaning knowledge. The experimental group also demonstrated positive emotions such as enjoyment, hope and pride (positive emotions) in learning social studies compared to control group that showed emotions of hopelessness.

A quasi-experimental study was conducted by Nair and Narayanasamy (2017) to investigate the effects of using concept maps in teaching History. The research samples were divided into two groups, the experimental group was taught History using concept map methods and the control group was taught using the conventional method. The learning achievement test and questionnaire on interest in learning History were used over eight weeks of study. The finding of this study showed that the use of concept map method significantly improved students' achievement and interest in learning History.

Uba et al. (2017) conducted the study to find out whether students taught through graphic organizers performed better in prose and comprehension assessments. Total of 100 students from four secondary schools participated in the study. The schools were grouped into two: graphic-based schools (GBS) and non-graphic-based schools

(NGBS). The GBS was taught with the use of eight graphic organizers (Big Question Map, Circle Organizer, Discussion Map, Compare-Contrast Matrix, Venn Diagram, Cause and Effect, Story Map and Time Line), and the NGBS served as control group. The researcher concluded that the use of graphic organizers in the classroom enhanced students' interest and guaranteed students understanding and achievement in literature.

Elwood (2018) carried out research to examine the effectiveness of using graphic organizers in improving learning outcomes in the content area of science. Altogether there were five participants who were all eligible for special education services. All participants were exhibiting a need for improvement at their grade level performance as determined by their baseline data collection. With the use of graphic organizers, the students achieved an overall increase with the ability to collect data and retain it better. The use of graphic organizers helped the participants retain content in a more organized manner, which increased their overall memorization skills on the content.

Chabari (2018) carried out study to investigate the effects of Graphic Organizers on Experiential Teaching Approach (GAETO) on students' achievement in Chemistry. The study involved quasi experimental research with two groups. The experimental group was taught using GAETO while Traditional Teaching Methods (TTM) were used in control groups. Purposive sampling was used for the four streams comprising 53, 51, 57 and 55 students in a class. After four weeks, the finding indicated that the students exposed to GAETO had higher achievement than those taught through TTM.

To sum up, it is evident that the use of graphic organizers has huge impact on students' learning achievement and interest. The aforementioned related researches and studies prove that the use of graphic organizers in learning is an effective teaching pedagogy. It not only makes the learning meaningful but also develops comprehension, writing skills, and critical thinking of the students. The graphic organizers serve as tools by which every student is engaged while working individually, pair or in groups during the process of teaching and learning History. Therefore, teachers should consider integrating graphic organizers in the class.

CHAPTER 3

RESEARCH METHODOLOGY

The chapter describes the research design, the population, sample of the study, the research instruments used to collect data, validity and reliability of the research instruments and the data analysis procedure.

3.1 RESEARCH DESIGN

This study used mixed method aiming to find out the learning achievement and the opinions of Grade Seven students towards using graphic organizers to learn History. Mixed research method involves the use of qualitative and quantitative data in a single research project (Halcomb & Hickman, 2015). Creswell (2009) explains that the mix method uses the strengths of both qualitative and quantitative research which provides an expanded understanding of research problems and complex ideas.

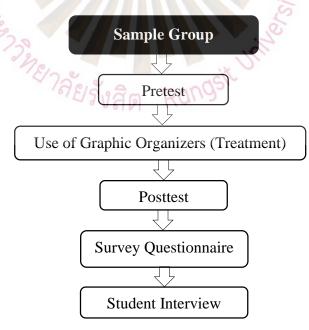


Figure 3.1 Research Design

The quantitative data were collected through learning achievement tests and opinion questionnaires. The qualitative data were collected through semi-structured interview. The learning achievement tests include pretest and posttest which were conducted to compare students' performance before and after the treatment. The survey questionnaire and semi-structured interview were conducted to find out students' opinion on using graphic organizers to learn History. Further, the graphic organizers were incorporated in the lesson plans and implemented for the treatment purpose.

3.2 POPULATION AND SAMPLE

3.2.1 Population

The target population of this study was Grade Seven students studying Bhutan History in one of the schools in Bhutan. The school is located in southern foothills of Bhutan under Sarpang district (See Appendix J for Location of the school). The school has two sections of students studying in Grade Seven in the academic year of 2019. The age range of the population are of 12-17 years old.

3.2.2 Sample Group

The school had two sections of Grade Seven students, of which one section was selected as sample group through indent random sampling. Total of 18 students participated in the study as displayed in the table below:

Table 3.1 Demographic Details of the Participants

	Gender			Age Group			
	Male Female Total			12-13	14-15	16-17	Total
Sample Group	10	8	18	4	12	2	18

Initially, there were 20 students but 2 students got transferred to another school. So 18 students took part in the study, of which 10 were boys and 8 were girls. The age

range of the students were between 12 to 17 years. 12 students were between 14-15 years, 4 students between 12-13 years and 2 students between 16-17 years.

3.3 RESEARCH INSTRUMENTS

In this study four instruments were used to collect the data. These include four lesson plans, learning achievement tests (pretest and posttest), a survey questionnaire and semi-structured interview.

3.3.1 Lesson Plans (An Intervention Instrument)

The researcher designed four lesson plans of 90 minutes each, to teach 'Chapter 4- Dzong' from Grade Seven Bhutan History textbook. This chapter was chosen as per the History Yearly Plan, framed by the subject teacher of the sample school. The topic was further divided into 4 sub-topics and was taught over four weeks. With two sessions every week a total of 8 sessions was conducted.

Amongst many types of graphic organizers, the researcher limited to five different graphic organizers due to timeframe of just one month. These graphic organizers were used as per the appropriateness and context of the topic to be taught illustrated in Table 3.2.

Table 3.2 List of Topics

Time	Topics	Graphic Organizers		
Week 1	Dzong and their importance	i) Concept mapping, ii) Timeline, iii)		
Week 2	Life in Dzongs	Compare and contrast,		
Week 3	Some important Dzongs	iv) Cause and effect, and v) KWL		
Week 4	Effects of Dzongs	chart		

The researcher infused the graphic organizers in lesson plans using the method of Gallavan and Kottler (2010) and Youman (n.d.). The graphic organizers were used before, during and after instructions to teach History to students as shown in Table 3.3.

Table 3.3 Integration of Graphic Organizers to Teach History

Lesson Plan Components	Graphic Organizers was used:				
Lesson Introduction	Before instructions- to check children prior knowledge				
Lesson Development	During instructions – to teach concept Stage 1- modeling stage Stage 2- Practicing stage Stage 3- individual stage Stage 3- individual stage Stage 3- individual stage Stage 3- individual stage Stage 3- individual stage				
Lesson Closure	After instructions— to summarize or check the students learning				

The graphic organizers were used in the beginning of the lesson to introduce or to review the topic, for example KWL chart was used in the beginning of the lesson to check and relate the concept to students' prior knowledge. Then it was used during the instructions/lesson development to help student understand and identify the main idea of the lesson for the day. In the first lesson, the researcher used concept mapping to identify main points about 'Dzong' from the texts. Five different graphic organizers were used for the study, so whenever a new graphic organizer was introduced in the study, the researcher followed the three stages of learning graphic organizers by Youman (n.d). The teacher first modeled the particular graphic organizer, then students practiced in groups, pairs and individually. Finally, graphic organizers were used for lesson closure to summarize and evaluate students' understanding of the lesson (see Appendix C for Lesson Plans).

3.3.2 Quantitative Data Collection Instrument

The quantitative data was collected through learning achievement tests and survey questionnaire.

3.3.2.1 Learning achievement tests

Learning achievement test was conducted to compare the learning achievement of the students, before and after the treatment. It consists of pretest and posttest. Pretest was conducted before giving the treatment and posttest was conducted after the treatment to the same group of students (see Appendix D for Achievement Test).

Bhutanese education framework mandates the test questions to be framed in accordance with Blooms Taxonomy. Blooms Taxonomy consist of six levels-remembering, understanding, applying, analyzing, evaluating and creating. The level moves from lower level to higher level of cognitive learning (Hyder & Bhamani, 2016). Thus, the learning achievement test questions were framed accordingly. It consisted of multiple-choice questions and short answer questions. Some of the questions were adapted from Competency Based Assessment of Class Seven framed by BCSEA (2013).

Table 3.4 Learning Achievement Test Blueprint

				_			
	Remem	Compreh	Applyi	Analyzi	Evaluati	Creatin	Total
	ber	ension	ng	ng	ng	g	1 Otai
	Q. 1	Q.2 (2m)	Q. 7	Q. 3	Q. 4	Q. 6	
	(5m)	Q.2 (2III)	(4m)	(4m)	(3m)	(2m)	
Marks	5	2	1614	4	3	2	20

3.3.2.2 Survey questionnaire

The survey questionnaire was conducted at the end of the study to find out the Grade Seven students' opinion on using the graphic organizers in learning History. The questionnaire had 16 statements. The participating students were asked to indicate the extent of their agreement with each statement on a five point Likert scale from Strongly Agree to Strongly Disagree (5=Strong Agree, 4=Agree, 3=Neutral, 2=Disagree, 1=Strongly Disagree). To avoid confusion, the researcher explained each statement to the students while rating the questionnaire.

The questionnaire was divided into two parts. Part 1 collected demographic details of the participants and Part 2 collected students' opinion on the use of graphic organizers in learning History. It was further divided into four groups a) interest in learning History, b) motivation in learning History, c) learning satisfaction after attending the graphic organizers class, and d) easiness in learning History with the use of graphic organizers (see Appendix E for the Survey Questionnaire).

3.3.3 Qualitative Data Collection Instrument

3.3.3.1 Semi-structured interview

The participants were interviewed at the end of the study to examine their opinion on using graphic organizers to learn History. Five questions were framed to guide the interviews. Kumar (1996) explains that structured interview provides uniform information, which assures the comparability of data. While, the open-ended questions help the researcher to find detailed information about facts or opinions of the respondent, which might not be possible in close-ended questions.

The interviews were conducted in the math lab for about 1-2 hours daily. It took two days to complete the interview. Each student took 10-15 minutes to respond and were given the freedom to speak in the language of their choice. They responded in English and Dzongkha (National language of Bhutan) language. The responses of each student was audio recorded during the interview. Later the researcher translated and transcribed in English. The data were then analyzed using thematic analysis technique (See Appendix F for Semi-structured questions).

3.4 VALIDITY AND RELIABILITY OF THE INSTRUMENTS

3.4.1 Content Validity

Validity is the ability of an instrument to measure what is designed to measure (Kumar, 1996). In simple term, validity of research instrument is the ability to measure

what is intended to measure. In this study, the research instrument were validated by three experts which included one senior professor from Thailand and two experienced History teachers from Bhutan (see Appendix B for Expertise Details).

To ensure that the instruments met the standards as per the objective, Item Objective Congruence Index (IOC) was used to calculate the validity of the instruments. The outcomes of the items were rated from score -1 to +1. If the rating was '+1', it would indicate that the item meets the specific objectives. If the rating was '0', it would indicate the item was not clear. And if the rating was '-1', it means that the item does not meet the specific objective. IOC was calculated using the standard formula $\sum r/n$ where 'r' represents the sum of the score of the individual expert and 'n' represents the number of experts who validates the items. Each item is acceptable and considered valid when the index in the IOC range is 0.67 to 1.00 and unacceptable if the range is below 0.67 to -1. The unacceptable item should be rephrased as per the feedback provided by the experts.

All the instruments for this study were validated and rated above 0.67 by the experts which indicated that the items were valid for the study. The IOC for lesson plans and semi-structured interview questions were rated +1. The semi-structured questions and opinion questionnaire were rated above 0.67 and +1 respectively (See Appendix B for Validity Report by Experts).

3.4.2 Reliability

Reliability test is vital to check the reliability of the test questions. Reliability of a test means how well a test is reliable for the particular study (Kumer, 1996). To check the reliability of the achievement tests and survey questionnaires, the researcher conducted the reliability test with another section of 30 students who were not part of the sample group. Cronbach's aplha was used to measure the reliability of the instruments.

The formula for Cronbach's alpha is
$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N-1) \cdot \bar{c}}$$

Where: N =the number of items.

 \bar{c} = average covariance between item-pairs.

 $\bar{\mathbf{v}} = \text{average variance}.$

Table 3.5 Description of Internal Consistency Using Cronbach's Alpha

Cronbach's alpha	Internal Consistency		
$\alpha \geq 0.9$	Excellent		
$0.9 > \alpha \ge 0.8$	Good		
$0.9 > \alpha \ge 0.7$	Acceptable		
$0.7 > \alpha \ge 0.6$	Questionable		
$0.6 > \alpha \ge 0.5$	Poor		
$0.95 > \alpha$	Unacceptable		

Source: Glen, 2014

The Cronbach's alpha for the learning achievement test was 0.705 and opinion questionnaire was 0.820. As shown in Figure 3.2, the acceptable Cronbach's alpha scale must be equal or higher than 0.7. Both the alpha (α) scores were greater than 0.7, thus the instruments were acceptable and reliable to be used in the study (See Appendix G for the Reliability Test Report).

3.5 DATA COLLECTION PROCEDURES

3.5.1 Seeking Approval

To conduct research in schools of Bhutan, an approval letter from Director General, Ministry of Education, Thimphu, Bhutan was obtained. The approval letter from Ministry of Education was directly delivered to the concerned Principal of the school to allow the research study and the same was sent to the District Education Officer (DEO) for information (see Appendix A for the Letter of Approval).

The researcher then sought permission from Principal and the Grade Seven History teacher to carry out the research (See Appendix H for letter of consent). The participants were informed about the research study, and their consent was sought to take part in the study.

3.5.2 Anonymity and Confidentiality

The participants' details, opinions and the interview records were kept confidential and anonymous throughout the study. The participants were not recognized in the study by name, but numbers were used as an alternative to ensure confidentiality (Eg. Student1, Student 2, Student). This was also informed to the students before the study.

3.6 DATA ANALYSIS

The quantitative data and qualitative data collected were analyzed in two areas:

1) the learning achievement test scores were used to compare the learning achievement of the sample group and, 2) the data collected from the survey questionnaire and interview were analyzed to find out the students' opinion on using graphic organizers in learning History.

3.6.1 Quantitative Data Analysis

The quantitative data was collected through learning achievement test (Pretest and posttest) and opinion questionnaire.

3.6.1.1 Learning achievement scores

The data obtained from the pretest and posttest scores were processed to compare the learning achievements of the sample group before and after the use of graphic organizers. The learning achievement test (pretest and posttest) comprised 10 questions which were adapted from Competency Based Assessment of Class Seven

(BCSEA, 2013). The test questions comprised mixture of multiple choice questions and structured short- answer questions.

The findings of the learning achievement scores was analyzed using Wilcoxon signed rank test. The data was further analyzed by comparing the mean and standard deviation of the two test scores.

3.6.1.2 Survey questionnaire

A survey questionnaire consisting of 16 statements was conducted at the end of the study to find students' opinion towards the use of graphic organizers in learning History. The Likert scale was used to collect the data with five points from Strongly Agree to Strongly Disagree. The questionnaire was adapted from Lhatu (2017). The mean and standard deviation for all the statements was computed and analyzed using a computer program.

The statements were further grouped under four groups (1) Interest in Learning History with the use of graphic organizers, (2) Motivation in learning History with the use of graphic organizers, (3) Learning satisfactions after attending the History lessons using graphic organizers and (4) Easiness of the subject with the use of graphic organizers. The mean and standard deviation for each group was analyzed separately.

The mean and standard deviation scores were interpreted according to the statistical analysis interpretation of the mean score as shown in Table 3.6 below:

Table 3.6 Description of Likert Scale

Level of Opinion	Scores	Scale	Extend of Agreement
Strongly agree	5	4.5-5	Strongly Agree
Agree	4	3.5-4.4	Agree
Neutral	3	2.5-3.4	Neutral
Disagree	2	1.5-2.4	Disagree

Table 3.6 Description of Likert Scale (Cont.)

Level of Opinion	Scores	Scale	Extend of Agreement
Strongly disagree	1	0.00-1.4	Strongly Disagree

Source: Lhatu, 2017

3.6.2 Qualitative Data Analysis

The qualitative data was collected from semi-structured interview responses. The semi-structured interview was conducted at the end of study and was guided by five questions.

3.6.2.1 Semi-Structured interview analysis

Semi-structured interview was conducted to investigate the deeper perspective and clearer understanding of the students' opinion towards using graphic organizers to learn History. Total of eighteen students were interviewed.

The response of each student was recorded during the interview. Afterward, the researcher translated, transcribed and analyzed using thematic analysis. There are various approaches to conduct thematic analysis. However for this study the researcher used six-step process followed by Braun and Clarke (2006, as cited in Maguire & Delahunt, 2017). The six-step process are: i) Familiarization with the data, ii) Coding, iii) Search for themes, iv) Review themes, v) Define themes, and vi) Writing up.

CHAPTER 4

RESULTS AND DATA ANALYSIS

This chapter presents the quantitative and qualitative result analysis of the data collected from learning achievement tests (pretest and posttest), opinion survey questionnaire and semi-structured interviews. The findings are described as per the research two objectives. The findings are presented vividly through use of illustrations like tables and diagrams.

4.1 QUANTITATIVE DATA ANALYSIS

Quantitative data were collected from students learning achievement tests (pretest and posttest) and the participants' questionnaire responses.

4.1.1 Data Analysis of Students' Learning Achievement Test

The first objective of the study was to compare the learning achievement of Grade Seven students in History before and after the use of graphic organizers. The quantitative data collected from pretest and posttest were analyzed using Wilcoxon signed rank test. Total of 18 students took part in the study.

4.1.1.1 Pretest and posttest raw scores analysis

The data collected from the pretest and posttest scores were analyzed to compare the learning achievements of the Grade Seven Bhutanese students before and after the treatment as described in Table 4.1.

Table 4.1 Pretest and Posttest Raw Scores

Student	Pretest	Posttest	Difference	Rank of	Positive	Negative
number	(V1)	(V2)	(V2-V1)	Wilcoxon	Rank	Rank
1	6	15.5	9.5	14	14	-
2	9	11.5	2.5	2.5	2.5	-
3	3	11.5	8.5	12	12	-
4	6	14	8	11	11	-
5	6.5	12.5	6	7.5	7.5	-
6	11	16.5	5.5	6	6	-
7	10	11	1	1	1	
8	7.5	17	9.5	14	14	-
9	12.5	16	3.5	5	5	
10	3	12.5	9.5	14	14	-
11	5.5	17.5	12	17.5	17.5	-
12	8	11	3	4	4	-
13	13.5	16	2.5	2.5	2.5	-
14	9	15	6	7.5	7.5	-
15	7	17	10	16	16	-
16	10%	17	7	10	10	-
17	6	2 18	12	17.5	17.5	-
18	7.5	14	6.5 P	angeo	9	-
			06101	Total	18	0

Table 4.1 shows the raw scores obtained by the students in pretest and posttest, along with Wilcoxon difference in scores (Posttest–Pretest), positive rank and negative rank.

In the pretest, the highest score of the students is 13.5 and lowest score is 3, where else in the posttest the highest score of the students is 17.5 with the lowest score of 11. Student no. 11 and 17 showed the highest difference of 12 points, while

student no. 7 showed the lowest but increase of 1 point. The result scores showed that the posttest scores were higher than the pretest scores.

Table 4.2 Wilcoxon Signed Rank Test Result

Rank of Wilcoxon			Mean	Sum of	Sig.	
Kank of Wheoxon		N	Rank	Rank	(2-tailed test)	
	Negative ranks (a)	0	0.00	0.00		
(Posttest – Pretest)	Positive ranks (b)	18	9.50	171.00	.001	
(1 ostest 1 retest)	Ties (c)	0			.001	
Total		18				

- a. Posttest < Pretest
- b. Posttest > Pretest
- c. Posttest = Pretest

Table 4.2 shows the Wilcoxon signed rank test analysis of the data from pretest and posttest. Out of 18 participants, not a single student had negative rank (N = 0). The positive rank of N = 18, indicates that 100% of the students had improved their scores in the posttest as compared to pretest. The sig. value was .001, which indicates the result was statistically significant.

4.1.1.2 A Comparison of the pretest and posttest mean scores

The pretest and posttest scores of the sample group was carried out using descriptive statistics analysis. The comparison was interpreted in the form of mean (\bar{x}) and standard deviation (SD) as shown in Table 4.3.

Table 4.3 Pretest and Posttest Mean Comparison

Test	N	Mean (\bar{x})	Standard Deviation (SD)	Mean Differences
Pre-test	18	7.83	2.88	14.64 - 7.83 = 6.81
Post-test	18	14.64	2.43	7.03 - 0.01

Table 4.3 shows the mean (\bar{x}) and SD of the pretest and posttest score before and after the use of graphic organizers. The pretest mean (\bar{x}) score was 7.83 and the posttest mean (\bar{x}) score was 14.64, with the mean difference of 6.81. The standard deviation (SD) for pretest and posttest were 2.88 and 2.43 respectively. As per Barde and Barde (2012) cited in Gyeltshen (2018), smaller SD indicated consistency while higher SD showed scores were spread out from the mean. The SD of the posttest was 0.45 lower than the SD of pretest, indicating that the posttest scores of the students were more concentered towards the mean.

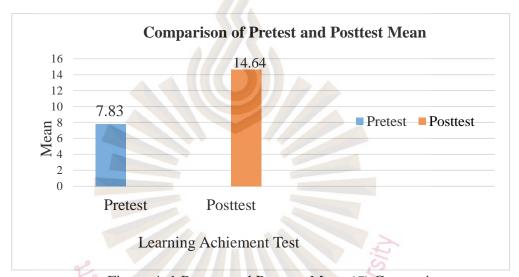


Figure 4. 1 Pretest and Posttest Mean (\bar{x}) Comparison

Figure 4.1 further illustrates comparison of pretest and posttest mean score. With the data analysis, it can be interpreted that the posttest mean score was much higher than the pretest. The use of graphic organizers in learning History had positive impact on the learning achievement of Grade Seven Bhutanese student.

4.1.2 Data Analysis of Questionnaire

The second objective of the study was to find students' opinion towards using graphic organizers in learning Bhutanese History. So the quantitative data was collected using opinion questionnaire conducted at the end of the study.

The questionnaire composed of 16 statements and was ranked using Likert Scale with five points ranging from Strongly Disagree to Strongly Agree (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=Strongly Agree). The questionnaire statements were further grouped under four categories.

The mean (\bar{x}) and standard deviation for all the statements and also the mean (\bar{x}) and standard deviation of each group were analyzed and interpreted according to the statistical analysis interpretation of the mean score described in Table 3.6 (Description of Likert Scale, pg. no. 42).

Table 4.4 demonstrates the mean and standard deviation of each questionnaire statement together with the level of agreement collected and analyzed from student's survey questionnaire at the end of the study.

Table 4.4 Mean and Standard Deviation of the Questionnaire

Sl	Statement	Mean	SD	Level of
No.	Statement	(\bar{x})	שנ	Agreement
1	I like studying History using graphic	4.50	0.62	Strongly
	organizers	0		Agree
2	I have a positive attitude towards studying History after using graphic organizers	4.22	0.73	Agree
3	I enjoy using graphic organizers to learn	4.61	0.50	Strongly
	History.	1.01	0.50	Agree
4	History subject is fun and interesting when	4.50	0.62	Strongly
	taught using graphic organizers.	7.50	0.02	Agree
5	Teaching History through graphic organizers	4.33	0.91	Agree
	motivated me to like subject.	1.55	0.71	rigice
6	Learning History using graphic organizers has	4.61	0.50	Strongly
	more impact in understanding the content.	7.01	0.50	Agree
7	It has brought positive impact on me to	4.33	0.69	Agree
,	develop interest in learning history.	T.33	0.07	115100

Table 4.4 Mean and Standard Deviation of the Questionnaire (Cont.)

Sl	Statement	Mean	SD	Extend of
No.	Statement	(\bar{x})	SD	Agreement
8	I feel confident when I learn History lessons with graphic organizers.	4.33	0.60	Agree
9	I understood all the lessons taught using graphic organizers.	4.06	0.54	Agree
10	I could relate the text information to real life, instead of just memorizing it.	4.33	0.69	Agree
11	I am actively participating in the classroom, and can express my opinion and join discussion.	4.56	0.62	Strongly Agree
12	The use of graphic organizers guided me in the course of learning History.	4.67	0.49	Strongly Agree
13	I like studying History with the integration of graphic organizers.	4.50	0.71	Strongly agree
14	I find History very easy after the integration of graphic organizers.	4.44	0.51	Agree
15	I am sure to get good score in history.	4.61	0.50	Strongly Agree
16	I am interested to increase my History knowledge with graphic organizers.	4.67	0.60	Strongly Agree
	Total	4.46	0.32	Agree

Table 4.4 above shows that the total mean (\bar{x}) was 4.46 and SD was 0.32, which according to level of opinion falls on 'Agree'. The overall mean scores range from 4.06 to 4.67. Out of 16 statements in the questionnaire, 9 statements (Item No. 1, 3, 4, 6, 11, 12, 13, 15 &16) were rated as 'Strongly Agree' and 7 statements (Items No. 2, 5, 7, 8, 9, 10 and 14) were rated as 'Agree'. The lowest mean score was rated for statement No. 9, "I understood all the lessons taught using graphic organizers.' The highest mean score was rated for statement no. 12 and 16 with the mean score of 4.67, "The use of graphic organizers guided me in the course of learning history" and "I am interested to increase my History knowledge with graphic organizers".

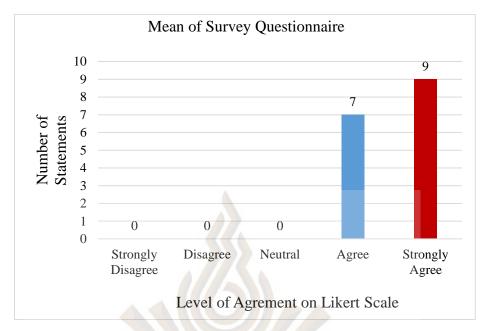


Figure 4.2 Comparison of Students' Opinion Questionnaire Mean Scores

Figure 4.2 displays the overall mean score of the statements as per the description of Likert scale (Table 3.4, pg. no. 44). Out of 16 statements, it can be observed that no or zero statement had the mean score which fall under 'Strongly disagree, Disagree or Neutral'. However, 7 statements fall under 'Agree' (mean range 3.5 - 4.44) and 9 statements fall under 'Strongly Agree' (mean range 4.5 - 5). These signifies that the students had positive opinions and were satisfied in using the graphic organizers to learn History.

The items under the questionnaires was further categorized under four groups:

1) Interest in learning History with the use of Graphic organizers, 2) Motivation in learning History with the use of graphic organizers, 3) Learning satisfaction after attending the History lesson using graphic organizers, and 4) Easiness of the subject with the use of graphic organizers. Each group was analyzed and interpreted according to the mean and standard deviation scores as shown in Table 4.5.

Table 4.5 Mean and Standard Deviation of the Questionnaire in Groups

Sl	Opinion Group	Mean	SD	Extend of
No.	Opinion Group	(\bar{x})	യ	Agreement
1	Interest in learning History with the use of graphic organizers	4.46	0.35	Agree
2	Motivation in learning History with the use of graphic organizers.	4.40	0.45	Agree
3	Learning satisfaction after attending the History lesson using graphic organizers.	4.40	0.35	Agree
4	Easiness of the subject with the use of graphic organizers	4.56	0.40	Strongly Agree

Table 4.5 above interprets that among the four groups, the group No. 4 (Easiness of the subject with the use of graphic organizers) showed the highest mean (\bar{x}) score of 4.56, followed by group no. 1 (Interest in learning History with the use of graphic organizers) with the mean (\bar{x}) score of 4.46. The Motivation in learning History and Learning Satisfaction displayed same mean (\bar{x}) scores of 4.40. Amongst four groups, students strongly agree that the use of graphic organizers is easy to use and helps in comprehension of the subject, thought the mean score in interest in learning History with use of graphic organizers is marginally low (4.46). The graphic organizers was easy to use due to its simple way of constructions of organizers. Overall, the four groups fall on 'Agree' and 'Strongly Agree' as per the Likert Scale description.

Table 4.6, 4.7, 4.8 and 4.9 below further demonstrates the mean, Standard deviation and level of agreement of the questionnaire of each group as categorized in Table 4.5.

Table 4.6 below shows that the total mean score in interest of learning was 4.46 and SD was 0.345. The highest mean score was 4.61 rated for the statement no. 3, "I enjoyed using graphic organizers to learn History". The lowest mean score was 4.22

rated for statement no. 2, "I have a positive attitude towards studying History." Statement no. 1 and 4 had same mean score of 4.50.

Table 4.6 Interest in Learning History with the Use of Graphic Organizers

Sl	Statement	Mean	SD	Extend of
No		(\bar{x})		Agreement
1	I like studying History using graphic organizers	4.50	0.62	Strongly
				Agree
2	I have a positive attitude towards studying	4.22	0.73	Agree
	History	1.22	0.75	115100
3	I enjoy using graphic organizers to learn History	4.61	0.50	Strongly
				Agree
4	History subject is fun and interesting when	4.50	4.50 0.62	Strongly
	taught using graphic organizers.			Agree
	Total	4.46	0.35	Agree

Table 4.7 Motivation in Learning History with the Use of Graphic Organizers

Sl	Statement	Mean	SD	Extend of
No.	Statement	(\bar{x})	SD	Agreement
5	Teaching History through graphic organizers motivated me to like subject.	4.33	0.91	Agree
6	Learning History using graphic organizers has more impact in understanding the content.	4.61	0.50	Strongly Agree
7	It has brought positive impact on me to develop interest in learning history.	4.33	0.69	Agree
8	I feel confident when I learn History lesson with graphic organizers.	4.33	0.60	Agree
	Total	4.40	0.45	Agree

Table 4.7 above displays the total mean (\bar{x}) score in motivation of learning was 4.40 and SD was 0.45. Statement no. 6, "Learning History using graphic organizers has

more impact in understanding the content" showed highest mean (\bar{x}) score of 4.61, while the other three statements had equal mean (\bar{x}) score of 4.33.

Table 4.8 Learning Satisfaction after Using Graphic Organizers

Sl	Statement	Mean	SD	Extend of
No.	Statement	(\bar{x})		Agreement
9	I understood all the lessons taught using graphic organizers.	4.06	0.54	Agree
10	I could relate the text information to real life, instead of just memorizing it.	4.33	0.69	Agree
11	I am actively participating in the classroom, and can express my opinion and join discussion.	4.56	0.62	Strongly Agree
12	The use of graphic organizers guided me in the course of learning History.	4.67	0.49	Strongly Agree
	Total	4.40	0.35	Agree

Table 4.8 presents the summary of the total mean score of learning satisfaction after the use of graphic organizers was 4.40 and SD was 0.35. The highest mean score was 4.67 rated for statement no. 12, "The use of graphic organizers guided me in the course of learning History". Statement no. 9, "I understood all the lessons taught using graphic organizers" had the lowest mean score of 4.06.

Table 4.9 below shows the total mean score of easiness of the subject after the use of graphic organizers was 4.56 and SD was 0.40. The highest mean score was 4.67 rated for statement no. 16, "I am interested to increase my History knowledge with graphic organizers". The lowest mean score was 4.44 rated for statement no. 14, "I find History very easy after the integration of graphic organizers." Overall the students "Strongly Agree" that the use of graphic organizers makes learning History easy.

Table 4.9 Easiness of the Subject with the Use of Graphic Organizers

Sl	Statement $Nean$ SE	SD.	Extend of	
No.		$(\overline{\mathbf{x}})$	SD	Agreement
13	I like studying History with the integration	4.50	0.71	Strongly
	of graphic organizers.			agree
14	I find History very easy after the integration	4.44	0.51	Agree
	of graphic organizers.			118100
15	I am sure to get good score in history.	4.61	0.50	Strongly
				Agree
16	I am interested to increase my History	4.67	0.60	Strongly
	knowledge with graphic organizers.			Agree
	Total	4.56	0.40	Strongly
				Agree

4.2 QUALITATIVE DATA ANALYSIS

The qualitative data was collected through semi-structured interview to further respond to the second objective of the study. The interview was conducted at the end of the study with eighteen Grade Seven students. To protect the privacy of the research participants, they were numbered as student 1, Student 2, and Student 3 and so on. The students were allowed to speak in language they felt comfortable to share their opinions on the study. The data was analyzed using six steps approach (thematic analysis) by Braun and Clarke (2006, as cited in Maguire & Delahunt, 2017). The response of students was recorded and translated in English for data analysis.

The data were read, analyzed and coded (interpreted) into themes based on the research objectives and questions of the study. The data from the students' interviews are analyzed under seven themes: 1) Learning Interest, 2) Learning Motivation, 3) Easiness of Use, 4) History Comprehension Enhancement, 5) Performance Improvement, 6) Classroom Participation Enhancement, and 7) Time Allocation. Most students gave positive response in using graphic organizers to learn History.

4.2.1 Learning Interest

The students shared that the use of graphic organizers made the learning fun and interesting. They were not bored and enjoyed the lessons taught through graphic organizers. The activities such as discussion and presentations in peers and groups were interesting activities for the students.

"I enjoyed the constructing graphic organizers with friends. We had presentation, group discussions, reading and many more interactive activities." (Student 8)

"I used to fall asleep but this time I enjoyed discussing and learning together with my friends." (Student 14)

"I used to find History boring but this time I found it interesting. I learnt different way to learn History." (Student 16)

4.2.2 Learning Motivation

Most students during the interview mentioned that they were highly motivated to learn when the graphic organizers was used in learning Bhutan History. The use of graphic organizers made the learning easy, which encouraged and inspired them to learn and take part in the classroom activities. It also built their confidence to share their learning with friends.

"Graphic organizers motivated me to like History. When the teacher asked questions, I could visualize the graphic diagrams in my mind which helped me to answer the questions." (Student 6)

"Before I didn't take part in class activities but this time I was motivated to participate in the activities." (Student 12)

"Before I was not so confident, but now I could share my ideas, my confidence level increased." (Student 16)

4.2.3 Easiness of Use

The student mentioned that the five types of graphic organizers were easy and comfortable to use in learning History. The use of various graphic organizers made the comprehension of the text easy to understand, analyze and recall. It also helped them to make notes and improved memorizing.

"In the beginning I found it difficult but later I found it easy to use. It helps in understanding the text and also in writing important notes." (Student 3)

"Graphic organizers was easy and comfortable to use." (Student 5)

"Before I didn't like History but with the introduction of graphic organizers, I have started liking History as it is easy to use." (Student 17)

4.2.4 History Comprehension Enhancement

Students conveyed that they were able to understand and learn History text better with the use of graphic organizers. It helped them to identify and remember the key points of the long text. The use of different graphic organizers made the learning better, such as timeline was useful to record the events in chronological order, Venn diagram in finding similarities and differences in two events, and concept maps to identify the main points. The graphic organizers transformed the complex text into simple notes which was easy to write and understand.

4.2.4.1 Remembering fact

"By using graphic organizers I can easily remember the past events, names and years." (Student 1)

"History is about learning the past, the graphic organizers helped me to remember those past." (Student 11)

4.2.4.2 Understanding the text

"I understand History better by drawing graphic organizers" (Student 16)

"There are different types of graphic organizers to comprehend the text and so when we use the particular graphic, the text becomes very easy to understand. It helps in understanding and learning the text faster." (Student 18)

4.2.4.3 Identifying the key points

"It has helped me to identify main points and write important notes." (Student 4)

"Graphic organizers helped me to identify those important points of the text and helped me to learn History better." (Student 15)

4.2.4.4 Writing notes

"I can write short notes with the use of graphic organizers." (Student 5)

"The use of graphic organizers helped me to write short points in shorter period of time." (Student 16)

4.2.5 Performance Improvement

Most students during the interview shared that use of graphic organizers helped them improve their performance. Students were confident that constant use of graphic organizers in History lessons would improve their performance in History. The graphic organizers helped in identifying the main points, remembering the facts and writing notes which could be used as revision notes. Moreover, most students planned to continue using graphic organizers to learn History.

"I could not score much before but now I am confident I can perform well in History." (Student 6)

"Graphic organizers helps in remembering the fact which would help me to score more in the exam." (Student 10)

"The duly filled graphic organizers will also help during exam time. We need not look at the textbook, just by looking at the graphic organizers notes we could recollect the points." (Student 17)

4.2.6 Classroom Participation Enhancement

The students shared that the use of graphic organizers provided them the opportunity for interactions, discussion and exchange of ideas. During the interview, the students mentioned that earlier they could not participate in the classroom activities as they could not understand the lesson. However, with the help of graphic organizers they could comprehend the text and so could exchange their ideas with friends. This active participation in the activities had built their confidence.

"Before I didn't participate much in class activities, but this time I did because I could understand the text and thus response to questions." (Student 3)

"The strategy gave me opportunity to learn and share my learning with friends." (Student 9)

"I liked presentations as I could understand better when other presents. We got opportunity to speak in the class, and could relate some of our life incidents with text and explain accordingly." (Student 13)

4.2.7 Time Allocation

One of the student responded that more time was needed to practice the graphic organizers. The researcher agrees with the feedback of the student as the duration of data collection was one month which consists of eight periods of intervention teaching, leading to less time for practice.

"We need more time to practice graphic organizers." (Student 6)

The findings from the interview showed that all the students were satisfied and happy to use graphic organizers, almost all students did not face any difficulties in using graphic organizers. The graphic organizers were interesting and easy to use. It helped them in remembering, recalling, summarizing and taking notes within a short duration.

With all those positive findings, the researcher concludes that the use of graphic organizers enhance students' learning in History. The learning achievement of students significantly improved after the integration of graphic organizers, and the students also expressed positive opinions towards using graphic organizers to learn. The next chapter will discuss the results, the major findings of the study along with recommendations and suggestions for further research.

CHAPTER 5

CONCLUSION, DISCUSSION AND RECOMMENDATIONS

This chapter contains the conclusions to the findings of the study presented in chapter 4. It is followed by discussions of the findings and recommendations for future studies and research.

5.1 CONCLUSION

This study was governed by two research questions:

- 1) Would there be any improvement in Grade Seven students' learning achievement in History after using graphic organizers?
- 2) What were the opinions of students about using graphic organizers in learning History in Grade Seven?

The data were collected and analyzed from learning achievement test (pretest and posttest scores), opinion questionnaire and semi-structured interview.

5.1.1 The Result of Test Score Analysis

The researcher used the scores of pretest and posttest to respond to the first research questions. The scores were analyzed using Wilcoxon signed rank test with comparison of mean and standard deviation. The data clearly showed that all the students had increased their posttest scores as compared to their pretest scores.

The Wilcoxon signed rank test showed 18 students in positive rank, 0 students in negative rank and 0 students in ties, which signified that all the students improved

their performance after the treatment. The significance values of 0.001 indicated significant increase in the scores of the students in posttest. The improvement scores in the posttest ranged from 1point to as high as 12 points. The mean scores in the pretest and posttest were 7.83 and 14.64 respectively, with the mean difference of 6.81. The difference in the mean score indicates that the students performed better in posttest as compared to pretest.

Thus, the study concluded that there was a significant improvement in the learning achievement of Grade Seven students when graphic organizers were used in learning History. Accordingly, the first research questions and the first hypothesis (H1-The learning achievement of grade seven students would improve after the use of graphic organizers in History) have been ascertained.

5.1.2 The Result Analysis of Survey Questionnaire

The purpose of the survey questionnaire was to respond to the second research questions. The questionnaire consisting of 16 statements was conducted at the end of the study. Eighteen participants took part in the survey. The participants were made to rate each statement in Likert scale of 1 to 5 that read from Strongly Disagree to Strongly Agree. The data collected from this instrument were computed and analyzed using descriptive analysis (mean and standard deviation).

The result showed the total mean score (\bar{x}) of 4.46 and SD of 0.32, indicating that the student 'Agree' using graphic organizers improves learning. Out of 16 statements in the questionnaire, 9 statements fall under 'Strongly Agree' and 7 statements fall under 'Agree.' Statement no. 16 and 12 had the highest mean (\bar{x}) score of 4.67, and the lowest mean (\bar{x}) score of 4.09 was rated for statement no. 9. No mean (\bar{x}) scores fall below the rank score of 4.

The statements were further grouped under four categories (interest to learn, motivates learning, learning satisfaction and easiness of the subject). Of the four groups, Easiness of the subject had the highest mean (\bar{x}) score of 4.56, followed by Interest in

learning with the mean (\bar{x}) score of 4.46. Motivates in learning and Learning satisfaction showed equal mean (\bar{x}) scores of 4.40. The mean scores of the four groups fall under 'Agree' and 'Strongly Agree' level.

The findings from the questionnaire concluded that the students expressed positive impact of using graphic organizers in learning History. Moreover, the findings supported the second research question and second hypothesis (H2- Grade Seven students would have positive opinions about the use of graphic organizers in teaching and learning History). The findings were further supported with the findings from the interview.

5.1.3 The Result of Semi-structured Interview Analysis

The semi-structured interview was carried out at the end of the study to find students' opinion toward the use of graphic organizers in teaching and learning History. Total of 18 students were interviewed. Thematic analysis was used to analyze the interview data. The researcher used six step process to analyze the responses of the students under seven themes namely learning interest, learning motivation, easiness to use, History comprehension enhancement, performance improvement, classroom participation enhancement and time allocation.

The result showed that the students were interested and motivated to learn History when graphic organizers were used. The activities such as discussion and presentations were interesting activities for the students, it helped them to learn together with friends. The students mentioned how graphic organizers made the learning easy, which motivated them to share their learnings with friends.

The findings also showed that the use of graphic organizers enhanced students' learning in History. The graphic organizers helped them to identify the key points, improved writing and reading comprehension skills. It also helped them to remember and recollect the History lessons in a short period. As a result, they understood the text better and could perform well in the subject. The students mentioned that since the

graphic organizers were easy to use they would continue using them to learn History and other subjects too.

Thus, the positive responses from the interview data supplemented the findings of the survey questionnaire. The findings further support the second research question and second hypothesis.

5.2 DISCUSSION

The following major findings are discussed in accordance to the research objectives. The findings of the study are supported by the previous research and studies mentioned in earlier chapters.

5.2.1 Research Objective 1 - To compare the learning achievement of grade seven students in History before and after the use of graphic organizers.

To compare the learning achievement of Grade Seven students, pretest and posttest were conducted before and after the use of graphic organizers with a sample group of 18 students. The findings revealed that the posttest mean scores (\bar{x} 14.64) were significantly higher than the pretest mean scores (\bar{x} 7.83) with the mean difference of 6.81. The significance value (P-value) was 0.001. These indicated that there was increase in learning achievement of the students in History after the use of graphic organizers.

All students showed increased scores in posttest in comparison to the pretest scores, including the struggling learners. Upon interview with these students, they responded that the use of graphic organizers helped them to understand the text better. The graphic organizers are easy to draw and use. It helped the students to identify the key points, making the complex text easy to remember and understand. This finding corresponds to the findings by Traino (2014), the graphic organizers were most effective for struggling learners and also for those with learning disabilities. Hanley (2018) also

mentions that graphic organizers could be used by all students regardless of their learning abilities.

This study also supported the fact that the use of graphic organizers in classroom had constructive impact on the academic achievement of the students. The finding was parallel to studies conducted by Nair and Narayansamy (2017) and Chabari (2018). These researchers reported that the performance of the students who were taught using graphic organizers was better than the students taught in traditional method. The students were actively involved in learning during all lessons. When teachers and students jointly construct the graphic organizers, they learn from each other. Through this collaborative activity, students of all grade levels learn how to organize knowledge and can confidently use graphic organizers as learning strategy to improve their learnings (Bromley, 2008).

Improvement in posttest scores could be attributed to fact that when graphic organizers are integrated in the classroom, it enhances student comprehension power of the new materials, improves recall, promotes higher order thinking and can comprehend text, replaces or emphasizes text (Osborne, 2016; Saynay, 2014). The use of graphic organizers such as KWL connected prior knowledge to the new concept, letting the students understand the new Historical information and ideas. The use of timeline arrange the past events in chronological order, helping the students to remember the events better. The venn diagram helped to find the similarities and differences between two or more concepts. The concept mapping helped to identify the main points and the sub points of the long history text. And the use of cause and effect helped students to critically analyze the effects of the past events with the present. So all the five different graphic organizers used by researcher in learning had positive effects on students' academic performance in History.

Kirschbaum (2004) states when educators use graphic organizers, the children saw the importance of what is being taught and how information is being connected. This had effect on their grades and learning. Thus, very much the like the findings of

the previous researches, this study also showed that the use of graphic organizers in the classroom increased the learning achievement of the students.

5.2.2 Research Objective 2- To find out the opinion of the Grade Seven students about using graphic organizers in learning history.

The instruments used for the second objective of the study were survey questionnaire and semi-structured interview. The responses from the interview supplemented the findings of the questionnaire in detail.

Opinion questionnaire was conducted at the end of the study to explore the second objective of this research. The total mean score of the questionnaire was 4.46 and SD of 0.32 which fall under 'Agree' of the Likert Scale description. The 16 statements were grouped under four topics. Easiness of the subject with the use of graphic organizers had the highest mean of 4.56, followed by Interest in learning History with the use of graphic organizers (mean 4.46). Motivation in learning History and Learning satisfaction after attending the History lesson using graphic organizers had equal mean of 4.40 respectively. There was no mean which ranked below 4. Hence, the data collected from the opinion questionnaire prove that the use of graphic organizers brought positive change in the opinions of the Grade Seven students in learning History.

The semi-structured interview was carried out at the end of the study to find the students opinion towards the use of graphic organizers in teaching and learning History. The data collected were analyzed using thematic analysis technique. The finding further supplemented the findings from the questionnaires. The positive impacts were motivations, interesting, interactive, easy to use, enhanced classroom participation and showed better performance in the subject.

According to the findings from the interview, all the students found the lessons interesting and joyful. This kind of learning was better than traditional method as it require students to participate actively during the lessons. "When we are able to understand the text, we feel motivated to learn history. It also built our confidence

because we are able to take part in discussion," was shared by most students during interviews. This finding is supported by Ilter (2016) who reported that the use of graphic organizers demonstrated positive emotions such as enjoyment, hope and pride in learning History.

Enthusiasm to take part in activities was another finding of the interviews and the opinion questionnaire. Bromley (2008) pointed out that graphic organizers promotes active learning by requiring one to read, talk, listen, think, draw, write and create. The students were found actively participating in the class, be interms of answering the questions or clarifying the doubts, sharing the information with friends or helping the friends. Additionally, the constructivism theory supports that knowledge cannot be built passively but requires an active engagement in meaning making process. The use of graphic organizers engages students in the learning process independently, in peer, groups or as a whole class (Gattt & Vella, 2003; Jones & Brader-Araje, 2002). The interactive and engaging nature of graphic organizers thus helped students to outgrow their learning.

The findings also showed that graphic organizers were easy to use. The students could easily construct various graphic organizers and use for different purpose which made the learning effective. For instance, Venn diagram helps to find differences and similarities between two events, concept mapping to summarize, KWL to check prior knowledge and Timeline to record various events in chronological order. Similarly, Gallavan and Kottler (2010) have suggested timeline, maps, cause and effect chart, Venn diagram to teach "Henry VIII' to students. It was found that these were valuable tools to make learning meaningful. The use of graphic organizers in learning History developed in students the skills to accomplish the six level of Blooms taxonomy-remembering, comprehending, applying, analyzing, evaluating and creating.

When graphic organizers were used, they helped the students to understand and recall the text better. This learning is supported by cognitive theory where the cognitivist believe that a person's prior knowledge is stored in the cognitive structure of the brain. The use of graphic organizers helps to relate the new information to the prior knowledge,

helping student's process, organize and store the new information internally (Gould, 2012). The findings of this study coincided with the study conducted by Elwood (2018).

The students reported that graphic organizers helped in understanding the text better. This finding was supported by Uba et al. (2017) who stated that the students taught with graphic organizers performed better in comprehension assessment. The use of graphic organizers helped the students in comprehending the text easily by organizing and structuring the information in logical manner. The graphic organizers like the conceptual map and flow chart organize the information and improve the instructions of mental modes. Through the use of graphic organizers, the children learn to analyze the text meaningfully and organize the information in their mind (Conley, 2008; Hanley, 2018).

Apart from the students' progress in their academic performance, the learning of History lesson inculcated the values of respect, ownership and appreciation for the unique culture and tradition of the country. The students developed a close connection with their immediate culture and tradition practiced in their society. These habits were seen directly influential in the students' participation and involvement in preservation of the uniqueness of the society and the nation as whole. For example, the learning on 'Dzongs' made the students to appreciate its unique architecture and reason out the importance of preserving and promoting it. The concrete knowledge of history also contributed to the students' intellectual development in terms of narration of historical facts which might otherwise perish if not preserved.

Thus, the above finding explains how the use of graphic organizers in the classroom positively impacts the overall learnings of the students.

5.3 RECOMMENDATIONS

5.3.1 Recommendation for Practice

Following recommendations have been made based on the results of the study for the benefits of teachers and educators globally.

- 1) The graphic organizers should be implemented to improve students' learning achievement and interest by all teachers irrespective of subject area, class level and class size.
- 2) Only limited number of graphic organizers are known to teachers. So teachers should be trained to use various graphic organizers as instructional tools.
- 3) The History curriculum officer could design and represent the long abstract historical information in graphic formats (eg. venn diagram, tree line, cause and effect), so that students could easily understand, relate, analyze and recall the information.

5.3.2 Recommendation for Further Research

- 1) Similar studies could be conducted with different grade levels, larger sample size and longer duration to strengthen the findings.
- 2) Graphic organizers were found to be effective in reading comprehension, so a study could be conducted on their effectiveness in reading comprehension of History lesson.
- 3) The students acknowledged that graphic organizers could be used as note-taking for learning, so further research could be conducted to find its effectiveness as note-taking in higher secondary schools.

4) The study focused on five types of graphic organizers, other types could be explored for more effective learning.

History subject has vast information which are abstract and complex for students to understand. Further, the use of traditional teaching method makes the teaching and learning boring. Therefore, a strategy involving the use of graphic organizers are found efficient in helping students construct and organize historical information in graphic forms, which are much easier to understand. When different types of graphic organizers are used before, during and after instructions, it help students to remember and recall, without memorizing the text. In addition, the involvement of students in the learning process sustain their interest in the subject.

However, a limitation in the use of graphic organizers is observed. In the initial stage, it takes time to familiarize teachers and students in designing and implementing the graphic organizers. However, if familiarization is carried out right from the elementary or foundation level, it would be easier by the time they reach secondary level. Infact, both the learners and teachers would benefit immensely.

Overall, it is an effective teaching approach that is very much required in today's classrooms, especially in teaching and learning History. Students must be provided with best experiences in learning History as it is not only the study of the past through memorization of names and events but it defines who we are and what we ought to be in future.

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APPENDIX A LETTER OF APPROVAL RONGSIT UNIVERSAL R



The Director General Department of School Education Ministry of Education Thimphu, Bhutan

Date: 2 July 2019

Subject: Request for Permission to Collect Data for M. Ed. Theses

Dear Sir/Madam,

Suryadhep Teachers College for the M. Ed. Program in Curriculum and Instruction would like to request your permission for ten M. Ed. candidates to collect data in Bhutan in the period of 29 July 2019 - 1 September 2019. The details of the candidates are shown below:

SI. No	Name	Research Title	Research School	
1	Chhimi Dorji	The Use of Project-based Learning on Understanding Scientific Concepts of Grade VI Bhutanese Students	Tencholing Primary School, Wangduephodrang	
2	Buddha Singh Tamang	Application of Content and Language Integrated Learning (CLIL) Approach for English Learning of Secondary School Bhutanese Students	Punakha Central School, Punakha	
3	Cheki Wangmo	The Use of Numbered Heads Together (NHT) on the Learning Achievement of Bhutanese 6 th Grade Students in Science	Tongmijangsa Primary School, Trashiyangtshe	
4	Damber Singh Mongar	The Use of Animated Movies to Enhance Narrative Writing Skills of Grade 6 Bhutanese ESL Students	Gaselo Central School, Wangduephodrang	
5	Lhadon	The Use of Visual Imaginary Strategy to Enhance English Reading Comprehension Skills of Grade Four Bhutanese Students	Trashiyangtshe Lower Secondary School, Trashiyangtshe	
6	Namkha Wangdi	Motivation Among ESL learners: An Investigative Study of Grade 12 Students in Bhutan	Karmaling Higher Secondary School and Orong Central School, Samdrupjongkhar	
7	Norbu Kezang	The Application of Place-based Inquiry Approach on Grade 6 Bhutanese Students in Learning Environmental Science	Udzorong Central School, Tashigang	
8	Pema Wangzom	The Use of Graphic Organizers in Teaching History to Grade Seven Students in Bhutan	Dekiling Middle Secondary School, Sarpang	
9	Tenzin Jamtsho	The Effect of Using Games Incorporating Manipulatives in Geometry for Grade 6 Students in Trashiyangtshe, Bhutan	Trashiyangtshe Lower Secondary School, Trasgiyangtshe	
10	Tshering Denkar	Teachers' Perception of Early Childhood Care and Development Centers: Effects on Pre- Primary Students in Bhutan	Paro district	

Thank you for your kind consideration.

Truly yours;

Assistant Professor Anchalee Chayanuvat, Ed.D.

Dean of Suryadhep Teachers College

Rangsit University

Muang-Ake. Paholyothin Road

Lakhok, Pathumtani 12000 THAILAND

Tel +662-997-2222 ext. 1275, 1276 Fax +662-997-2222 ext. 1277



र्यत्यः वृत्रः त्वुवाः वृत्रः देवाः वृत्रः देवाः वृत्रः त्वा

Ministry of Education Department of School Education School Planning and Coordination Division



DSE/SPCD/SLCU(2.1)/2019/ 1645

August 2, 2019

The Principal
All the Participating School(s)

Subject: Approval to conduct research and collect data for M.Ed. Theses

Dear Sir/Madam,

The following group of teachers are currently undergoing M.Ed Program in Curriculum and Instruction at Suryadhep Teachers College in Rangsit University, Thailand. As part of the study program, they will be collecting data from the students and teachers for their research project from August 5 through September 30, 2019.

SLNO	NAME	RESEARCHTITLE	RESEARCH SCHOOL
1	Chhimi Dorji	The Use of Project-Based Learning on Understanding Scientific Concepts of Grade 6 Bhutanese Students	Tencholing Primary School, Wangdue Phodrang
2	Buddha Singh Tamang	Application of Content and Language Integrated Learning (CLIL) Approach for English Learning of Secondary School Bhutanese Students	Punakha Central School, Punakha
3	Cheki Wangmo	The Use of Numbered Heads Together (NHT) on the Learning Achievement of Bhutanese 6th Grade Students in Science	Tongmijangsa Primary School, Trashiyangtse
4	Damber Singh Mongar	The Use of Animated Movies to Enhance Narrative Writing Skills of Grade 6 Bhutanese ESL Students.	Gaselo Central School, Wangdue Phodrang
5	Lhadon	The Use of Visual Imaginary Strategy to Enhance English Reading Comprehension Skills of Grade Four Bhutanese Students	Trashiyangtse Lower Secondary School, Trashiyangtse
6	Namkha Wangdi	Motivation Among ESL Learners: An Investigation Study of Grade 12 Students in Bhutan.	Karmaling Higher Secondary School and Orong Central School SamdrupJongkhar
7	Norbu Kezang	The Application of Place-based Inquiry Approach on Grade 6 Bhutanese Students in Learning Environmental Science.	Udzorong Central School. Tashigang
8	Pema Wangzom	The Use of Graphic Organizers in Teaching History to Grade 7 Students in Bhutan	Dekiling Middle Secondary School, Sarpang.
9	Tenzin Jamtsho	The Effect of Using Games Incorporating Manipulatives in Geometry for Grade 6 Students in Trashiyangtse, Bhutan	Trashiyantse Lower Secondary School, Trashiyangste
10	Tshering Denkar	Teachers' Perception of Early Childhood Care and Development Centers: Effects on Pre-Primary students in Bhutan	Paro Dzongkhag Schools

In this regard, you are kindly requested to facilitate them to collect data as per their schedule with minimal disruption to instructional time of the school.

Thanking you

Sincerely yours,

Kinley Grelishen) Chief Program Officer

Copy to:

1. Chief DEO, Dzongkhag Administration, for kind information.

APPENDIX B VALIDITY TEST RESULT OF THE RESEARCH INSTRUMENTS



Details of three expertise who validated the instruments

Three Experts are:

- 1) Expert 1: Asstt. Professor Dr. Usaporn Swekwi, Rangsit University, Thailand
- 2) Expert 2: Mr. Phuntsho Namgay, M.Ed/B.Ed, History Teacher, Wangbama Central School, Thimphu.
- **3) Expert 3:** Mr. Jigme, MA (History)/B.Ed, History Teacher, Dekiling M.S. School, Sarpang.

Instruments

- 1) Four Lesson Plans
- 2) Learning Achievement Test
- 3) Opinion Questionnaire
- 4) Semi-Interview Questions

IOC for the lesson plans

Items	Expert 1	Expert 2	Expert 3	IOC	Remarks
Lesson Plan 1	+1	+1	+1	+1	Congruent
Lesson Plan 2	+ 1	+ 1	+ 1	+ 1	Congruent
Lesson Plan 3	+ 1	+ 1	+ 1	+ 1	Congruent
Lesson Plan 4	+ 1	+ 1	+ 1	+ 1	Congruent
		17			

IOC for the Learning Achievement Test

Items	Expert 1	Expert 2	Expert 3	IOC	Remarks
Question 1	+1	+1	0	0.67	Congruent
Question 2	+ 1	+ 1	+ 1	+ 1	Congruent
Question 3	+1	+1	0	0.67	Congruent
Question 4	+1	+ 1	0	0.67	Congruent
Question 5	+1	+1	+1	+ 1	Congruent
Question 6	71	+1	+1	+ 1	Congruent
Question 7	+1272	8/3/20	Pandsir	+1	Congruent
Question 8	+ 1	410	+1	+ 1	Congruent
Question 9	+ 1	+ 1	+1	+1	Congruent
Question 10	+ 1	+ 1	+ 1	+ 1	Congruent

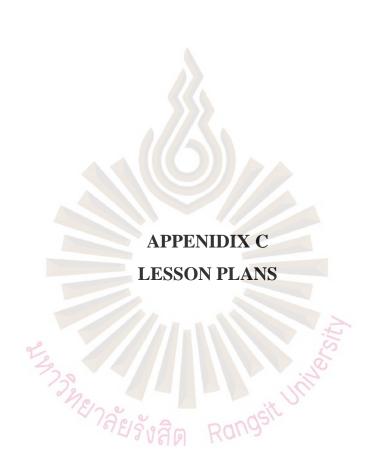
IOC for the Opinion Questionnaire

Items	Expert 1	Expert 2	Expert 3	IOC	Remarks
Question 1	+ 1	+ 1	+ 1	+ 1	Congruent
Question 2	+ 1	+ 1	+ 1	+ 1	Congruent
Question 3	+ 1	+ 1	+ 1	+ 1	Congruent
Question 4	+ 1	+ 1	+ 1	+ 1	Congruent
Question 5	+ 1	0	+ 1	0.67	Congruent
Question 6	+ 1	0	+ 1	0.67	Congruent
Question 7	+ 1	+ 1	+ 1	+ 1	Congruent
Question 8	+ 1	+ 1	+1	+ 1	Congruent
Question 9	+ 1	+1	+1	+ 1	Congruent
Question 10	+1	+ 1	+1	+1	Congruent
Question 11	+1	+ 1	+1	+ 1	Congruent
Question 12	+1	+ 1	+ 1	+ 1	Congruent
Question 13	+1	0	+1	0.67	Congruent
Question 14	+1	+1	+1	+1	Congruent
Question 15	2 + 1	+ 1	+ 1	+ 1	Congruent
Question 16	73	+1	+1	+ 1	Congruent
	^र 77 _{ने}	ยรังสิต	Rangsit		

IOC for the Interview questions

Items	Expert 1	Expert 2	Expert 3	IOC	Remarks
Question 1	+1	+1	+1	+1	Congruent
Question 2	+ 1	+ 1	+ 1	+ 1	Congruent
Question 3	+ 1	+ 1	+ 1	+ 1	Congruent
Question 4	+ 1	+ 1	+ 1	+ 1	Congruent
Question 5	+ 1	+ 1	+ 1	+ 1	Congruent





LESSON PLAN 1

Class: VII No. of student: 20 Subject: History

Date: Time: 90 minutes

Session 1 & 2

Topic: Dzong and its functions

Teaching Strategy: Dzong and its functions

Teaching/Learning Materials: print of graphic organizers

Lesson Objectives: By the end of the lesson children will be able to

• Define what is graphic Organizer

• Identify types of graphic organizers

Define Dzong

• State the significance of Dzong

LESSON INTRODUCTION- 10 minutes

- Exchange greetings. Make the classroom comfortable for teaching and learning.
- Ask the following questions to inquire about prior knowledge.
 - Do you know what Graphic Organizer is?
 - Have you use it before in the class?
 - Give some examples of graphic organizer?

LESSON DEVELOPMENT

Activity 1: Input- 30 minutes

- Define the term Graphic Organizers and let students know that it is a method of learning.
- Explain the benefits of using it.
- Identify different types of Graphic Organizers and its purposes (Venn diagram, cause and effect, timeline, KWL chart, concept mapping)
- Use the PowerPoint presentation to explain how to use graphic organizers.

Activity 2: Teacher modeling concept mapping -15 minutes

- Ask children to open the book on page no. 21. Read aloud the first paragraph.
- Ask the following questions
 - What is the paragraph about?
 - What does the dzong means?
 - Who built the first dzong in Bhutan? Name the dzong.
 - O Why was it built?
- As student answers, teacher will write it done on board using concept mapping.

Activity III: Student Activity -25 minutes

- Divide the class into four groups with five members each (based on roll number).
- Ask children to read the second and third paragraph on page no. 21. Identify the key ideas of the text and construct a concept map on it.
- The concept map will be displayed in the class.
- Discuss on the constructed graphic organizer.

LESSON CLOSURE -10 minutes

- Using the above concept map, ask children to answer the following questions.
 - o What materials were used to build dzong?
 - What were the functions of Dzong during Zhabdrung's time?
 - Why were dzongs built on top of mountains and confluence of rivers?

Assessment and Evaluation Criteria (Checklist

Sl No.	Items	Yes	No	Remarks
1	Children can identify the central idea using			
	concept mapping			
2	Children can identify the supporting ideas			
	from the central idea.			
3	Children can define dzong			
4	Children can explain the significance of			
	dzong			

Lesson Plan No. 2

Class: VII No. of student: 20 Subject:

History

Session 3 & 4 Date: Time: 90

mins

Topic: Life in the Dzong

Teaching Strategy: Use of Graphic Organizers

Teaching/Learning Materials: print of graphic organizer and vocabulary chart

Previous knowledge of the student: student knows the importance of dzong.

Lesson Objectives: By the end of the lesson children will be able to

• Describe the life in dzong

- Compare how different was the life in dzong during olden times and present life of the children.
- Arrange the various official working in dzong according to rank.

LESSON INTRODUCTION -10 minutes

- Introduce the topic 'Life in Dzong'.
- Display a big chart of KWL chart (K-what do I know? W- What I want to know? L- What I have learned?)
- Brainstorm on prior knowledge by asking following questions.

What do you know about life in Dzong?

Who all stays in Dzong?

• As children answers, fill up the first two column of KWL chart.

K-What do I know?	W- What I want to know?	L- What I have learned?

• The third column will be filled in the end of the lesson.

LESSON DEVELOPMENT

Activity 1: Read aloud -10 minutes

- Teacher will ask children to open page no. 22. Teacher reads aloud the text for children focusing on vocabulary and pronunciation.
- Let children read the text in pair for 3 minutes.

Activity 2: Group Discussion -25 minutes

- Teacher will divide the class into five groups with four members each (odd number and even roll number).
- Teacher shows a sample of timeline.
- Ask children to read, discuss and create timeline showing particular events that
 happens from morning till evening in dzong (pg. no. 22, life in dzong). They
 will also discuss on how similar and different is their life from the life in
 Dzong.
- The presentation will be made in the next session.

Activity 3- Group Presentation -20 minutes

- Student will display their organizer and make presentation.
- Give feedback accordingly.
- After presentation, let children write short answers on the following questions:
 - O Do you think the life in the Dzong was easy?
 - o How similar or different is your life with the life in dzong?

Activity 4: Individual Activity -20 minutes

- Read the text on page no. 23. Ask children to identify all the officials working in the dzong.
- Teacher gives a copy of hierarchy chart showing officials working in dzong according to the rank. Ask children to write the roles of each officials against their name.
- Then ask children to answer the questions
 - o Who was the head of the Dzong?
 - O Which official wears red scarf and white scarf?
 - o Why did Zimpoen stayed behind during winter?
 - o How were the officials paid for their services in the dzong?

LESSON CLOSURE -5 minutes

• Let the children to fill up the What I Learnt column of KWL chart.

• Ask some children to comprehend the filled KWL chart as per their understanding.

Assessment and Evaluation Criteria

Class work Assessment (rubrics)

		Criter	ria	
	4	3	2	1
Completeness	100% work	70% work	50% work	20% work
	complete	complete	complete	complete
Accuracy	100% accurate	70% accurate	50% accurate	20% accurate
Presentation	Std. work is	Std. shows an	Std. shows	Std. shows
	thorough, clear	adequate	some work	very poor
	and legible for	amount of	but it is	work, poor
	all problems.	work for each	inadequate.	handwriting
	Student has	problem. Std.	Std has not	and no
	included all	included some	included	illustrations.
	relevant	relevant	relevant	
	illustrations	illustrations	illustrations.	
Originality	Display original	Partial display	Little display	No display of
and	and creative	of original and	of original	original and
creativity	ideas.	creative ideas.	and creative	creative
		11111111111	ideas	ideas.

Lesson Plan No. 3

Class: VII No. of student: 20 Subject:

History

Session 5 & 6 Date: **Time:** 90

mins

Topic: Some of the important dzongs

Teaching Strategy: use of Graphic Organizer

Teaching/Learning Materials: print of graphic organizer and vocabulary chart

Previous knowledge of the student: student knows the importance of dzong, life

in dzong and name some officials working in the dzong.

Lesson Objectives: By the end of the lesson children will be able to

• name some of the important dzongs in Bhutan

• Compare the similarities and differences of each dzong

LESSON INTRODUCTION -5 minutes

- Ask: What have we learned yesterday? You can state any fact or values learned.
- Teacher use concept mapping to brainstorm and connect the ideas.

LESSON DEVELOPMENT

Activity I: Teacher modeling the Venn diagram -20 minutes

- Teacher show pictures of two Dzongs, Semtokha Dzong and Wangduephodrang Dzong.
- Ask children to identify the Dzong. Share anything they know about these Dzongs.
- Teacher display a big chart of Venn diagram.
- Read the text on Semtokha Dzong and Wangduephodrang Dzong and fill the Venn diagram. Discuss the differences and similarities between these two dzongs.

Activity II- Group Discussion -20 minutes

• Teacher will divide the class into four groups (numbered head together).

- Each group will be assign with two dzongs as show in table below. In their group, it will be further divide into two mini-group, one mini-group will work in one dzong, and another mini-group will work in second dzong. Later they compiled the work together.
- Ask children to draw Venn diagram as demonstrated by teacher.
- Student will make presentation in next class.

Topic	Group
Punakha Dzong and Tashichhodzong	A
Paro Dzong and Daga Dzong	В
Jarkar Dzong and Trongsa Dzong	С
Punakha Dzong and Tashichhodzong	D

Activity III-Group Presentation -35 minutes

- The groups will present their discussed work in activity II.
- Each presenter will get 8 minutes to present.
- Teacher will accordingly give feedback based on assessment rubrics.
- Ask children to display their work in the class.

LESSON CLOSURE -10 minutes

Answer the following questions

- 1) Between two dzongs, Punakha Dzong and Tashichhodzong which dzong you think is important according to your views? Justify with three reasons.
- 2) What is the importance of Trongsa Dzong?
- 3) How many dzongs were built by Zhabdrung? List all.

Assessment and Evaluation Criteria

Rubrics for Group Presentation

	Criteria					
	4	3	2	1		
Explanation	A complete	Good solid	Explanation is	Misses key		
	response with a	response with	unclear	points		
	detailed	clear				
	explanation	explanation				
Demonstrate	Shows complete	Shows	Response	Response		
knowledge	understanding	substantial	shows some	shows a		
	of the questions,	understanding	understanding	complete lack		
	ideas and	other problem,	of the	of		
	process	ideas and	problems	understanding		
		processes		of the		
				problem		
Requirement	Goes beyond	Meets the	Hardly meet	Does not meet		
	the requirement	requirement of	the	the		
	of the problem	the problem	requirements	requirement		
9			of the	of the		
	720		problem	problem		
ลัยรังสิต Rangsit						

Lesson Plan No. 4

Class: VII No. of student: 20 Subject:

History

Session 7 & 8 Date: **Time:** 90

mins

Topic: Some of the important dzongs (continue)

Teaching Strategy: use of Graphic Organizer

Teaching/Learning Materials: print of graphic organizer and vocabulary chart

Previous knowledge of the student: student knows the importance of dzong, life

in dzong and name some officials working in the dzong.

Lesson Objectives: By the end of the lesson children will be able to

• Tell at least three important dzongs in Bhutan.

• Compare the difference in functions of dzongs then and now.

Session I

LESSON INTRODUCTION -5 minutes

- Ask some volunteer student to briefly share their experience, values or knowledge learnt till now.
- Teacher will then introduce the topic and lesson objective of the day.

LESSON DEVELOPMENT

Activity 1- Pair work -15 minutes

- Teacher will ask the children to form in pair.
- They will read the text on 'Wangduephodrang Dzong' and highlight the key points of the text.
- They can use any one of the graphic organizers: timeline, Concept mapping, or Venn diagram to comprehend the text.
- Each pair will share their work and view of using that particular graphic organizer to other pairs.

Activity II- Individual Activity -20 minutes

Answer the following questions (Assessment)

1) Name three dzongs built by Zhabdrung.

- 2) List three modern dzongs of Bhutan.
- 3) Use venn diagram to show how traditional dzongs and modern dzongs are similar and different.

LESSON CLOSURE -5 minutes

Discuss on how traditional dzongs and moderns dzongs are similar and different with examples.

Session II

Topic: Dzongs

Teaching Strategy: use of Graphic Organizer

Teaching/Learning Materials: print of graphic organizer and vocabulary chart

Previous knowledge of the student: student knows the importance of dzong, life in dzong and describe some of the important dzongs.

Lesson Objectives: By the end of the lesson children will be able to

- Analyze why dzongs are important in Bhutan
- Cause and effects of Zhabdrung's visit to Bhutan and the importance of dzongs.

LESSON INTRODUCTION -5 minutes

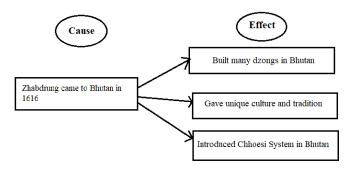
- Teacher will show Bhutan map.
- Ask some children to come in front and locate all the dzongs learnt till now on the map.

LESSON DEVELOPMENT

Activity I- Teacher modeling cause and effect diagram -10 minutes

- Teacher will divide the board in two column, one column is 'Cause' and second column is 'Effect'
- Teacher will then ask: When did Zhabdrung come to Bhutan? (The answer is the cause)
- Why is Zhabdrung important in Bhutan? (The answer is the Effect)
- As student respond, teacher will write on the board as shown below.

•



Activity II- Group Activity -20 minutes

- Teacher will form 5 groups of four members each (based on topic they choose).
- Will ask children to choose any one of the effect as given in activity I. This becomes their 'Cause' and write the 'effect'
- Children share their ideas in the groups and prepare the cause and effect charts.
- Children will display their chart.
- Feedback/comments will be done by the member of other groups. (Group 1 will be assessed by Group 2, Group 3 by Group 4 and Group 4 by Group 1)

LESSON CLOSURE-5 minutes

Teacher will use concept mapping to summarize the whole lesson.

Assessments and Evaluation Criteria

Criteria for Feedback by Children

- a) Presentation (cleanliness, handwriting, color combination)
- b) Organization of ideas
- c) Positive points and areas for improvements
- d) Ideas you agree and ideas you do not agree (if any)



Learning Achievement Test

Class Seven	Subject: Bhutan History
Topic: Dzongs	Total: 20 marks
Part A	
Direction: Choose the correct answer and write it in t	he space provided. $(1 \times 5 = 5)$
marks)	
1. The word 'dzong' means a	
A. castle.	C. fortress.
B. palace.	D. monastery.
Answer:	
2. Dzongs were first built in Bhutan by	
A. Zhabdrung Ngawang	C. Mijur Tenpa
Namgyal	D. Sherab Wangchuk
B. Lama Gyalwa Lhanangpa	
Answer	
3. Ancient name of Paro Dzong is	2/4
A. Rinpung Dzong	C. Do nyen Dzong
B. Hungrel Dzong	D. Sinmo Dokha Dzong
Answer	
4. Who looks after the monk body in Bhutan?	
A. King	C. Dzongda
B. Je Khenpo	D. Government
Answer	
5. King Ugyen Wangchuck became the first hereditar	y monarch of Bhutan in
A. 17 th November, 1907	C. 18 th December, 1917
B. 17 th December, 1907	D. 18 th December, 1904
Answer	

Part B

Direction: Answer all the following questions

Question 6

Explain the following term

(2 marks)

- a) Do chhen
- b) Do ngon

Question 7

Compare and complete the table with two usages of a dzongs $(1 \times 4 = 4 \text{ marks})$

Usage of dzong during olden times	Usage of dzong in modern times
i	i
ii	ii

Question 8

"Life in Dzong was interesting." Do you agree? Support with two points. (3 marks)

Question 9

What could have been the situation if Zhabdrung Ngawang Namgyal had not built any dzongs in Bhutan? Give two views. (2 marks)

Question 10

Mark the following letters on the given map to locate Dzongs (1 x 4=4 marks)

- PD- Punthang Dechen Phodrang Dzong
- JD Jakar Dzong
- **RD- Rinpung Dzong**
- TD- Trashichhoedzong



Source: https://www.vectorstock.com/royalty-free-vector/contour-bhutan-map-vector-1608051

Test Blueprint

	Remem	Compre	Apply	Analyzing	Evaluatin	Creatin	Tota
	ber 🐾	hension	ing		g	g	1
	Q. 1	Q.2	Q. 7	Q 3 (4m)	Q 4 (3m)	Q 6	
	(5m)	(2m)	(4m)	adsit	0,	(2m)	
Marks	5	2 2	7140	Rais	3	2	20

APPENDIX E SURVEY QUESTIONNAIRE

Par Rangsit United Ra

Student No.....

OPINION QUESTIONNAIRE

The Opinion Questionnaire is handed out to Grade 7 students who are learning History using Graphic Organizers. The questionnaire is developed with the intention to check the opinion of students towards the teaching and learning History using Graphic Organizers. This paper filled by you will be kept confidential and will be used for this survey only. Please answer all the statements as best as you can.

Part 1: Demographic data

Di	rect	ion: Put a	tick mark $$ in the brackets ():		
	1.	Gender:	()male ()female		
	2.	Age: () between 12-13 ()between 14-15	()between 16-
		17			

Part II: Students' Opinion

Please mark $(\sqrt{})$ on your level of opinion (from strongly agree to strongly disagree towards each statement.

		Scale	, it
Strongly Agree 5,	Agree 4,	Neutral 3,	Disagree 2, Strongly Disagree 1

Sl	SI Opinion		Scale						
No.	"राधिक श्रेतिल Rang"	5	4	3	2	1			
A	Interest in learning History with the use of graphic								
A	organizers								
1.	I like studying History using graphic organizers.								
2.	I have a positive attitude towards studying History.								
3.	I enjoy using graphic organizers to learn History.								
4.	History subject is fun and interesting when taught using								
	graphic organizers.								
В	Motivation in learning History with the use of graphic								
Б	organizers								

	Teaching History through graphic organizers motivated		
5.	me to like subject.		
	Learning history using graphic organizers has more		
6.	impact in understanding the content.		
	It has brought positive impact on me to develop interest		
7.	in learning history.		
	I feel confident when I learn History lesson with graphic		
8.			
	organizers.		
C	Learning satisfaction after attending the graphic		
	organizers class		
9	I understood all the lessons taught using graphic		
	organizers.		
10	I could relate the text information to real life, instead of		
10	just memorizing it.		
11	I am actively participating in the classroom, and can		
11	express my opinion and join discussion.		
12	The use of graphic organizers guided me in the course of		
12	learning History.		
D	Easiness of the subject after integration of graphic		
D.	organizers.		
12	I like studying history with the integration of graphic		
13.	organizers. Raise		
1.4	I find history very easy after the integration of graphic		
14.	organizers.		
15.	I am sure to get good score in history.		
	I am interested to increase my history knowledge with		
16.	graphic organizers.		

Source: Adapted from Lhatu (2017)

APPENDIX F SEMI-STRUCTURED INTERVIEW QUESTIONS



Semi-Structured Interview

Student No. Date of interview: Time of the

interview:

Venue: School Canteen/Library

Age: Gender: Male/Female

- 1) Did you enjoy the class? How?
- 2) How did you feel about using graphic organizers to learn History?
- 3) What did you like most from the lesson? Why?
- 4) Do you think the use of graphic organizers will help you learn history better? Why or why not?
- 5) Would you continue to use graphic Organizers hereafter to learn history? Why?

(Adapted from Tashi (2018), Deki Pelden (2018)



APPENDIX G RELIABILITY TEST SCORES OF RESEARCH INSTRUMENTS



1. Reliability Test Result of Survey Questionnaire

Reliability Statistics

Cronbach's Aplha	Cronbach's Aplha based	N. of items
	on standardized Items	
.820	.820	16

Case Processing summary

		N	%
Case	Valid	30	100.0
	Excluded	0	.0
	Total	30	100.0

Scale Statistics

Mean	Variance	Std. Deviation	N. of items
64.20	44.924	6.703	16

2. Reliability Test Result of Learning Achievement Test

Reliability Statistics

Cronbach's Aplha	Cronbach's Aplha based	N. of items
	on standardized Items	
.705	.643	15

Case Processing summary

	1///	N	%
Case	Valid	30	100.0
	Excluded	0	.0
	Total	30	100.0

Scale Statistics

Mean	Variance	Std. Deviation	N. of items
15.1	9.128	3.021	15

APPENDIX H CONSENT LETTER FROM PRINCIPAL

Par Rangsit University

Date: 5th August, 2019

CONSENT FORM

Sir

I am currently enrolled in the Master of Education in Curriculum and Instruction at Rangsit University, Thailand. In order to fulfill the requirement of my Masters' degree, I am undertaking a research on 'The use of Graphic Organizers in teaching History to grade Seven Students of Bhutan.' This research study will involve enhancing student performance in learning History using graphic organizer strategy. I will be teaching 'Dzong' from grade seven History Syllabus from 5th August till 31st August, 2019 during schools hours. The content of the teaching will be no different from what they are supposed to learn. I believe it will surely help students to improve their academic performance in History. The questionnaire, classroom observations and interviews will be conducted towards the end and will be used solely for research purposes.

Therefore I would like to seek permission to let one section of grade seven students to participate in this study. Their names, identifications and school will not be used in the research paper or presentations. It is important to note that all information provided will be confidential.

I thank and greatly appreciate for your support in this research.

Sincerely,

(Peura Wangzom)

Student, Rangsit University, Thailand.

I acknowledge the content of this research study has been thoroughly explained to me and any questions have been answered. I have read the letter provided by Ms. Pema Wangzom and agree to let grade seven students to participate in the research as described.

Dekiling M.S. School, Sarpang Principal

Dekiling Middle Secondary School Sarpang Dzongkhag

วิทยาลัยรังสิต

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APPENDIX I TRANSCRIPTION OF INTERVIEW RESPONSES (SAMPLE)

Student 9/recording 7/20th august, 2019

1) Did you enjoy the class? How?

Yes I enjoyed the class and I found this strategy different. Before I didn't understand History but this time I found it easy to summarize and write notes. I could remember the topic easily

2) How did you feel about using graphic organizers to learn History?

I felt very happy because it was interesting. This strategy will help us to learn and share our learning with our friends. I found the questions answers activity in the end was interesting. The graphic organizers helped me in remembering, summarizing and making notes.

3) What did you like most from the lesson? Why?

I like the importance of Dzong from this lesson. Before I didn't know much about Dzong but now I know its importance and History. I also liked using time and events, it help me to remember the dates easily.

4) Do you think the use of graphic organizers will help you learn history better? Why or why not?

Yes because when we use graphic organizers it help us to learn History easily. The constructed graphic can be used as revision notes. This will help me to learn not only in history but other subject as English, geography and Dzongkha. We need more practice to learn it.

5) Would you continue to use graphic organizers hereafter to learn history? Why?

Yes because it is very easy and we finish our chapter easily. And when we do exam it will help us to summarize the lesson.

Student 13/recording 4/date 22nd august, 2019

1) Did you enjoy the class? How?

Yes I enjoyed the class because it was taught in different ways. Previously the teacher only explained the whole text but with the use of graphic organizer we could remember the important points learned in previous class. It inspire me to learn history subject with more interest.

2) How did you feel about using graphic organizers to learn History?

I feel super by using graphic organizers to learn History because we can understand and could easily remember the important points. It help me to understand the text better and also motivated me to learn more.

3) What did you like most from the lesson? Why?

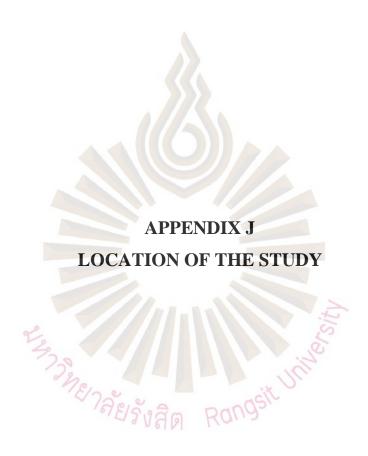
I like graphic organizers because we can easily remember the important words that we learned in earlier periods. I liked presentations as we got opportunity to speak in the class, and could relate some of our life incidents with text and explain accordingly.

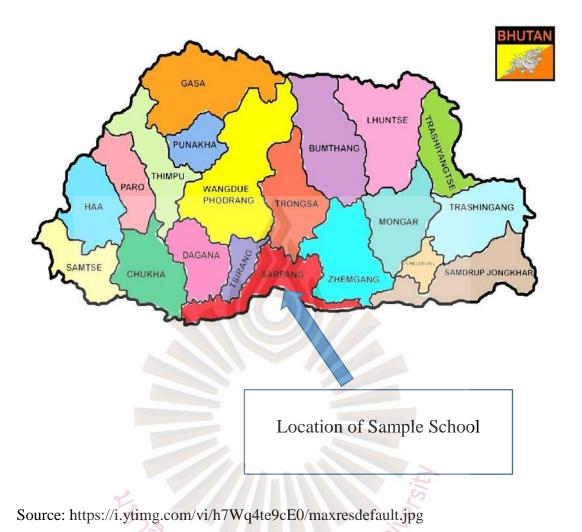
4) Do you think the use of graphic organizers will help you learn history better? Why or why not?

Yes it is better to use graphic organizers as it will help to learn better. It help us to remember and identify the key words/important words, later while studying or in test we can elaborate on it. We could easily understand the past events and learn values from them.

5) Would you continue to use graphic organizers hereafter to learn history? Why?

Yes I will use graphic organizers hereafter to learn history because it is easy to write about past and we can remember easily. I think I could score more in history with use of graphic organizers, so I would like to continue using it.





Perails vangsit

BIOGRAPHY

Name Pema Wangzom

Date of Birth October 25, 1984

Place of Birth Samtse, Bhutan

Institution Attended Paro College of education, Bhutan

Bachelor of Education, 2011

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