

# THE APPLICATION OF THINK-PAIR-SHARE FOR SOCIAL STUDIES OF GRADE SIX BHUTANESE STUDENTS

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# THE APPLICATION OF THINK-PAIR-SHARE FOR SOCIAL STUDIES OF GRADE SIX BHUTANESE STUDENTS

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#### Abstract

This study aimed at investigating the effectiveness of Think-Pair-Share strategy on students' learning achievement and learning satisfaction of grade six Bhutanese students in social studies. A mixed method was used to examine the learning achievement using Think-Pair-Share and to find out their learning satisfaction in social studies. The target group consisting of 31 grade six students was selected to participate in this study as the research school had only one section of grade six. The instruments used to gather the quantitative and qualitative data were four lesson plans, achievement tests (pretest and posttest) and semi-structured interview, respectively. The quantitative data gathered through the pretest and the posttest were analyzed using sample paired t-test based on mean, SD and significant value. The qualitative data collected through semi-structured interview was analyzed using thematic analysis. The result of the pretest and the posttest score analysis showed a significant difference between the posttest mean ( $\bar{x} = 17.3$ ) and pretest mean ( $\bar{x} = 12$ ) with the mean difference of 5.3. The significant value for the group was .001, indicating a significant increase in the posttest scores as compared to the pretest. Similarly, the data analyzed from the semi-structured interview confirmed that students derived positive learning satisfaction. Hence, the TPS strategy supports learning social studies of grade six Bhutanese students.

(Total 111 pages)

Keywords: Social studies, Think-Pair-Share, learning achievement, Learning satisfaction, Grade six

Student's Signature...... Thesis advisor's Signature.....

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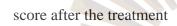


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# **ABBREVIATIONS**

Abbreviations	Meaning		
RCSC	Royal Civil Service Commission		
BCSEA	Bhutan Council for Examination and Assessment		
CTDD	Curriculum and Textbook Development Division		
NAPE	New Approach to Primary Education		
CAPSD	Curriculum and Professional Support Division		
DCRD	Department of Curriculum and Research Division		
MoE	Ministry of Education		
EMSSD	Education Monitoring Support Service Division		
IOC	Index of Item Objective Congruence		
KR	Kuder-Richardson		
CDEO	Chief District Education Officer		
REC	Royal Education Council		
RUB	Royal University of Bhutan		
TPS	Think- Pair-Share		
МКО	More Knowledgeable Others		
ZPD	Zone of Proximal Development		

## **CHAPTER 1**

## **INTRODUCTION**

This chapter discusses background of the study, research objectives; research questions; research hypothesis; scope and limitations of the study; operational definitions and the significance of the study.

## **1.1 BACKGROUND OF THE RESEARCH**

Bhutanese education system started with the establishment of the first school in Haa District in 1914 in the western part of Bhutan (Drukpa, 2013). However, the modern education system in Bhutan started only in the late 1961 after the launch of the Five-Year Plans. Initially there were only 11 schools, 90 teachers and 400 students across the kingdom for Bhutanese to avail modern education (Namgyel, 2011). The country's modern education system was adopted in the First Five-year Plan in 1961 and started expanding throughout the country during the reign of Jigme Dorji Wangchuck, the third king of Bhutan. (Takehiro, 2015).

Bhutanese social studies curriculum is an integration of history, geography and economics. It is taught from grade 4 to grade 6. From grade 7, the social studies is segregated into history and geography. It is further segregated into economics from grade 9. Therefore, teaching of social studies in the lower grades of grade 4 to 6 is a laying foundation of these three subjects.

Teaching in Bhutan had been a teacher-centered learning. It is more of a lecture method where the teacher uses the major chunk of the instructional time. The students were deprived from participating in any of the activities and share their opinions. Most of the activities were carried out by the teachers themselves whereby students were less involved in self-explorations, experimentations and presentations. Students merely listen, sit and observe the teaching. Traditional way of teaching is still carried out in most of the Bhutanese classrooms in teaching science, where class periods are lecture based and involves chalk and chalkboard, memorization, and spoon-feeding technique (Rabgay, 2012)The same technique is used in teaching social studies. However, the implementation of 21<sup>st</sup> century pedagogy in the schools in Bhutan will help eradicate the age-old existing teaching approach. As a result, one of the ways for teaching social studies could be to use the Think-Pair-Share to engage students in meaningful learning and increase their success rate. Think-pair-share will give opportunities to the students to share their opinions, make decisions and present their findings to the class. The application of traditional instructional strategies in Bhutanese teaching has led to low learning achievement of the students (Dolma, 2016). Therefore, adoption of a strategy, aiming to achieve excellence is very essential in making the subject concept more approachable to be taught (Boadu, 2015).

The social studies curriculum is founded on national goals and the educationally significant premise that children of this age should learn by exploring their own neighborhood or country first. In this way, this combined course has much strength as the following objectives and syllabi illustrate. Both history and geography miss crucial components of young people's education, therefore social studies fill in the gaps. There is still history or geographical bias in some topics. In any event, the entire curriculum demonstrates how the integration of history and geography, as well as religious and civil administration, has advanced social circumstances. All of this has an impact on being Bhutanese on a local, district, national, and global level scale.

The themes covered in the syllabus are not only relevant to Bhutan, but also to the rest of the world. This will aid in the instillation of love, loyalty and devotion to the king and the nation. The youngsters will develop a favorable attitude towards the true meaning of Bhutanese culture and tradition as a result of their deep awareness of the interplay between geography and history that has led to today's society. It will be formed a more

definite mindset based on internal ideals (REC, 2015). Social studies not only provide exposure to one's country and to the whole universe but also help to connect the natural and cultural environment to understand the value of existence (Dhandania, 2016).

Cooperative learning strategy is the present methodology that gives the learners active learning atmosphere ensuring them high success rate in a classroom (Gurbuz, Simsek, & Berber, 2015). Abass (2008) convinced that students have better thoughts and retention powers when they work cooperatively in groups than the students who work independently. Similarly, students learn to take part in decision making, to be accountable for what they are doing and ultimately become critical thinkers. According to Jack (2015), Cooperative learning creates a student-centered learning platform which helps to intensify their comprehension and perception. Moreover, Korkmaz and Tay (2016) recommended that cooperative learning strategy enhances the academic achievements in social studies.

Moreover, according to Johnson, D. and Johnson, R (1989) CL is also an alternative to competitive-individualistic frameworks and standards classroom teaching practices. They further claim that CL represents a paradigm shift from teacher-centered learning to more child-centered learning. Therefore, CL would be an alternative to traditional teaching in Bhutan. However, teachers should play a vital role in establishing cooperative learning experiences in their classroom settings. This includes structuring the groups and assigning roles to individual student so that they see what is expected out of them. It also applies teachers' understanding of their key role in promoting student collaborations during small group discussions. Thus, the help provided to the students to interact and work together not only empowers them, but also become accountable for their learning. Likewise, Johnson, D., Johnson, R., and Smith (2014) also state that CL involves the members of the group to contribute individually to maximize learning and achieve a common goal. Moreover, majority of the teachers observed remarkable performance level in their concerned subject after using CL strategies in the classrooms (Boardman, Moore, & Scornavacco, 2015).

Thus, the help provided to the students to interact and work together not only empowers students to learn from each other but also to learn to be accountable for the work they have to complete and also helps in decision making.

His Majesty the King of Bhutan accords highest priority to education. He has utmost faith and trust upon the teachers and the students of the country. His Majesty the King stressed that it is the responsibility of parents, policymakers and the government to provide the right direction, right books, and the right curriculum for teachers' continued commitments, and students' diligence and loyalty in upscaling the quality of education (Gelay, n.d.).

Bhutan's Honorable Minister of Education during the 17th Session of the National Council, 2016 declared that most students' performance in both basic and advanced academic skills was below grade level. He also added that they needed essential communication and critical thinking skills to come at par with their grade levels. Additionally, the Ministry of Education, Bhutan (2016) states that the lack of these primary skills impedes and delays students' achievement of the same level of competency for that grade.

Based on citation above, the level of educational performance of most Bhutanese students are low. It means that the performance level of social studies curriculum is low too. Social Studies Curriculum has vital roles in bringing positive change of the society satisfying the aspiration of Gross National Happiness – the developmental principle of Bhutan.

TPS is a cooperative learning (CL) strategy that may be applied to a range of classrooms and subjects (Lightner & Tomaswick, 2017). TPS was first created by Lyman in 1981. In this strategy, teacher asks a question, and students are encouraged to think for themselves before sharing their responses with the person sitting next to them. Finally, the groups present to the entire class what they discussed in their small groups. According to

Kagan (1989), this approach has several benefits. It gives opportunities to think on the posed question, allows time to express their thoughts, first with their partner and then to the whole class. Sometimes the students are also asked to write down the answers which makes them less passive, and keeps them more focused on the lessons. Further, it encourages them listen to their partner's answers and ideas carefully, making them accountable for their learning. The sharing of their answers and ideas to their partner also promotes basic social skills like teamwork, listening, sharing and taking turns, thereby making them more responsible and independent learners.

The influence of Think-Pair-Share creates more beneficial learning situation in which students within the group feel energized to take an interest concisely, especially when their colleagues are incorrect in relaying information. This learning experience highlights students' achievement as a result of the instructional style used (Sumekto, 2018). According to Bamiro (2015), TPS as a strategy has the capability of enhancing learning through discovery, which helps in the development of enhanced quality of cognitive skills, thereby boosting the problem-solving skills in the learners.

Moreover, many researchers like Aboagye (2012); Aydede and Matyar (2009); Mello and Less (2013); Mommani, Asiri, and Alatawi (2016) had done researches on the effectiveness of various active learning topics and subjects. The findings of these researches revealed that students learning through the active learning approach had higher learning achievements. It also helps to improve the retention power, self-esteem, students' engagement and social skills. Active learning engages learners in a productive learning process in or outside the classroom. (Prince, 2004) Therefore, active learning is engaging students and actively participating in a lesson (Carr, 2013)

Although the subject is given due importance in the Bhutanese Education system, yet teachers fail to retain students' interest in learning the subject. This could be attributed to the teachers' use of the lecture method to teach the subject. It was observed that a major chunk of the time is used up by the teachers in explaining the content rather than involving

the students in the lessons. Similarly, Sherab and Dorji (2013), state that most teachers still adopt the traditional way of teaching even after they were being trained to use cooperative learning strategies. They also cited a lack of sufficient teaching and learning resources as a factor that impeded the teaching and learning process. Additionally, they also attributed to the accessibility of enough teaching and learning. Similarly, from the researcher's experience of teaching social studies, everything is provided by the teacher and students are passive listeners. This has deterred students' understanding of the key concept thereby resulting in poor academic achievements. Therefore, a need to change the current methods of teaching is greatly felt in Bhutan. Furthermore, Trivedi, Kim, and Ghosh (2013) assert that teachers need to use effective pedagogies and strategies to engage students actively during the lesson.

In light of numerous prior studies on the effectiveness of Cooperative learning (CL), the researcher was excited to investigate the impact of Think-Pair-Share on Bhutanese grade six social studies learning achievement and satisfaction in social studies. There are plenty of studies on the impact of other (CL) strategies like Round Robin, Rally Robin, Rally Coach, Round table, Jigsaw and many more on learners' learning achievement and learning satisfaction. Despite this, no research has been conducted on how effective the TPS is in the teaching and learning of grade six social studies in Bhutanese schools. The research was stirred through the researcher's observation of the performance of grade six social studies deteriorating each year. The declining performance was also a serious matter that needs rethinking for all the social studies teachers in the school. The results obtained from the current school that the researcher teaches with the permission of the District Education Officer and school principal (For ethical concerns, their names are withheld). The study of Social Studies results from 2005–2018 is presented in the table below.

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Year	2015	2016	2017	2018
Average	68.8	60.5	56.3	56

The table above shows the declining performance in grade six social studies. There was a drastic fall from 68.8 to 60.5 between 2015 and 2016, and kept declining in the following years. From the results analysis above, it is clear that grade six social studies proficiency has declined dramatically since 2015. The disadvantage is that failing Social Studies in the primary school level reveals students' incapacity to cope with one another even in school due to a lack of awareness of the importance of social, cultural, and human-environmental ties. As a result, the researcher conducted research to determine the likely cause of students' underperformance in students in social studies at the sixth-grade level.

Therefore, the outcome of the study would positively empower teachers in implementing the strategies to improve the learning outcomes in social studies. Furthermore, it will make the classrooms lively which in turn leads to learners' motivation and satisfaction to attain success in learning social studies. The TPS would also serve as an alternative method for the teachers in Bhutan in teaching social studies.

## **1.2 RESEARCH OBJECTIVES**

1.2.1 To examine the learning achievement of Bhutanese students in grade six social studies using Think-Pair-Share.

1.2.2 To find out grade six Bhutanese students' learning satisfaction in social studies using Think-Pair-Share.

#### **1.3 RESEARCH QUESTIONS**

1.3.1 Would there be any improvement in grade six Bhutanese students' learning achievement in social studies after using Think-Pair-Share?

1.3.2 Would there be learning satisfaction of grade six Bhutanese students' after using Think-Pair-Share in social studies?

## **1.4 RESEARCH HYPOTHESES**

1.4.1 There would be an improvement of grade six Bhutanese students' learning achievement in social studies after using Think-Pair-Share.

1.4.2 There would be learning satisfaction of Bhutanese students in grade six after using Think-Pair-Share in learning social studies.

# **1.5 SCOPE OF THE STUDY**

#### 1.5.1 Location of the study

The research was carried out in one of the Bhutan's middle secondary schools in the Southern region. It is located in a semi urban area with fewer than 500 students enrolled.

#### **1.5.2** Participants

The research school had one class of grade six students for 2021 academic year. Thus, the researcher conducted the study with one target group, comprising 31 participants with mixed genders and abilities. The participants' age ranged from 11 to 13 years.

#### 1.5.3 Content of the Study

The research focused on the curriculum linked to geography in grade six social studies as developed by the Royal Education Council (REC, 2016). The topic was "WHERE DO PEOPLE LIVE?" It has been selected according to the yearly plan prepared by the subject teacher of the research school.

Table 1.2 Content of the Study

Week	Topics	Lesson	Cooperative	Number of
		Plans	Strategies	periods
		1	Think-Pair-Share	2
Week 1	Population and Population growth			
	Settlements	1	Think-Pair-Share	2
Week 2				
Week 3	Impact on the environment	1	Think-Pair-Share	2
	Waste Management	1	Think-Pair-Share	2
Week 4				
	Total	4		8

## 1.5.4Time Frame

The research was placed over four weeks in the academic year 202, from mid-February to Mid-March. Two periods in a week (45 minutes each) was taught to discover out the effectiveness of cooperative learning strategy (TPS) on students' learning achievement and learning satisfaction of Bhutanese students in social studies.

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# **1.6 CONCEPTUAL FRAMEWORK**

#### 1.6.1 Variables

For this study, two variables were identified which included a dependent variable and independent variables. The study employed the Think-Pair-Share application to look at two dependent variables in social studies: learning achievement and learning satisfaction.

#### **Independent Variable**

#### **Dependent Variables**

Instructional Approach

Use of Think-Pair-Share Learning satisfaction towards the Use of Think-Pair-Share

Figure 1.1 Independent and Dependent Variables

## **1.7 LIMITATIONS OF THE STUDY**

1.7.1 The sample was constrained to only 31 students which only represented a small portion of the whole, thus it cannot be generalized to the performance of grade six students of other schools in Bhutan.

1.7.2 The content of this study was limited to only one topic from grade six social studies textbook. Thus, the result of this study cannot be generalized and applied for other topics in the same subject as well as other subjects of grade six in Bhutan.

# **1.8 OPERATIONAL DEFINITIONS**

**Social studies** refer to an integrated subject of history, economics and geography which is taught to grade six Bhutanese students. It also includes interpersonal and group level skills including reflective thinking, valuing, communicating, participating, making decisions, appreciating, interpreting, analyzing and problem solving. Population and Population growth, Settlements, Impact on the Environment and Waste Management are only a few of the vast topics covered.

Think-Pair-Share is an active teaching and learning strategy that holds everyone responsible for learning the concepts taught. Each member of the group is asked to consider what they already know or have learned about the subject. After that, participants pair up with a partner to express their thoughts and perspective on the specified topic. The teacher asks a question and gives a few seconds to ponder about it alone. Individuals are then given time to share their points of view with the partner. The teacher develops the "Share" into a whole-class discussion once everyone has finished sharing their opinions.

Learning Achievement refers to students' achievement score in the pretest and posttest in Social studies of grade six on the topic, "WHERE DO PEOPLE LIVE?" It also refers to the TPS strategy's acquired capabilities, including analytical and problem-solving skills. The data in this regard was analyzed using students' achievement tests (pretest and posttest).

**Learning satisfaction** refers to students' positive attitude toward learning social studies because of implementing the Think-Pair-Share strategy. Using a semi structured method, the researcher ensured that students received learning pleasure from enjoyment, individual accountability, self-confidence, collaboration, and desire for learning.

**Grade six** students are the research participants of this study, studying in grade six at the research school during the academic year 2021.

## **1.9 SIGNIFICANCE OF THE STUDY**

1.9.1 Implementing Think-Pair-Share increased students' social studies learning outcome.

1.9.2 The study enhanced students' social studies learning satisfaction.

1.9.3 The finding of this study may assist and motivate teachers to employ Think-Pair-Share strategy as an alternative teaching strategy, resulting in a shift from teachercentered to student-centered learning.



## **CHAPTER 2**

#### LITERATURE REVIEW

The relevant literature review and the study's theoretical framework are presented in this chapter. It also contains an unambiguous explanation on the overview of the Bhutanese education system, Social studies Curriculum in Bhutan, Think-Pair-Share, Cooperative and active learning models, Advantages of corporative learning and Theories related to the strategy.

# 2.1 HISTORICAL OVERVIEW OF BHUTANESE EDUCATION SYSTEM

After the enthronement of the first King of Bhutan, Druk Gyalpo Ugyen Wangchuk, in 1907, the education system was established in 1914. Formal schools, on the other hand, were only established under the reign of the 2<sup>nd</sup> king of Bhutan, Jigme Wangchuck. The first school in the kingdom was established in Haa district. Later, the number increased to five in other regions of the country.

It was only in 1960s that the modern education system in Bhutan was introduced. Subjects like Dzongkha, arithmetic, English and Hindi were taught and later in 1962 the medium of instruction was changed from Hindi to English (Dorji, 2005, p. 11). Prior to the establishment of the modern education system in Bhutan, monastic education was the only kind of education available, and it was taught in Dzongkha, the country's official language.

Gradually, the number of modern schools grew to the point that Bhutan had roughly 59 schools spread over the country. Almost half of the schools belonged to private, while the other half belonged to the government. Following that, all private schools were converted to government schools in order to create a unified educational framework. The curriculum, on the other hand, was borrowed from India and taught by Indian teachers. As a result, Hindi, India's national language, has become one of the languages of teaching. Dzongkha was the only subject taught in Bhutan's native language.

Seven years of primary school and four years of high school make up the educational system. In 1994, there were 60,089 primary school students and 7,299 high school students enrolled. In 1999 pupil-teacher ratio in primary school was 42 to 1 (Education-Bhutan-system, n.d.). The Bhutanese instruction framework saw tremendous progress after the five-year development plan and the school expanded from 59 in 1961 to 193 in 1989. Similarly, the enrollment rate expanded year after year. Since the number of schools were expanding within the nation, the department of education was set up in Thimphu, the capital city of Bhutan to monitor the schools over the country.

The first education policy, as well as the first curriculum policy, were created by the Department of Education in 1776. The first curriculum policy ensured that the curriculum was designed in a way that was closely related with the country's culture and tradition. The report was redrafted in 1984, with a focus to make the school curriculum applicable to the requirements of the learner, society, and the nation as a whole. In 1986, a new organization called Curriculum and Textbook Development Division (CTDD) was instituted in the capital to handle curriculum issues, CTDD was responsible for the launch of the 'New Approach to Primary Education' (NAPE) which seeks a substantial curriculum overhaul for primary schools (PP to six). In its place, the Curriculum and Professional Support Division (CAPSD) was established. Since then, the CAPSD has taken a leading role in localizing the curriculum. Gradually, beginning in 2000, the curriculum of grades seven and eight was localized and by 2005, the CAPSD had completed the localization of the curriculum for grades nine through twelve (Rabgay, 2012)

The most recent change occurred in 2016, when the Ministry of Education (MoE) requested that the national curriculum be reframed as a major exercise titled "Re-thinking

Curriculum" as a major exercise at three levels: school, district and national, with the Royal Education Council (REC), Ministry of Education (MoE), BCSEA, and the Royal University of Bhutan participating (RUB). This was basically done with the hope of ministry to have a responsive curriculum to the 21<sup>st</sup> century learners (Ministry of Education & Royal Education Council, 2016).

## **2.2 SOCIAL STUDIES CURRICULUM IN BHUTAN**

Social studies curriculum in Bhutan was developed and then pilot tested in 28 primary and lower secondary schools in 1992. The second time edition was completed in 2003. Due to a lack of a fulltime curriculum officer in the former Curriculum and Professional Support Division (CAPSD) which was later renamed the Department of Curriculum Research and Development (DCRD) which was responsible for social studies, this subject was neglected republished numerous times without any revision. In late 2009, some of the facts and figures, grammar, sentence structures and even maps were updated and rectified.

With the shift in topographical area and with the progress towards democracy, which transformed government systems, the Department of curriculum and Research Development (DCRD) of Ministry of Education, as well as schools, have both expressed the urgent need to modify this subject immediately.

The revision of social studies from grade four to six was done in the month of February 2010 through the writer's workshop. People from the Bhutan Council for School Examinations and Assessment (BCSEA), Education Monitoring Support Service Division (EMSSD) and some experienced and well-versed social studies teachers were all involved in the revision process, in addition to Department of Curriculum and Research Development (DCRD) officials (REC, 2018).

Teaching of social studies in Bhutan starts from grade four to six. It is then segregated to history and geography from grade seven and further segregated into economics from grade nine. Social studies are envisioned to:

1) Offer information and understanding about Bhutan's historical and present socio cultural, religious, financial, political and environmental development; people and places from different areas of the world; and norms, ideas and opinions about people, culture, society and the environment.

2) Improve communication, collaboration, investigation, inquiry, and critical thinking skills.

3) Foster positive attitudes towards oneself and others, as well as respect and admiration for one's own and other's cultural heritage, environmental awareness and care, and love, loyalty and commitments to one's family, school, community and country.

# **2.3 TEACHING OF SOCIAL STUDIES**

Social studies are taught in primary schools from grade four to six in Bhutan. It is then segregated into history and geography for grade seven and eight. It is further segregated onto economics from grade nine. The sole purpose of teaching social studies is not merely academic but also encouraging moral values which help to preserve one's own culture and tradition (Agung, 2018). He also made it clear that social studies should be taught by engaging the students themselves to instill love for the subject, ultimately bringing improvement in their achievement score. According to Rashmi (2020) social studies help the students to understands the importance of the origin, learn their history and develop civic sense thereby equipping students with the knowledge and the skills to fit in a society and be a productive citizen not only of a community or a country but of the world.

## 2.4 COOPERATIVE LEARNING

Cooperative learning (CL) strategy is an instructive practice which encourages student socializing and learning across a variety of topic areas. It entails students cooperating to complete group projects or achieve a common goal that they would be unable to do their own (University of Queensland and Gillies, 2016). Cooperation Learning in education refers to a method of teaching that seeks to structure classroom activities.

To work together to achieve a common goal is cooperation. Each individual seeks results that are helpful to themselves and helpful to all other members in the group. Cooperative learning occurs when students work together in small groups to optimize their own and each other's learning (What is cooperative Learning? n.d.). CL, according to Johnson and Johnson (2018), is the utilization of small groups in the classrooms to get students to work collaboratively to improve individual and their peer's learning. The term itself tells that cooperation and active interaction is required to do certain work and in doing so, learning is enhanced. Kulshrestha and Mehta (2014) defines cooperative learning as a teaching and learning tactic in a small group comprising of various students with different abilities with wide backgrounds of the students and uses varieties of learning activities to make them understand the content.

Cooperative learning as a teaching and learning methodology involves students engaging together in small groups jointly to attain a shared objective (Johnson & Johnson, 2018; Hasmyati & Suwardi, 2018; Lewis, 2019) A CL strategy is a contemporary method of instruction that is utilized in the teaching area to improve the learning process. Unlike traditional learning method, cooperative learning method plays a very significant role in making education a promising and respected in the society. Cooperative learning strategy, according to Johnson et al. is a core instrument for meeting the difficulties and needs of the century: global interdependency, democratization twenty first cooperative, entrepreneurship, and interpersonal relationships. It takes into an account of individual learners and make them contribute their ideas in order to expand learning and obtain a common goal for the group. So, it is good for the students and even better for the teachers because it keeps the students cognitively active and helps in providing long-term support (Johnson & Johnson, 2017).

According to Cooper, Schinske & Tanner (2021), cooperative learning lets students to show a well understanding of the distributed assignments and heightens the pace of learning through partaking in a group. He also states that it equips students with the skills of helping others resulting in good interpersonal relationship.

## 2.5 THINK-PAIR-SHARE APPROACH

Think-Pair-Share is one of the cooperative structures comprising three steps where students privately think about a question, after which they discuss their outcomes with their partner. When students go through these three steps, they get chance to analyze what they know and what they need to know. Moreover, it fosters a very active learning with great deal of interaction amongst the students (Raba, 2017).

One specialty of this technique is the opportunity for the students have an interactive learning. Such interactive learning provides students with opportunities to promote active learning (Linsenmeyer, 2021).

In one of the researches conducted by Syafii (2018), it was found that the incorporation of Think-Pair-Share helped increase the active involvement of students in their own learning apart from improvement in their speaking abilities.

Researches done in other subject like English has also revealed that TPS helped students to be more confident in pairing, sharing their views and ideas and enhanced thinking abilities. It is further reported that this technique is reliable in fostering cooperation among people and boosting the confidence in sharing original ideas with others (Hudri & Irwandi, 2019). Such qualities and skills are considered cornerstone in Social Studies in Bhutan.

In schools, teaching and learning are shifting from teacher-centered to studentcentered learning. However, the disadvantages in the execution of student-centered learning are the need of engagement in classrooms (Mohamad et al., 2019). The purpose of this study is to see how effective 'Think-Pair-Share' at addressing concerns of student disengagement during the session.

TPS is a CL based educational strategy that aims to promote student involvement and individual accountability. TPS strategy improves students' communication abilities. It has positive effects as students are provided the platform to voice out, converse and take part actively in the activities. This will not only enhance their self-confidence but also active in the class. Moreover, they value each other's point of view (Raba, 2017).

Discussion is an essential part of a successful teaching and learning as it allows teachers to gain insights into the students understanding. Discussion carried out in a small group allows the students to express their understanding and constructing debates depending on the lesson content and instruction given in class. Further, this also helps students to build up their confidence in developing critical thinking and correct their own error. Confidence in learning is closely associated with cooperative learning where Think-Pair-Share can be applied by assisting students to conduct discussion after each student were given time to think about the answers (Sampsel, 2013). Then the next is to pair the student with a partner, share their answers and try to compare their answer with his/her pair. All the answers will be discussed with the other class members once they finish sharing with their partner. This activity brings improvement in students' participation and interaction in class. The Think-Pair-Share strategy inspires positive interdependence by boosting the students to learn and making sure that their friends learn as well (Johnson, D. & Johnson, R., 1999)

Think-Pair-Share is a multi-mode discussion cycle where learners get opportunities to listen to questions and or presentation, have time to reflect alone, talk in pairs, and then share their discussion outcomes with the rest of the class (McTighe & Lyman, 1988).

TPS is a cooperative learning which assists and develop Higher- Order Thinking. Critical, logical, metacognitive and creative thinking are all examples of high order thinking. It's activated when students come across unfamiliar issues, uncertainties and questions. Mainali (2012). TPS has its own set of advantages, such as the fact that students remain actively involved in their thinking, and that thought becomes more concentrated when debated with a partner (Pardeshi, 2016).

Think-Pair-Share template

Think- Read the following questions: Reflect on the given question and write down the views to address the questions:

Pair- Talk to friend about your ideas. Examine the above-mentioned thoughts, which your friend also jotted down. Then, put down the following ideas that your partner had but you didn't:

Share- Examine all of your suggestions and circle the one you believe is the most essential. This suggestion will be shared by one of you with the entire group. As you listen to the group's ideas, make a note of the ones you like:

The teacher asks a question about an important idea, concept, or skill to finish Think-Pair-Share. After that, each student thinks about the question and individually and writes down what they have learnt about the topic. Then the students share their opinion with the paired partner. The partner writes down the ideas that he/she did not have. When everyone in the group has done sharing, the teacher widens the conversation to the entire class. As we listen to the group's suggestions, each student makes a list of the one they like. Strategic phases of Think – Pair – Share

#### Thinking Phase

When teacher asks a question that encourages students to think or an issue associated to the lesson's topic that requires a solution, Think-Pair-Share technique will begin. The teacher will then solve the problems individually. The teacher will give them a specified amount of time to consider, which will be determined based on the students' knowledge, the type of question and the degree of complexity.

#### Pairing Phase

The teacher instructs the students to form pairs and debate their thoughts on the given topic. Each student will talk with his or her partner and try to persuade him/her to agree with their points of view. Also, share your thoughts and ideas in order to come up with a common solution.

## Sharing Phase

After that, the teacher will allow each pair of students to participate in a sharing exercise with a different pair of students. This will save time and exertion on the teacher. This will be taken after by the whole class discussion to make sure that students have understood well and noted all the points correctly. Students will also note down the new points that they liked.

## 2.6 ADVANATGE OF THINK-PAIR-SHARE

#### 2.6.1 Social Skills

The need of social skills for a few school going students have been identified as a contributing factor for the students' misbehavior in the school. Research recommends that cooperative learning contributes to the cultivating of social skills in students of all ages. Social interaction became noticeably more diverse and students worked in the assigned groups, even when they are not very comfortable with some of the members in the group. With this very strategy, the interpersonal relationships of the students who are not very social became more open both with their friends and with the teachers. There were also positive changes in student behavior (Jordan & Métais, 1997). Cooperative learning enables students to interact vigorously and learn from one another not just in studies but also the values, which are the key in the society (Jack, 2015). As learners, they share their ideas, opinions, give and get positive feedbacks among their friends. Finally, they come to a common consensus after listening to each and every member in the group which promotes skills like communication, decision making, and leadership. They also learn to accept differences based on ability, ethnicity, background, and gender. This will help to develop skills like acceptance, respect and trust building.

# 2.6.2 Higher Achievement van Rangsit

There are many cooperative learning strategies. All those cooperative learning strategies tell similar ideas that the students learn more as they work together and are accountable for one another's learning as well as their own (Slavin, 2013). Think-Pair-Share fosters a student-centered learning environment where students can improve their comprehension and reasoning skills. It also helps improve the accuracy of their long-term retention, and helps students to develop critical thinking skills (Jack, 2015). The students in the group works together discussing and giving their own opinions will help them to improve their retention power.

#### 2.6.3 Improve Inter-Personal Relationship

Interpersonal abilities such as communication, cooperation, compassion, emotion regulation, impulse control and social initiation are very important as it help us engage, interact, and build relationships with different people. They are necessary in order to succeed in one's life. It can be in the school, at home, and at work (Woods, n.d.). Students in their own groups learn how to be responsible for their own learning and how to extend their responsibility for their friends learning. These behaviors helped in empowering social and interpersonal connections among all students. The relationship among the different learners of diverse ages and from diverse cultural or ethnic backgrounds and social class were improved (Sharan, 2018). Think-Pair-Share helps increase the students' capability of conducting better interpersonal conversation and also encourage students' class involvement.

#### **2.6.4 Develop Communication Skills**

There are different techniques to develop communicative skills. Speaking is very essential part of everyday life. It is a talent that everyone should possess it serves as a network for individuals to interact, communicate, discuss, and share their own thoughts. The interactive technique of Think-Pair-Share (TPS) might help you enhance your communication skills. Peer engagement is the key component of this strategy. Students are expected to talk and listen to one another. It leads to active participation. It also allows children to consider, listen to, share, and reflect on their own ideas as well as those of their peers (Raba, 2017, p.13).

#### **2.6.5 Equal Participation**

Vygotsky (1978), states that taking an active role within the group makes learner develop social expertise and plays a vital role in socializing the learner. He supports guided

participation, where learners could learn through active participation with teammates or members who are more experienced than themselves.

This strategy helps each learner within the group and provides equal share of opportunity. Incorporating one or more Think-Pair-Share activities in lesson has the potential to promote equality in classroom in variety of ways: Individual students have time to verbalize their ideas about the concepts; promotes assessment of thoughts among peers; changes the classroom environment to a more active one, as a result of their participation; and promote a collaborative, rather than competitive culture in the class (Tanner, 2013).

Traditional way of teaching is not appropriate for the engagement of the students of the 21<sup>st</sup> century learners and does not work well with them. 21<sup>st</sup> century learners need to be engaged in doing the works themselves as they are active learners (Guthrie & Carlin, 2004). Therefore, the application of Think-Pair-Share is one of the ways to keep them engaged and turn them into lifelong learners.

## **2.7 LEARNING THEORIES**

Psychologists and educationists have come up with many influential learning theories. Different people learn, think, behave and perceive things differently. This section discusses the importance of learning theories which are central to the Think-Pair-Share. Social Learning Theories, Constructivism, and Cooperative Learning theories are some of the theories that supports Think-Pair-Share. The brief explanations on learning theories are given below.

#### 2.7.1 Social Learning Theories

2.7.1.1 Bandura's Social Learning Theory

According to Culatta (2015), Albert Bandura explored social learning theory and emphasized the need of seeing and modeling others' behaviors, attitudes, and emotional reactions. According to Cherry (2017) social learning theory is based on three fundamental concepts. To begin with, individual can learn by observing others. Another notion is that mental states are vital in the learning process. Finally, this idea claims that learning does not always result in a change in behavior. When students connect more with their classmates, teachers and other specialists, they learn more.

Generally, In TPS strategy, children are made to interact and discuss about the concepts and ideas in pairs. In the process of interaction children observe and imitate from friends whereby learning in children is enhanced to a greater height. Social learning can be enhanced through TPS strategy because interaction is the key element of this strategy. TPS strategy not only allows students to learn from one another but also stimulates constructive transformation mirrored in enriched behavioral and educational outcomes (Jackson, 2017).

2.7.1.2 Vygotsky's Social Learning Theories

Lev Vygotsky's social learning theories make us know how people learn from each-other in social context and tell us how we as a teacher construct active learning communities (Neff, n.d.). Lev Vygotsky first stated that we learned through our interactions with others. Similarly, in educational settings, learning takes place when students interact with their peers, teachers, texts, and other experts. Teachers then create conducive learning environment that fosters students to interact with each other through discussions, collaboration, and feedback. Teachers play vital role of facilitator, creating the environment where collaborative learning can occur.

Vygotsky's social learning theory also believes that learning happens with the help of More Knowledgeable Others (MKO), who has superior understanding or ability level higher than the learner (David, 2014). Similarly, Vygotsky's Zone of Proximal Development (ZPD) is one principle that alludes to the disparity between what a learner can do when deprived of help and what he or she can fulfill with guidance and encouragement from a skilled partner (McLeod, 2018). The theory further states that when a student is in the ZPD for a task, providing the needed support will give the students enough of a "boost" to complete the desired activity. According to Vygotsky, learning happens in this zone (David, 2014). The term "Scaffolding" refers to a variety of instructional support given to learners during the learning process to achieve the learning goals and aid in mastery of tasks. Teachers use this instructional support by building on students' experiences and previous knowledge as they are learning new skills. But these supports are gradually removed as students develop ability to do self-learning and teacher gradually shifts more responsibility over the learning process to the students (Alber, 2014; Burns & Joyce, 2015; Vanderbilt University, 2018). By the same token, scaffolding is associated with cooperative learning because Think-Pair-Share can be mastered only if proper guidance and scaffolding is given. The guidance here refers to the teacher's support that the teacher provides to students while doing the activity. Once the students are familiar with strategy, teacher can make themselves work independently. Therefore, the use of TPS promotes working collaboratively by helping each other and learning from one another. ้ลยรังสิต Rany

#### 2.7.2 Constructivist Learning

Piaget (1980) states that an individual construct new knowledge and derives meaning based upon their daily experiences of their lives. However, the world views constructivism as a model that takes into account of an active learning process, constructive process. The learner is an information creator. They learn to construct or create their own ideas and build new concepts from the experiences that they experience. Constructivist learning is inter-linked with connecting with the prior knowledge (Ultanir, 2012).

Constructivism is a powerful educational theory that is especially relevant to social studies teaching and learning.

Learners create new information from their own incidents and experiences through accommodation and assimilation (Piaget, 1980). Learning is defined by constructivism as a process in which students actively generate innovative ideas and concepts based on their past knowledge and new information. The teacher's role remains that of a facilitator, encouraging and motivating students to explore and produce knowledge and ideology within the formulated or set framework. It emphasizes on the importance of guiding and supporting students to link with prior knowledge and experiences as new information is presented to them, so that they can clarify and dispense with their misunderstanding and build a correct understanding of the topic in social studies. Constructivist learning can be encouraged by using the Think-Pair-Share strategy, which addresses the need for and participation of each individual in the process of generating knowledge from their experiences. When children are taught using TPS strategy, children get ample time to build on their new experiences to understand and clear out misconception of their ideas.

## 2.8 Related Research

Several studies have been done to determine the effectiveness of Think-Pair-Share strategy in classrooms. This section of the work will look at the work of researchers who have focused their research on the effects of TPS.

Furthermore, according to Sampsel (2013), the Think-Pair-Share cooperative learning strategy enhanced students' involvement, increased the amount lengthy explanations given by students, and boosted students' comfort and confidence while participating to class discussion. The research was supported by the findings of (Sapsuha, 2013) which showed that Think-Pair-Share helped the shy students to talk to each other. Moreover, it is also a fun learning and lead to better learning.

Anon (2013) did a study to implement TPS in an Associate Degree Nursing Curriculum and discovered that TPS changed the classroom ambiance from a peaceful and formal environment with the teacher speaking in the classroom primarily to an open forum with all students engaging. The intensity created by the student interaction was overwhelming during class, as students supported their responses when working in pairs. After employing the TPS, an instructional delivery strategy with 90% of students enrolled, 90% (n=81) scored level 2 or higher on the examination.

Following were some of the remarks made by students at the end of the course:

1) The Think-Pair-Share method worked really well.

2) I wish this could be utilized by any teacher to reinforce curriculum and assist students in grasping challenging content.

3) The Think-Pair-Share strategy was quite successful. Other teachers should be required to follow it. It has facilitated centered, coherent research and a clear understanding of what will be evaluated.

4) Because I did not want to look stupid in front of my peers, Think-Pair-Share taught me to come prepared.

5) I did not like having extra work at first, but it did help me to learn the materials. It is recommended that all teachers use it.

The implementation of Think-Pair-Share in the mental health training showed improvement in overall student classroom involvement and skill evaluation performance. Students' preparation for class and trust in one another improved as they collaborated and celebrated their accomplishments (Anon, 2013).

Pardeshi (2016) did a study titled "Improving the student performance using Think-Pair-Share for Operating System." As per this article, the Think-Pair-Share allows learners to think about certain issue, express their individual opinions, then share those opinions with a partner. The TPS activity engages all students in the teaching-learning process and make class more engaging. This learning strategy encourages students to participate in class by allowing for a high level of student reaction. According to feedback analysis, 98 percent students took active part in the TPS activity, 94 percent got involved in group discussion with their neighbor, 92 percent of students felt that the activity helped their group to stay on task, and 75 percent of students felt that the activity helped the understand the concepts about scheduling algorithm. On top of that students agree that the activity is a good technique for helping them learn the content. TPS activity can be appropriate for any subject. It is critical to create an engaged classroom environment in order for students to succeed. The Think-Pair-Share activity was really beneficial in resolving course related doubts.

Raba (2017) found that the Think-Pair-Share (TPS) performed a positive role in improving students' oral communication abilities in EFL classrooms in a study titled "The Influence of Think-Pair-Share (TPS) on Improving Students' Oral Communication Skills in EFL Classrooms." It also encouraged students to work together in the classroom and increased their enthusiasm to study more. Through discussion with their friends, students were involved in their own learning. This assisted them in self-training and critical thinking development.

Using Think- Pair- Share to Increase Students' Active Involvement and improve their Speaking Ability was undertaken by Muhammad Lukman Syafii (2018). His goal was to find out 1) how much Think-Pair-Share strategy could help students at Cokroaminoto Palopo University enhance their speaking abilities, and 2) how students felt about using Think-Pair-Share in speaking activities. The research was carried out using a quasiexperimental design. The experiment had two groups: an experimental and a control group. The experimental group received treatment using the application of Think-Pair-Share, while the control group received traditional way of teaching. The participants who were taught and using the application of Think-Pair-Share strategy did better than those who were taught by traditional method of teaching.

Moreover, the results of the questionnaire analysis showed that using Think-Pair-Share improved students' speaking abilities significantly. The majority of them had a favorable opinion or response to the use of TPS in speaking activities.

Yusuf, Owede, and Bello (2018) discovered that Think-Pair-Share had a substantial impact on teaching technique for senior high school students' Civic Education Achievement in Bayelsa State, Nigeria. By the same token, students who were taught utilizing the application of Think-Pair-Share strategy performed better than those who were taught using traditional way of teaching. This could be a sign that students taught using Think-Pair-Share had impact on the way students cooperated with others (social connections) and interdependency amongst classmates. This is an essential benefit of this strategy, as well as the fact that they were provided with sufficient time to think independently about a concept before sharing their ideas and with their peers.

Another research conducted by Carss (n.d.). The research entitled "The Effects of Using Think-Pair-Share during Guided Reading Lessons" The use of TPS helped the teacher to encourage and reinforce the connection between the language and thinking for the students, according to the study. Students have valued the time given to think, and it has enabled them to express their opinions on the strategy's good benefits.

It was also noted that the benefits of adopting TPS were centered on this cooperation, rather than the function of the teacher, as indicated by the students and confirmed by the teacher. This pairing has been proven to aid in the growth of thought and the generation of new information.

Students were expected to put their energy together in pairs to practice their contributions and complete the task requirements, demonstrating positive interdependence. Everyone took responsibility for sharing their ideas with their partner as well as presenting to the wider group. When students got involved in activities in pairs rather than in groups, the level of accountability increased.

Rohim and Umam (2019) published a comparison research titled "The Effect of Problem-Posing and Think-Pair-Share Learning Models on Students' Mathematical Problem-Solving Skills and Mathematical Communication Skills." Using a pretest and posttest, they contrasted and analyzed the efficacy of problem-posing and Think-Pair-Share cooperatives' learning models on mathematical problem-solving skills and mathematical communication skills. It was a quasi-experimental research with an experimental design. Both problem-posing and Think-Pair-Share interventions were found to be quite successful in improving students' arithmetic abilities. Problem-posing, on the other hand, is found to be less effective than Think-Pair-Share.

Furthermore, Think-Pair-Share cooperative learning strategy has been demonstrated to enable students to improve their abilities in solving mathematical problems and communication. The significant findings also show that the Think-Pair-Share as strategy is more impactful than the problem-posing learning strategy, as evidenced by standard mathematical achievement, mathematical problem-solving abilities, and mathematical communication abilities.

## **CHAPTER 3**

## **RESEARCH METHODOLOGY**

This methodology and instruments used to respond to the research questions posed in chapter 1 are described in this chapter. The description includes the research design, the population and sample used for the study, the experiment procedures, the treatment procedures, data collection method, the instruments used for data collection and method used to maintain validity and reliability of the instruments.

## **3.1 RESEARCH DESIGN**

To answer the two research questions stated in chapter 1, the researcher utilized mixed methodology incorporating both aspects of qualitative and quantitative method to collect the data. Food Rise Resource Center (n.d.) claims that mixed methods help the researcher to get in-depth of ideas and support, while offsetting the weaknesses inherent to using each approach by itself. Triangulation allows researcher to learn aspects of a phenomenon or issues more accurately by impending it from different areas. This type of study (Mixed method) supports the validity in the findings, contribute towards knowledge conception, and broaden awareness of the occurrence than studies comparing to other type of study (McKim, 2017). Further, mixed method of research study involves collecting, examining and interpreting both quantitative and qualitative information in one or many studies that analyze the same basic phenomenon (Cameron & Sankaran, 2015).

The aim of this research was to see how the application of Think-Pair-Share (an independent variable) can help grade six students improve their learning achievement and learning satisfaction (dependent variables) in social studies. The study was quasi-experimental study. Jaikumar (2015) adds that Quasi-experimental research may be more

practicable and applicable as it is not restricted with the time and logistical constraints related like other designs. The study was directed with one group pretest-posttest quasi-experimental design to gather quantitative and qualitative data from the sample group. The employment of pretest-posttest intervention was to collect quantitative data and to determine students' learning achievement in social studies of grade six Bhutanese students. Then, a semi-structured interview was administered to obtain qualitative data to find students' learning satisfaction after using the application of Think-Pair-Share strategy. Figure 3.1 shown below describes the research design of the study.

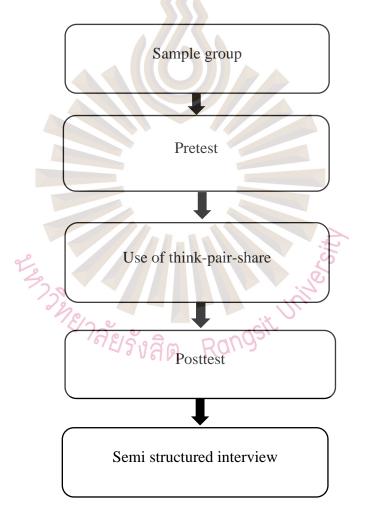


Figure 3.1 shows the detailed research design for the study.

The sample group was 31 students of grade six. They were treated by employing TPS in learning social studies classes. They were given treated with the strategy, and the pretest was administered. Following the pretest, the sample group was given four weeks of treatment using TPS. When the treatment was finished, the posttest was given with the same questions as the pre-test.

After the posttest was completed, the target group was invited to meet with the researcher for a face to face interview to assess their learning satisfaction on the application of Think-Pair-Share learning strategy. The information gathered from the learning achievement tests and the semi-structured interview questions were then analyzed.

## **3.2 LOCATION OF THE STUDY**

This research was conducted in one of the Bhutanese Middle Secondary Schools in Chhukha district. It is located in the Southern part of the country.

## **3.3 POPULATION OF THE STUDY**

## 3.3.1 Target group/ Research participants

The research school had only one class of grade six students for the 2021 Academic Year. The target group comprised of 31 Bhutanese grade six students selected for the study. Table 3.1 will provide the detail of the research participants in terms of genders and age.

Table 3.1 Demographic profile of the research participants

Gender	Male	Female	Total
Number of students	16	15	31
Age group	10-12	10-12	

## **3.4 RESEARCH INSTRUMENTS**

The researcher adopted a mixed method design for this research. The information was gathered from the learning achievement tests which were used for the sample group before and after the treatment, while the semi-structured interview was administered with the sample group after the posttest.

#### **3.4.1 Intervention Instrument**

The instruments used for collection of data are a very important part of the research process (Bastos et al., 2014). The researcher's lesson plans served as an intervention instrument in this study. It made it easier for the researcher to educate the students about the appication of Think-Pair-Share strategy because the lesson plans incorporated all of the aspects of the strategy (TPS)

3.4.1.1 Lesson plans

Lesson plans are important as it supports teacher and does not allow the class to drift away from the subject (Jones, 2018). The researcher prepared 4 lesson plans of 90 minutes each. The lesson plans were prepared incorporating Think-Pair-Share to teach the topic 'WHERE DO PEOPLE LIVE?' (Refer lesson plan in Appendix H). Research participants were familiarized with the steps and process of using TPS strategy before they are taught the lessons using the intervention. Each lesson was taught for duration 90 minutes. The researcher taught twice a week and the study lasted for four weeks.

#### **3.4.2 Mixed method collection instruments**

Mixed-Method collection instruments consisted of the instruments for quantitative and qualitative methods of research that was used for collecting information for the research. In the quantitative method, the instrument used was the learning achievement tests, which researcher used to study to what extent the children could improve their learning achievement with the inclusion of Think-Pair-Share in learning social studies.

The data collection instrument for the qualitative method of research was semistructured interview questions, which the researcher utilized to determine the students' learning satisfaction with of Think-Pair-Share in learning social studies.

3.4.2.1 Learning achievement tests

The learning achievement tests were developed based on the learning outcomes outlined in the Royal Education Council's (REC) curriculum framework. They were also prepared as per the Bhutan Council for School Examination Assessment's (BCSEA) guidelines. The test consisted of five multiple choice answer questions worth five marks and 15 marks short answer type questions for the pretest and the posttest on the topic "WHERE DO PEOPLE LIVE?" (Refer learning achievement test questions in Appendix D). The learning achievement test was intended to assess the differences between participants' pretest and posttest learning achievement scores and then determine the level of improvement after employing the intervention.

The researcher's pretest was conducted at the beginning of the study before the treatment and the posttest with the same questions as the pretest was conducted at the end after the treatment to compare the learning achievement. To maintain uniformity in evaluation, the same test items were used for pre and post evaluation.

3.4.2.2 Semi-structured interview

After the treatment, each student had a face to face interview with the researcher to determine their learning satisfaction with the use of Think-Pair-Share in learning social studies. The semi-structured interview consisted of 6 questions which the researcher framed. (Refer semi-structured questions in Appendix H)

## **3.5 VALIDITY AND RELIABILITY OF RESEARCH INSTRUMENTS**

#### 3.5.1 Validity

IOC  $= \sum_{r=1}^{r}$ 

Validity is defined as the degree to which a definition is accurately measured in a quantitative analysis (Heale & Twycross, 2015). The validity of lesson plans, test items and semi-structured interview questions were validated by a professor from Thailand and by two experienced teachers with a master's degree from two different schools in the southern part of Bhutan. (Refer Appendix K) The validity of the instruments was carried out using the Item Objective Congruency Index (IOC). Item Objective Congruence of the tools was to make sure that all items were in line with the learning objectives.

Congruence (IOC) by Turner and Carlson (2003). The IOC result index is a number that ranges from -1 to +1. The rating +1 on IOC refers to the accuracy of instruments to the stated objectives, however rating 0 shows that items are good, but not convincing enough to meet the stated objectives. Further, the rating -1 ensures that items are not clearly congruent in meeting the objectives stated. The researcher adapted the given formula to compute IOC.

## Where r = sum of the scores of individual experts n = number of experts Romes n = number of experts

To ensure their congruence to the stated research objectives, the aforementioned three experts validated my instruments. IOC validation was carried out for all the items pertaining to the study. The researcher planned four lessons as the intervention tools. To guarantee their congruence to the stated research objectives, IOC validation was done by the aforementioned three experts. IOC was calculated using the formula: IOC  $\sum = \frac{r}{n}$ , where 'r' represents the score of individual expert ratings and 'n' represents the number of experts. The accuracy of test items with a value between 0.67 and 1.00 was regarded satisfactory,

however values below 0.67 indicates that items should be rewritten based on the expert's suggestions and feedbacks.

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 was rated +1 and similarly the learning achievement test questions were rated +1 (see Appendix E for Validity Report by Experts for Learning Achievement Test and Appendix G for Validity Report by Experts for Lesson Plans). The semi-structured questions were also rated +1 by all the three experts. (See Appendix I for Validity Report of semi-structured questions by Experts)

## **3.5.2 Reliability**

Reliability of an instrument, is the second indicator of consistency in a quantitative analysis. In other words, the degree to which a research technique consistently produces the same results when applied to the same situation (Heale & Twycross, 2015).

For the affirmation of the reliability of the learning achievement test questions, a pilot test consisting of 20 marks question was conducted with another section of grade seven students of the same school. Kuder-Richardson equation (KR-20) was utilized for finding out the learning achievement test's reliability coefficient. The KR-20 coefficient for the instruments should be equal to or greater than 0.70 if the instruments has to be reliable. The KR-20 coefficient was 0.808 which was greater than 0.70 which confirmed that the learning outcome test was reliable. (Refer Appendix K) To calculate the reliability, Cronbach's alpha ( $\alpha$ ) was computed using a computer program.

## **3.6 DATA COLLECTION PROCEDURES**

#### **3.6.1 Ethical Consideration**

Ethics is a basis for conducting a research. Society has become delicate to the idea that the rights of individual ought to be secured, especially those who are vulnerable.

Data collection began only after all the necessary permissions and approvals were received. The researcher sought approvals from Ministry of Education in Bhutan, Chief District Education Officer (CDEO), Principal, and subject teacher concerned of the research school before the actual data collection was carried out (Refer Appendix A). Moreover, parents of the participants were notified and a consent was sought since the participants were below the legal age (Refer Appendix M).

## **3.6.2** Anonymity of the Participants

Data privacy is an essential factor that is anticipated by the participants of every study (Oliver et al., 2011). The anonymity and confidentiality of the participants' opinions and learning achievement records was corded through number system. Research participants were numbered student 1(std 1), student 2 (std 2), and so on instead of using their names to ensure confidentiality.

## **3.7 DATA COLLECTION STEPS**

#### **3.7.1 Reliability Test**

The data collection procedure began with the reliability test of the research instruments. This step was crucial to ensure the reliability of the research instruments before

implementing them with the sample group. Therefore, the reliability test was conducted with another grade in the same research school.

### 3.7.2 Pretest

For quantitative data, the researcher administered a pretest to the sample group. For the pretest, the researcher gave them a couple of days to read on the same content which was to be tested. There were five multiple-choice questions with one score each and eight short answer questions with varying levels of difficulty. The scores for each question were provided based on the level of questions.

### 3.7.3 Use of Think-Pair-Share

Think-Pair-Share strategy as was used as an intervention to teach the chosen content. A total of four lesson plans of 90 minutes each were prepared and taught two sessions per week over four weeks. Before conducting the lessons, students were briefed on the steps for carrying out activities using the strategy. Also, every time Think-Pair-Share strategy was used, students were given 'think time' based on the questions asked. After that, they were asked to form pairs to discuss their answers and finally, they shared their common consensus with the whole class.

#### **3.7.4 Posttest**

After teaching using Think-Pair-Share strategy for four weeks, a posttest was conducted using the same set of questions used for the pretest. This was mainly done to compare the pretest and posttest scores to assess and confirm the effectiveness of the intervention strategy.

#### 3.7.5 Semi-structured interview

Qualitative data was collected and analyzed through the interpretation and categorization of themes. To get an in-depth understanding of the learning satisfaction of the students employing TPS, a face-to-face semi-structured interview was administered. A total of six questions were asked to the interviewees to gather rich data. The participants' responses were audio-recorded, transcribed and categorized under different themes.

## **3.8 DATA ANALYSIS**

The data analysis was carried out in two areas:

1) Test score analysis to find the learning achievement of grade six students in social studies.

2) Thematic analysis of the semi-structured interview questions through coding to find out how satisfied grade six students are with the application of the Think-Pair-Share learning strategy in social studies.

## 3.8.1 Test score analysis

A comparative statistical analysis of pretest and posttest within the sample group was us done using paired sample t-test in order to compare and analyze the degree of students' improvement in learning social studies through the use of the application Think-Pair-Share learning strategy on the learning achievement of grade six students. The inferential statistics t-test with P<0.05 level of significance, mean, and standard deviation were used to interpret the results.

#### 3.8.2 Qualitative Data Analysis

To acquire qualitative data, a semi structured interview was conducted. It was to see the learning satisfaction of the students in social studies using the application of Think-Pair-Share. The main idea of the qualitative data analysis is to bring order and meaning to the data collected. Lochmiller and Lester (2017). Text data can be in verbal, print or in electronics obtained using different qualitative data collection instruments. Accordingly, the researcher engaged in thematic analysis to analyze the qualitative data obtained from the semi-structured interview



## **CHAPTER 4**

## **RESULTS OF DATA ANALYSIS**

Chapter four contains a presentation and the interpretation of the study's findings. The data analysis was carried out in two parts. The first part was based on the results of learning achievement test which answered the first research question. The data was gathered through pretest and posttest. The other part was based on the semi-structured interview which was analyzed through content analysis of which findings were used to respond to Research Question Two.

## **4.1 ANALYSIS OF ACHIEVEMENT TEST SCORE**

The scores of the pretest and posttest were analyzed to determine the effectiveness of Think-Pair-Share in improving students' social studies learning achievement. The pretest and posttest comprising of 5 multiple choice questions and 8 short answer questions were administered with 31 grade six Bhutanese students before and after the implementation of TPS Strategy to answer the first question "would there be any improvement in grade six Bhutanese students' learning achievement in social studies after using Think-Pair-Share?"

The comparison between the pretest and posttest scores of the sample group was carried out to determine the effectiveness of TPS in Social studies class. The first research question of the study was: would there be any improvement in grade six Bhutanese students' learning achievement in social studies after using Think-Pair-Share? To obtain the answer for the first research question, the pretest and posttest were administered to the sample group. A comparative statistical analysis of the pretest and posttest scores were carried out using paired sample t-test based on mean, standard deviation and significant value.

#### **4.1.1 Pretest- Posttest Comparison**

Table 4.1 Comparison between pretest and posttest within the sample group Significance level (p): < 0.05- significant

Group	Pretest		Posttest		Mean	Т	P-
					Difference		Value
Sample	$\overline{\mathbf{X}}$	SD	X	SD		10.776	0.001
Group							
	12	4.203	17.3	2.486	17.3-12 =		
				$\mathbf{6}$	5.3		

Table 4.1 displays the result of the descriptive statistical analysis for the target group's achievement test scores. The mean score for the pretest and the posttest were 12.0 and 17.3 respectively. It was evident from the results presented in Table 4.1 that the posttest mean score ( $\bar{x} = 17.3$ ) of the group was higher than that of pretest mean score ( $\bar{x} = 12.0$ ) with a mean difference of 5.3. The greater mean score in the posttest indicated the efficiency of Think-Pair-Share. This clearly displayed the effectiveness on the use of Think-Pair-Share to improve the students' learning achievement. A paired sample t-test shown in Table 4.1 signified the significance P value of .001 which indicated the significance of the test. The standard deviation of the pretest and posttest were 4.203 and 2.486 respectively as shown in the table 4.1.

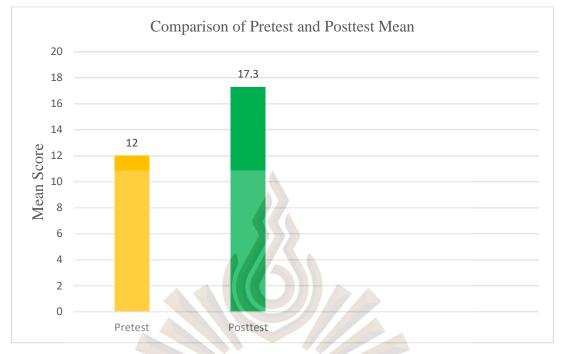


Figure 4.1 Comparison of pretest and posttest within the group

The scores of the posttest were comparatively higher which clearly indicated that before the treatment, their learning achievement was lower compared to the learning achievement after the treatment. The mean of the posttest was higher than that of the pretest as shown in Figure 4.1. All those scores in comparison confirmed the effectiveness of the Think-Pair-Share to enhance learning achievements of Bhutanese grade six students in social studies. Therefore, providing positive response to the first research question and ascertaining the research objective one and hypothesis one accordingly.

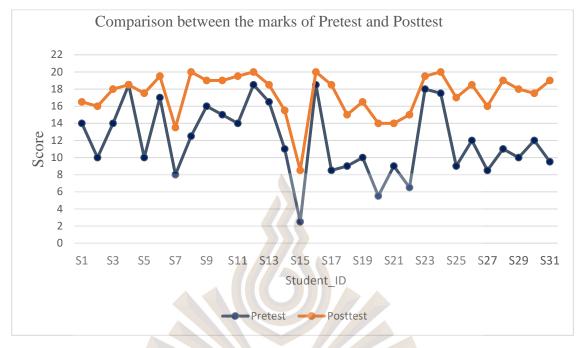


Figure 4.2 individual student's performance in pretest and posttest

The pretest scores are represented by the blue line above, while the posttest scores are represented by the orange line. The scores range varies from 2.5 to 18.5 in the pretest and 8.5 to 20 during the posttest. This indicated that there was a drastic improvement in the learning achievement of the students after the treatment. The orange line which stands above the blue line is a clear indication of individual student performing better in posttest comparing to the results of the pretest. All the students had their posttest scores improved except one that remained tie at 18.5. This confirms that the treatment worked well.

Table 4.2 Improvement	scores of the individu	al students after th	ne treatment

Students	Pretest score	Posttest score	Improvement score
S1	14	16.5	2.5
S2	10	16	6
S3	14	18	4
S4	18.5	18.5	0

Students	Pretest score	Posttest score	Improvement score
S5	10	17.5	7.5
S6	17	19.5	2.5
S7	8	13.5	5.5
S8	12.5	19	6.5
S9	16	19	3
S10	15	19	4
S11	14	19.5	5.5
S12	18.5	19	0.5
S13	16.5	18.5	2.5
S14	11	15.5	4.5
S15	2.5	8.5	6
S16	18.5	20	1.5
S17	8.5	18.5	10
S18	9	15	6
S19	10	16.5	6.5
S20	3 5.5	14	8.5
S21	290,	14 11	5
S22	6.57 7615 92	15 ngsit	8.5
\$23	18	19.5	1.5
S24	17.5	20	2.5
S25	9	17	8
S26	12	18.5	6.5
S27	8.5	16	7.5
S28	11	19	8
S29	10	18	8
S30	12	17.5	5.5
S31	9.5	19	9.5

Table 4.2 Improvement scores of the individual students after the treatment (Cont.)

Table 4.2 displays the improvement in performance of each student in the posttest after the treatment. It was evident that the students' performance was remarkably higher in the posttest scores than the pretest scores with a maximum score of 20 and minimum of 8.5. The scores of the pretest ranged from 2.5 to 18.5 with three participants scoring 18.5 and one participant scoring 2.5. Surprisingly, Std 4 scored 18.5 in the pretest and 18.5 in the posttest as well. The scored remained the same and no improvement was shown. However, the treatment had brought a huge difference in the learning achievements of the rest of the students.

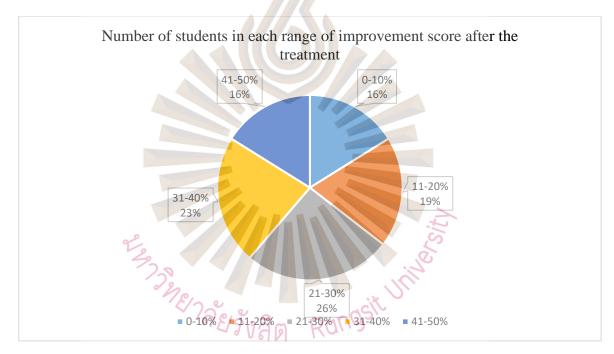


Figure 4.3 Pie chart showing the number of students in different range of improvement score after the treatment

The pie chart illustrates the number of students in different range of improvement score after the treatment. From the total of 31 students, 26% of the students managed to improve within the range of 21-30% followed by 23% in the range of 31-40%. 19% managed to improve their score in 11-20% and 16% each showed their improvement within

the range of 0-10% and 41 to 50% respectively. The largest score difference between the pretest and the posttest was 26% in the range of 21-30%.

## **4.2 ANALYSIS OF QUALITATIVE DATA**

The researcher conducted a face to face semi-structured interview with the sample group participants. The semi-structured interview was carried out to answer the research question: Will there be learning satisfaction of grade six Bhutanese students' after using the application of Think-Pair-Share in social studies?

#### 4.2.1 Semi-structured Interview

Students were interviewed individually about their learning satisfaction using Think-Pair-Share strategy. In order to protect the privacy of the research participants, they were numbered as student 1(Std 1), student 2 (std 2) and so on according to their roll number given by their class teacher. Six questions were employed for the interview after being validated and accepted by the three experts (two experts from Bhutan and one from Thailand.) To have the reliable data, the researcher permitted the students to use the national language of Bhutan to freely state their opinion to the interview questions. The interview was audio recorded and based on the results of the face to face interview with the students, the data gathered were transcribed and then analyzed through the identification of themes. The responses that the researcher has gathered from the interviewees were transcribed and classified into different themes as follows;

### 4.2.1.1 Enjoyment

Students enjoyed the lesson that was delivered using Think-Pair-Share. Sitting in groups and learning in pairs provided them a unique experience, allowing them to appreciate and feel fulfilled. "Learning Social studies with Think-Pair-Share was so much fun for me since it allowed me to help, receive help, and engage with my peer. I felt privileged to contribute what I knew, and I also learnt a great deal from my friend. My confidence was increased by discussing ideas before presenting them to the class. When the teacher asked questions, I was able to volunteer as a result of this." (Std 3,)

"I wish all the teachers could use this type of teaching strategy in the classroom because we don't have to worry about the activities. We can discuss about it with our partner and get ready. When my friend and I had opposing viewpoints on a presentation, I actually enjoyed debating with my friend. This made me easier for me to recall and learn more." (Std 15)

## 4.2.1.2 Active Learning

Everyone in the class was found participating actively in the activities without having to remind them. Students found out that Think-Pair-Share engages them and arouse their curiosity for learning.

"I jumped for joy when my answers were correct. I liked to participate all the time in your class. I like to participate more when we were made to discuss in the class in pairs because I could share my opinions without hesitation. My friend also helped me when I was wrong." (Std 4)

"I tried to finish the activities in time and then would wait for the teacher to assign with another activity. I found myself very active unlike in the past and my love for learning has increased drastically." (Std 9)

#### 4.2.1.3 Individual Accountability

Think-Pair-Share makes everyone accountable for his/her performance and learning because every member is assessed to what he/she does. It helps to make each member stronger as an individual. This strategy helps every individual to participate rather than one doing the entire assigned task. The pair is also accountable for the pair work. Hence, they help each other by crosschecking their answers and teach each other.

"Think-Pair-Share helped me to take my own role in all the works assigned. I can see myself as a better person in taking individual roles. I could provide my own opinions with my pair. I took part actively in the activities and kept ready with the answers for the presentation." (Std 15 and std 31)

"I studied in the evening after the school was over for the next lesson to prepare myself because I didn't want to depend to my friend all the time. I wanted to speak myself when the question is asked because I feel proud when I could give the correct answer and also boosts my confidence when friends clapped for my correct answer." (Std 26)

"I felt that learning social studies by using the application of Think-Pair-Share was interesting, easier and helped me remember almost everything that was taught." (Std 17)

Considering the opinions shared above, one may conclude that with the help of Think-Pair-Share, students were involved and engrossed with the assigned activities and they were able to take their parts for their own learning. It was also learnt that almost every student was interested, excited and enjoyed their learning through the use of TPS learning strategy. Furthermore, the students were encouraged and motivated to participate in the class activities by taking up their roles in pairs/groups for their learning.

#### 4.2.1.4 Self Confidence

The students believed that learning social studies through Think-Pair-Share learning strategy was fun and enjoyable. Harris(2011) found out that when the students could solve a problem, the process involved in critical thinking during CL enables them to develop the attitude of wanting to be further involved in the lesson. Activities assigned in pairs and later in teams provided them with the opportunity to practice speaking and interacting with each other which in turn helped them to boost their level of confidence and building team spirits.

"I used to be very introverted and shy person but now I like interacting with friends and sharing our ideas to each other. I am forced to speak in pairs and in group while carrying out the activity resulting in enhancing my speaking skill. I speak better while responding to my teacher. We also get more time to spend with our friends in the class to discuss on our assigned work which helped us to come up with better answers" (Std 25)

TPS played a positive role in enhancing the communication skills of the students. This helped them to open up their feelings and share their opinions.

# 4.2.1.5 Collaboration an Rongsi

The students considered learning social studies using Think-Pair-Share fun, enjoyable and interesting. Activities assigned in pairs provided them with the opportunity to practice speaking and interacting with each other. This in turn helped them in building team spirits.

"I was able to learn so much from my partner during the discussion. We discussed among ourselves even during the break time and prepared for the lesson. We were able to remember most of the points that were discussed amongst us casually." Discussion within the group served as a powerful tool for producing true ideas comparing to the individual work. It helped them to boost their self-confidence for learning and assisted in clarifying their doubts which reinforced their learning. Everyone felt that their presence was valued.

"I enjoyed lessons using Think-Pair-Share because it helped us in building confidence and moreover our opinions were respected. Everyone loved when their views were respected and felt their importance. This helped us to participate more in the class". (Std 7)

## 4.2.1.6 Motivation for Learning

The students were motivated to do the activities using the application of Think-Pair-Share. Some of the participants mentioned that they would be happy if this strategy could be recommended to other teachers as well. They assured that they would also perform much better in other subjects using this strategy. The application of TPS helped them to perform better in the class.

"I like doing my works in pair because I can discuss the answers with my friend. I make sure that it is correct before I volunteer to present it to the class." (Std 19) "I will enjoy learning and doing the activities if other subject teachers also use the application of Think-Pair-Share." (Std 27)

From the data collected on Think-Pair-Share in their learning satisfaction, one could conclude that the students are fully satisfied and enjoyed learning thoroughly. The students had a lot of great things to say about the application of Think-Pair-Share strategy.

The data analysis on the responses to the semi-structured interview questions exhibited a huge satisfaction towards using Think-Pair-Share learning strategy in learning social studies. Consequently, the analysis of the learning achievement tests and the semistructured interview questions showed a significant result towards using Think-Pair-Share strategy as an applicable way of teaching social studies

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## **CHAPTER 5**

## CONCLUSIONS, DISCUSSIONS, AND RECOMMENDATIONS

This chapter presents clear discussion on the results and findings derived from the quantitative and qualitative data gathered through the achievement test and semi-structured interview to confirm the fulfillment of the controlling research objectives and questions. Furthermore, recommendations for practice and future research have also been mentioned towards the end of the chapter. Following are the three major parts of the chapter:

- 5.1 Conclusion
- 5.2 Discussion
- 5.3 Recommendations

## 5.1 CONCLUSION

This research intended to examine whether using Think-Pair-Share Strategy enhanced grade six Bhutanese students' learning outcomes in social studies, and what level of learning satisfaction they exhibited. Hence, the researcher administered the pretest and the posttest to find the effectiveness of the strategy in use. To see the level of satisfaction in learning, semi-structured interview was conducted to gather the data. The following conclusion were drawn from the results of data analysis.

#### **5.1.1** Conclusion from the Test Score Analysis

The goal of this study was to determine the extent of grade six students' learning achievement in social studies using the application of Think-Pair-Share strategy, as well as to investigate their learning satisfaction using Think-Pair-Share in social studies. Mixed methods research data were assembled to fulfill the stated purposes. The following conclusions were drawn from the results of data analysis.

#### 5.1.1.1 The Result of Test Score Analysis

The major goal of this study was to see how much the application of Think-Pair-Share learning strategy improved students' social studies learning achievement in grade six Bhutanese students. For the very objective mentioned, learning achievement test was carried out to the sample group to find the learning achievements of the students before and after using the treatment in teaching the selected chapter "WHERE DO PEOPLE LIVE?" in grade six social studies.

Within the sample group, a comparative statistical analysis was performed using a paired sample t-test see the difference in the level of achievements between the pretest and the posttest. The pretest and the posttest mean scores were 12.0 and 17.3 respectively. The mean difference between the pretest and the posttest was 5.3. The results of the analysis revealed that the posttest mean score was higher than the pretest's mean score, as displayed in Table 4.1 in Chapter 4.

The significance value (p) was 0.00, indicating that scores of the sample group's posttests were significantly higher than their scores of the pretest. Increased scores in the posttest were seen in all the students except for one student (Std4) who remained tie at 18.5. However, the student (std 4) during the semi-structured interview said that he thoroughly enjoyed the teaching using the TPS strategy. "I enjoyed the cooperative learning in pairs and in groups. I also liked sharing my ideas with my partner and enjoyed listening to my friend as well." Thus, this accepted the hypothesis which stated that there would be improvement in the learning achievement of grade six Bhutanese students in social studies after using the application of Think-Pair-Share.

Therefore, the results presented that the participants were able to perform better and could score high in the posttest than the pretest. The study determined that the results of the mean, standard deviation and significance value computed using paired sample t-test presented that there was a drastic improvement in the posttest scores as a result of using Think-Pair-Share learning strategy. Therefore, Think-Pair-Share learning strategy improved the learning achievements of the grade six Bhutanese students in social studies and was found to be an effective strategy in teaching social studies.

#### 5.1.2 The Results of Semi-Structured Interview Analysis

The second aim of the study was to find out the learning satisfaction of grade six Bhutanese students after using Think-Pair-Share in learning social studies.

The data for this objective were gathered through a semi-structured interview with the students. All the participants in the sample group were given the opportunity to participate in the interview at the end of the study. The interview was carried out with the entire population of the class. The interview questions were made to find the learning satisfaction of grade six students towards Think-Pair-Share learning strategy in learning social studies. The question consisting of 6 statements were conducted at the end of the treatment. Data were transcribed, interpreted and analyzed using thematic approach to content analysis. Finally, the researcher arrived to this conclusion that students exhibited an immense satisfaction on using the application of Think-Pair-Share. Students' learning satisfaction was visible in their following expressions:

# 5.1.2.1 Enjoyment Svan Rangsit

Almost all the students were found to have enjoyed the lessons. They were able to understand and retain the concepts clearly which resulted in securing high achievement scores in the posttest with the help of Think-Pair-Share. This method of teaching made them excited in learning the subject.

#### 5.1.2.2 Individual Accountability

All students took the assigned work seriously and could respond and justify their answers correctly. They were very much motivated by the application of Think-Pair-Share learning strategy. They also took the responsibility to crosscheck their answers before presenting it to the whole class.

Students were found actively engaged in pair discussion and debating themselves to bring out the correct answers with the help of the strategy.

It was also learnt that almost every student was interested, excited and enjoyed the learning through the use of TPS learning strategy. Moreover, most of the students liked working in pairs discussing and sharing ideas.

## 5.1.2.3 Self Confidence

The Think-Pair-Share created a conducive learning environment for the students help them build their self confidence. They are made to discuss in pairs and in groups to do the assigned work. They are found enjoying the discussion and taking their own turns to share their opinions and perspective among themselves before bringing it to the final consencious. This helped the students to interact and practise speaking with each other which ultimately helped to build their confidence level.

#### 5.1.2.4 Collaboration

The students thoroughly enjoyed the lessons taught using the application of Think-Pair-Share as it was fun and enjoyable. They got the opportunity to learn to speak better. Team spirit and collaboration was reinforced when they are assigned to do the works in pairs and in groups. Their interest in learning social studies was greater after the introduction of Think-Pair-Share learning strategy.

## **5.2 DISCUSSION**

According to the findings of the study, the adoption of Think-Pair-Share learning strategy in teaching social studies to grade six students enhanced their learning achievement and had a positive impact on their learning satisfaction towards Think-Pair-Share learning strategy in social studies. Moreover, the score difference between pretest and posttest also revealed that using Think-Pair-Share to teach social studies had a significant positive impact on students' learning achievement.

## 5.2.1 Research Objective 1

This study had the probable findings to the two research questions of the study. The first finding was the adoption of Think-Pair-Share learning strategy in teaching social studies to grade six students improved their learning achievement. The mean difference of 5.3 in the pretest and the posttest of the sample group revealed that there was improvement in their learning achievements in social studies. By looking at the test scores of pretests before the treatment, there was a huge difference between the high achiever and the low achiever. The high achiever scored as high as 18.5 and whereas the low achiever scored as low as 2.5 creating a huge difference between the high and low achiever. The study was in line with Muhammad Lukman Syafii (2018) which showed that the learners who were taught using TPS did better than students who were taught using the traditional method of teaching.

The study was in line with the one conducted by Kurjum, Muhid, and Thohir (2020) which showed that the students who were taught using the application of Think-Pair-Share performed better than the students who were taught using the traditional method. Findings of this study showed significant differences in the pretest and posttest scores, thereby validating the above fact

Moreover, it also fits with Yusuf, Owede, and Bello's (2018) study, which indicated that TPS had a significant impact on instructional method for senior secondary school students' achievement. The study also discovered that teaching students using Think-Pair-Share resulted in better results than teaching students using the traditional (lecture) strategy. This led to the conclusion that students taught using the application of Think-Pair-Share had a positive impact on the social connections (collaboration with others) and interdependency amongst peers which was a characteristic outcome of the strategy.

Finding of this study was also consistent with the study carried out by Raba (2017) in which it stated that Think-Pair-Share helped students improve their skills in speaking. It also provided students with a learning environment which was conducive for cooperation and increased their willingness to study more. Through discussion with their pairs, Students were involved in their own learning. This assisted them in self-training and critical thinking development. It also let them reduce the stress and embracement because even if the answer was incorrect, the embracement was shared. All the above results of the previous studies were found in the study this researcher has done. Students prior to the study were found reluctant and shy to talk to friends and share their ideas and opinions. The students even had difficulty in beginning the discussion and take active part in it. However, by the end of the study, students were found to be motivated and enthusiastic in taking part in the group discussions and most of the students were found confident in communicating their ideas and opinions to their team members and even to the whole class.

Similarly, the findings of this study were consistent with the findings of Rohim and Umam (2019), a comparison study titled "The Effect of Problem-Posing and Think-Pair-Share Learning Models on Students' Mathematical Problem-Solving Skills and Mathematical Communication Skills." They contrasted and analyzed the impact of problem-posing and Think-Pair-Share on communication and mathematical problem-solving abilities. Both the procedures were found to be quite successful in improving learning achievements in mathematics. Nevertheless, problem-posing was found to be less successful than Think-Pair-Share. Students were also encouraged to improve their

mathematics problem-solving and communication skills by using the application if Think-Pair-Share. Likewise, research participants in this study too displayed higher problem solving and communication skills. It was evident from the higher posttest scores as compared to the pretest scores. The researcher also found significant difference in the level of communication skills of the students after the treatment. It was observed that students communicated freely and confidently with their peers and most of the participants confirmed the same during the semi-structured interview.

Yet, another research conducted by Carss (2007) found that using Think-Pair-Share provided opportunities to teachers to encourage and reinforce the link between the language and thinking of the students. Also, positive interdependence amongst learners were observed as they worked in teams to accomplish their task. Everyone became accountable when they are invited to share and present to the larger group. When the students were given pair work, the level of accountability increased than in groups. As a result, Think-Pair-Share encourages students to be accountable for their own learning.

The noteworthy benefits of adopting Think-Pair-Share were centered on the cooperation, rather than the roles of the teacher, as indicated by students and confirmed by the teacher. The pairing has clearly aided in the evolution of thinking and the creation of new information

Students worked in pairs to practice their share of contributions and completed the task as required, demonstrating positive interdependence. Everyone took responsibility for sharing their ideas with their partner as well as presenting to the larger group. When the pair of students worked independently unlike in groups, the level of accountability increased. As a result, Think-Pair-Share improves students' social studies learning outcome.

#### 5.2.2 Research Objective 2

"To find out grade six Bhutanese students' learning satisfaction in social studies using Think-Pair-Share".

At the end of the study, all 31 students were interviewed and learned that using the application of Think-Pair-Share to teach social studies was fun, enjoyable and stress-free experience. It was learned that TPS strategy motivated and developed the participants' confidence. The works which were given in pairs and groups reduced their stress level and they were less embarrassed. They were also able to participate actively in the class and therefore, helping them to concentrate on what is being taught.

The qualitative data obtained from the semi-structured interview showed that the participants were appealed by the approach of TPS. Thus, the researcher established that Bhutanese grade six Students had immense satisfaction using the application of Think-Pair-Share in teaching. Following are the conclusions drawn from the semi-structured interview.

The students stated that TPS strategy made their learning environment very conducive and lively whereby they could participate in the activities actively. The students were given more time to do the work so learning became more student-centered. Each student in the group/pair was responsible and accountable to complete the given task. In addition, the TPS strategy allowed students to discuss their views in pairs, making them feel valued in the group. This incentivizes them to put forth even more effort.

Children seemed to shoulder larger role of doing the assigned work and get involved actively in the activity ultimately boosting their confidence for learning and to obtain shared goals. The high achiever supported low achiever to learn in a better way. Thus, children learned to depend on each other.

It is in line with Mrs. Komal R. Pardeshi (2016) who claimed that the Think-Pair-Share permits students to think for themselves about a certain topic, articulate their ideas, and share those ideas with the partner. The TPS activity engages all students in the teachinglearning process and make class more engaging. By fostering a high level of student reaction, its increased classroom participation (Hudri & Irwandi, 2019). The possible reasons for such findings could be because of the conducive and friendly learning atmosphere and active involvement of the students themselves in the carrying out the tasks.

## **5.3 RECOMMENDATIONS**

From this study, it was concluded that the use of the application Think-Pair-Share was beneficial in improving the learning outcomes of the Bhutanese students and it indicated greater satisfaction of the learners for learning social studies in an exciting way. Having achieved both the research objectives, the researcher would recommend the following points for practice and future research.

## **5.3.1 Recommendation for Practice**

1) Teaching through the application of Think-Pair-Share had positive impact on the students' learning achievement. The outcomes of this study revealed that the posttest learning achievement scores were higher than the pretest scores. As a result, this strategy is recommended.

2) Teachers may include Think-Pair-Share into activities that are applicable irrespective of subjects to enhance the students' learning achievements and the learning satisfaction. It can also be used to enhance communication and social skills besides learning the content. It can make a significant difference in their learning.

3) Think-Pair-Share can be used as an alternative method to conventional teaching method. Thus, the study recommends that using the application of TPS creates a student-centered learning platform which makes the lesson interesting and engaging to enhance students' learning.

4) Think-Pair-Share encourages active participation and facilitates individual accountability. So, this strategy can be used to promote class participation and individual role.

5) Since this strategy is applicable for all the subjects, Dzongkha teachers are encouraged to employ Think-Pair-Share to help students improve learning achievements in the subject.

6) Finally, this study also recommends the school administration to focus on CL learning strategies to engage the students productively in learning.

## **5.3.2 Recommendations for Future Research**

Considering certain limitations of the study, the researcher would like to recommend the following points for the future researchers:

1) The researcher recommends future researchers to study the effectiveness of Think-Pair-Share Strategy in this subject area with different grades. This may help you to know the effectiveness of the strategy and how well it works with the other subjects and grades.

2) This study used only one CL strategy to see its effectiveness. Future researchers may try with other CL strategies to see the effectiveness and choose that are suitable to teach the Bhutanese students

3) This study was time limited, and it was completed within a month following the experimental teaching. The researcher recommends future researchers to conduct for a longer length of time to provide more reliable and significant outcomes.

Finally, Think-Pair-Share was discovered to be a student-centered learning strategy that assisted students in improving their performances. The implementation of the application of Think-Pair-Share was found to be beneficial in improving students' learning outcome. Simultaneously, the students showed greater satisfaction of learning social studies on using the TPS strategy.



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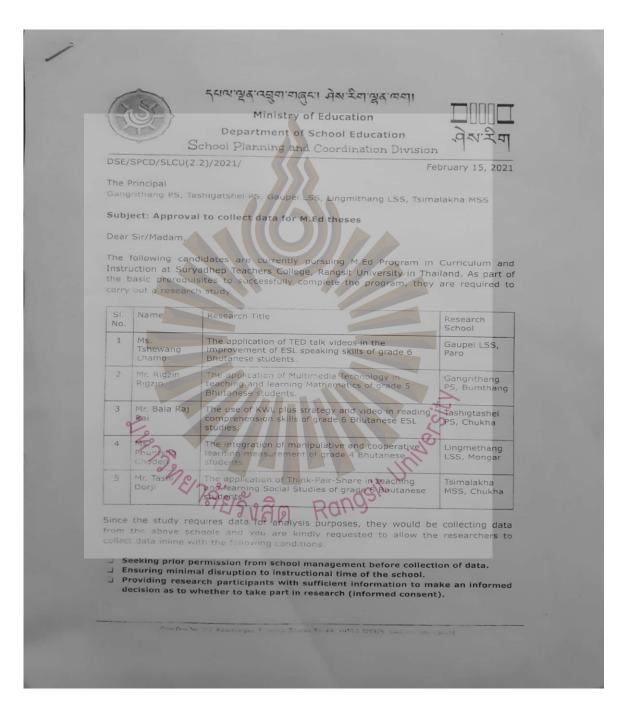
# APPENDIX A

LETTER OF APPROVAL 

Rangsit

The Director General Department of School Education Ministry of Education Thimphu, Bhutan 8th February, 2021 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 five M. Ed. candidates to collect data in Bhutan in the period of 15<sup>th</sup> February - 20<sup>th</sup> March, 2021. The details of the candidates are shown below: Name SI. ID Research Title **Research School** No Ms.Tshewang Lhamo The Application of TED Talk Videos in the Gaupel Lower Secondary School Improvement of ESL Speaking Skill of Grade 6 Bhutanese Students The Application of Multimedia Technology in 6205754 Mr. Rigzin Rigzin Gangrithang Primary School Teaching and Learning Mathematics of Grade Bhutanese Students 6205755 Mr. Bala Raj Rai The Use of KWL Plus Strategy and Video in Tashigatshel Reading Comprehension Skills of Grade 6 Primary School Bhutanese ESL Students The Integration of manipulative and Cooperative Lingmithang Ms.Phuntsho Choden Middle Secondary 4 Learning in Learning Measurement of Grade 4 School Bhutanese Students Mr. Tashi D The Application of Think-Pair-Share in Teaching Tsimalakha Middle Secondary and Learning Social Studies of Grade 6 Bhutanese Students Thank you for your kind consideration. Truly yours, Usapone Swekni

Associate Professor Usaporn Swekwi, 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





## ชามาฎาการกระมีสารการการงาม





TSIMALAKHA MIDDLE SECONDARY SCHOOL Tele: (00975) 8-478314 (Telephone Email: ch.tsimalakhalss@education.gov.bt

Ref. TMSS/PER-2/2020-2021/1/25

Date: 10th March 2021

### TO WHOM IT MAY CONCERN

This is to certify that Mr. Tashi Dorji bearing student ID no. 6205757 and currently undergoing Master of Education at Rangsit University, Thailand Las successfully compeleted month long data collection with Tsimalakha Middle Secondary School, under Chhukha District.

Mr. Tashi Dorji's presence in the school has greatly helped school bridge the gap of a teacher on bereavement leave and few teachers who are on invigilation duty for ongoing board examination for classes X & XII. Besides conducting classes for his data collection, he volunteered to take other classes to fill the gap and engage students meaningfully.

In a short span of our working together, it is good to know that Mr Tashi Dorji is a hard working individual and caring teacher with good moral and peasing personality. The school wish him good luck with his research and future endeavour.

(Phuentsho Tashi) PRINCIPAL Principal Tsimalakha MSS Chhukha Dzongkhag Copy to: 1. Tashi Dorji (Reseracher) for his necessary reference 2. Office file for record.

CCS: Caring for Children's Success

Date: 27/01/2021

Dear Tashi Dorji

This is to confirm that I have gone through your instruments developed on the topic "Where do **People** live?" for your research study. I have evaluated as per the instruction and provided **necessary** comments for the refinement and to enable you to have successful data collection.

ระ การทยาวลัยรังสิ

Sincerely

Ms. Pema Wangzom

Teacher Dekiling Middle Secondary School

Sarpang, Bhutan

Scanned with CamScanner

#### Date: 27/01/2021

### Dear Tashi Dorji

This is to confirm that I have gone through your instruments developed on the topic "Where do People live?" for your research study. I have evaluated as per the instruction and provided necessary comments for the refinement and to enable you to have successful data collection.

Ini

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Sincerely

DIT

Dr. Marut Patphol Associate professor Srinakharrinwirot University

> ะ การทยาวลัยรังสิต

Thailand

#### Date: 27/01/2021

#### Dear Tashi Dorji

This is to confirm that I have gone through your instruments developed on the topic "Where do People live?" for your research study. I have evaluated as per the instruction and provided necessary comments for the refinement and to enable you to have successful data collection.

Sincerely

Ngawang Tenzin Teacher Chumigthang Middle Secondary School Bhutan

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# APPENDIX B

LEARNING ACHIEVEMENT TEST

2 A JARE JAE LINING

## **Learning Achievement Test**

## **Objective**(s):

• To evaluate the extent of learning achievement of 6<sup>a</sup> grade students in social studies using think-pair-share learning approach.

Class: VI		Total Marks:
20		
Subject: Social studies		Time: 1 hour
Name:	(6)	Roll No:
	Section A	
Question 1Multiple Choice Ques	stions (MCQ)	
<b>Direction:</b> Each question is follow	ved by four possi	ble answers. Choose the correct

**Direction:** Each question is followed by four possible answers. Choose the correct answer and write it down in the space provided. (5 Marks)

- 1. A place where people have built houses to live permanently is called
  - A. Immigration
  - B. Population
  - C. Settlement
  - D. Migration

Answer: \_\_\_\_\_

- 2. A study that tells us how many men, women, children and old people are living in a country is called
- A. Census
- B. Migration
- C. Population
- D. Rapid Population

Answer: \_\_\_\_\_

- 3. We can only have an estimate number of population because
- A. People migrate from rural to urban areas.
- B. People migrate from urban to rural areas.
- C. New babies are born and people die every day.
- D. New babies are born and people die every year.

#### Answer:

- 4. When the number of people living in a country increases, we call it
- A. Population.
- B. Population Planning
- C. Population Structure
- D. Population growth

#### Answer: \_\_\_\_\_

5. There were 300 people living in a village of which 10 people died. 15 children will be Rangsit Unive born next day. 🥠

The population of the village will increase by

<sup>7</sup>ล้<u>ย</u>รังสิต

- A. 0
- B. 5
- C. 10
- D. 15

Answer:

## Section B

### Answer the following questions

**Direction:***Answer the following questions. Marks to each question are provided in* brackets. ()

- 1. How can we find a population of a country? (1 Marks)
- 2. List at least two activities of the people that harm the environment.(1 mark)
- 3. What is meant by settlement? Give two examples of settlements (2 Marks)
- Why are there only estimates of population and not the exact numbers? 4.

(1 mark)

- Bhutan is a small country with less population. What would be the impact, 5. if there is a rapid population growth? Mention any three (3 marks)
- 6. Write two reasons of population growth. (2 marks)
- 7. Using a diagram, explain the cycle of people and environment. (3 marks)

'It is very important to protect the natural environment.' Give your opinion 8. on the statement. (2 marks) --Best Wishes --<sup>วร</sup>ก<sub>ยาลัยรังสิต</sub>

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Item Test No.	Expert 1	Expert 2	Expert 3	IOC	Remarks
Question 1	+1	+1	+1	+1	Congruent
Question 2 A	+1	+1	+1	+1	Congruent
Question 2 B	+1	+1	+1	+1	Congruent
Question 2C	+1	+1	+1	+1	Congruent
Question 2D	+1	+1	+1	+1	Congruent
Question 2E	+1	+1	+1	+1	Congruent
Question 2F	+1	+1	+1	ç <b>∓1</b>	Congruent
Question 2G	E17 7 8 1 5 1 2	+1 70 R0	+1;it	+1	Congruent
Question 2H	+1	+1	+1	+1	Congruent
Average					

## Item-Objective Congruence for learning achievement test by three experts

# APPENDIX D

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SAMPLE LESSON PLAN 2 47 วิทยาลัยรังสิต

## Lesson Plan 1

(Block period)

Class: 6 Class Strength: 33

Date: Period:

## Time: 90 minutes

Subject: Social Studies

Topic: Population, Population growth and Rapid population growth.

Cooperative learning strategy: Think-Pair-Share

Life skills: Effective Communication.

**Teaching Learning Material (TLM):** High frequency words chart, text and chalk board **Previous knowledge**: Children have already learnt that people started settling down from the time of New Stone Age. They also learnt that human civilization grew more during the early civilization in the previous chapter.

**Objectives**: By the end of the lesson, a child will be able to:

- 1. Understand and write down the definition of population.
- 2. Explain why we need to study population.
- 3. Describe what makes population grow.
- 4. Define population growth.
- 5. Explain the effects of population growth.

<sup>7ย</sup>าลัยรังสิต

6. List the effects of rapid population growth from the case study given in the

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text.

## **Introduction** (5 minutes)

Exchange greetings. Create a conducive learning environment for teaching and learning. Share the lesson objectives for the period. Give the following populations facts about Bhutan

Currently, the population of **Bhutan** is **775,436** as of Monday, December 14, 2020, based on Worldometer elaboration of the latest United Nations data. (2020)

The total area is 38,063Km2 (14696 sq. miles)

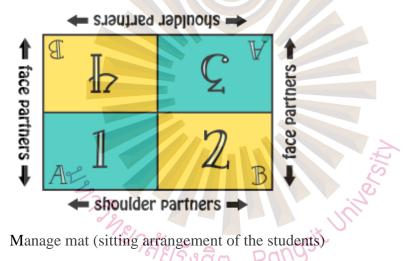
### Session I

## Lesson Development (10 minutes)

Display the high frequency words chart. Introduce words like population, estimate, census, settlement, urban, growth, rural. Migration, waste management, conservation.

Orient reading of the text with the definitions of population and census and their importance Let students from different group volunteer to read the literature on what is population & Census and why do we study?

The schools across Bhutan follow this kind of sitting arrangement. The students will be seated in this sitting arrangement. Each student will be numbered from 1 to 4.



## Input: 10 minutes

- ✓ Define Think-Pair-share
- ✓ Explain why we use think-pair-share
- ✓ Explain how to use think-pair-share
- ✓ Tell the benefits of using think-pair-Share

#### Activity I (20 minutes)

**Instruction**: For any question or activity, I will give you time to think individually to resolve the issue. The time will be determined by the nature of the question and the degree of complexity.

Then I will ask you to split into either face or shoulder partners and discuss what you think about the given topic/issue or the problem. Each of you shall discuss and share ideas with your partner. Also exchange views and ideas to reach a common answer. Finally, you will share your answer to the whole class.

Read the text from page number 47-49 and answer the following questions. Think individually for a minute and write the answers for these questions.

Discuss the points with your shoulder partner for about 2 minutes. Then, write down your partner's points if it's different from your points. Review all of your points and circle the one you think is most important. One of you will share this idea with the whole group for 5 minutes.

- 1. What is population? Write the population of your school.
- 2. Why do we need to study population?
- 3. Who maintains the census in the village and at the district level?
- 4. What information is recorded in the census?
- 5. Why are there only estimates of population and not the exact numbers?
- 6. Discuss the factors that makes population grow.

Monitoring: Move around the class and help the needy students.

## Session II

## **Lesson Development**

Revise the previous lesson by asking few questions. (5 minutes)

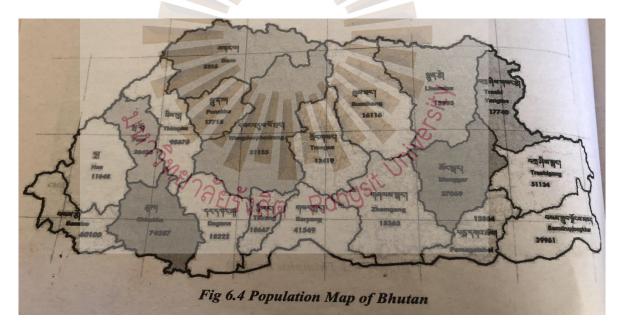
## Activity II (20minutes)

**Instruction**: Read 'the effects of population growth' individually and write down some of the effects of population growth in your village. Share with your face partner before sharing it to the whole class. You must also note it down in your exercise book. The teacher will call few volunteers to present it to the class.

Monitoring: Help with difficult pronunciations.

## Activity III (15 minutes)

Study the population map of Bhutan given below. Observe the most populated places and think of the reasons as to why there are settlements in those places. Discuss your points with your partner and write the common consensus in your exercise book to share with the whole class.



## Follow-up: Writing activity

List down the effects of population growth on government, land, water and air, forest resources

How can we prevent our natural resources from becoming overused?

Lesson closure: the teacher will ask few students to tell what they have learnt. (5 minutes)



# **APPENDIX E**

IOC FOR LESSON PLAN

Item No	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

Item-Objective Congruence for Lesson Plan



## **APPENDIX F**

SEMI-STRUCTURED INTERVIEW QUESTIONS

## Semi-Structured Interview

Sl. No.	Learning Satisfaction Questions
1	Did you enjoy lesson using think-pair-share strategy? Why?
2	How did you feel about the overall teaching using the think-pair-share?
3	How did think-pair-share help you to interact with peers?
4	How did think-pair-share help you enhance your learning?
5	Could you give the good points of using think-pair-share?
6	Could you give the weak points of using think-pair-share?
	้าลิยรังสิต Rangsh

# **APPENDIX G**

**IOC FOR SEMI-STRUCTURED INTERVIEW QUESTIONS** 

Sl.		Expert	Expert	Expert	IOC	Remarks
No	Interview Questions	1	2	3		
		. 1	. 1	. 1	. 1	<u> </u>
	Did you enjoy lesson	+1	+1	+1	+1	Congruent
1	using think-pair-share					
	strategy? Why?					
	How did you feel about	+1	+1	+1	+1	Congruent
2	the overall teaching using					
	the think-pair-share?					
	YY 1'1 (1'1 '				. 1	<u> </u>
	How did think-pair-	+1	+1	+1	+1	Congruent
3	share help you to interact					
	with peers?					
	How did think-pair-	+1	+1	+1	+1	Congruent
	share help you enhance					_
4	your learning in social	Ann.			t/	
	studies?				S	
	42				5	
	Could you give the good	+1	+1	+1	+1	Congruent
5	points of using think-		Dand	Sit		
	pair-share?	รงสต	Rain	0		
	Could you give the weak	+1	+1	+1	+1	Congruent
6	points of using think-					
	pair-share?					

Item-Objective Congruence for Semi-Structured Interview

#### **APPENDIX H**

PAIRED SAMPLE T-TEST

#### **Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Score on before Intervention	12.000	31	4.2032	.7549
	Score on after Intervention	17.258	31	2.4862	.4465

#### **Paired Samples Correlations**

			N	Correlatio n	Sig.
Pair 1	Score on befo	ore			
	Intervention d	& Score	31	.788	.000
	on after Inter	vention			

2-237

# Paired Samples Test

	E/J	Paire	d Diffe	rences				
		781508	10	DANU	nfidence			
		Std.	Std.	Interva	l of the			Sig.
		Deviat	Error	Diffe	rence			(2-
	Mean	-ion	Mean	Lower	Upper	t	df	tailed)
Pair Score on 1 before Intervention - Score on after Intervention	-5.2581	2.7168	.4880	-6.2546	-4.2615	-10.776	30	.000

## **APPENDIX I**

## THE INSTRUMENTS VALIDATORS



SL.No	Name	Position Title	Institution
1	Dr. Marut Patphol	Associate Professor	Srinakharrinwirot
		~	University, Thailand.
2	Mr. Ngawang Tenzin	M.Ed Teacher	Chumithang Middle
			Secondary School
3	Ms. Pema Wangzom	M.Ed Teacher	Dekiling Middle
			Secondary School

#### Experts who validated the Instruments



# **APPENDIX J**

# **RELIABILITY TEST-KR-20** น การทยาลัยรังสิต

Rangsit

Unite

#### **Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.808	.806	13

#### **Reliability Statistics**

	Cronbach's Alpha Based on	
Cronbach's Alpha	Standardized Items	N of Items
.808	.806	13



Mean	Variance	Std. Deviation	N of Items
7.07	10.610	3.257	13

APPENDIX K

APPEnse CONSENT LETTER FORM

#### **Parents' Consent letter**

#### Dear Parents,

I am currently enrolled in the Master of education in Curriculum and Instruction at Rangsit University, Thailand. In order to fulfill the requirement of the Masters' degree, I am undertaking a research on '**The Application of Think-Pair-Share in Teaching and Learning Social Studies of Grade 6 Bhutanese Students.**' The research study will use 8 teaching periods of social studies in class 6 during the school hour for a period of four weeks from mid- February to Mid- March. Interviews will be conducted towards the end. The content of the teaching will be no different from what they are supposed to be learnt. The content of the interviews will be used solely for this research study. Therefore, I would like to seek your permission to let your child participate in this study. Their names and school will not be used in the final paper or presentations. Please kindly note that all information provided will be confidential. If you agree to let your child participate, please sign the form below.

I greatly appreciate your support in this research study.

ใ<sub>นยาลัยรั</sub>

Sincerely

Tashi Dorji Teacher

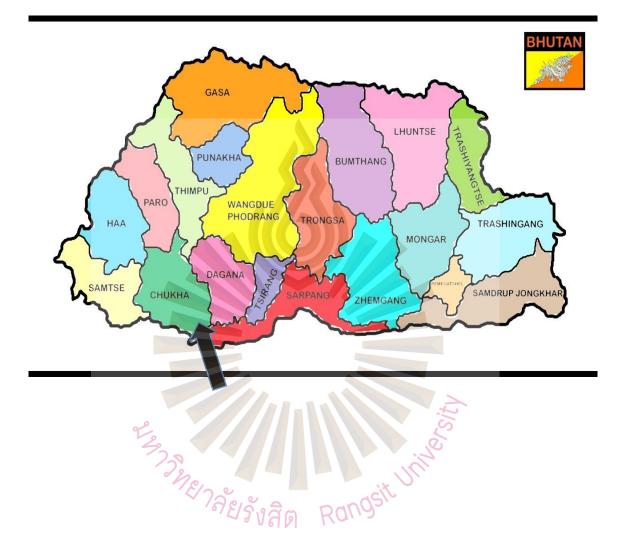
Tsimakha Primary School, Chhukha

I acknowledge that 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 Mr. Tashi Dorji and have agreed to let my child (\_\_\_\_\_\_) participate in the research process for the study described.
Name:\_\_\_\_\_\_Signature: \_\_\_\_\_\_

#### APPENDIX L

LOCATION OF THE RESEARCH SCHOOL





#### BIOGRAPHY

Name Date of Birth Place of Birth Institution attended

Scholarship Address

Position and Office

Tashi Dorji November 14, 1985 Wangdue Phodrang, Bhutan Paro College of Education, Bhutan Bachelor of Education, 2009 Sherubtse College Post Graduate Diploma in English 2019 Rangsit University, Thailand Master of Education in Curriculum and Instruction, 2021 Trongsa Penlop (TPS) scholarship, 2019 Tsimakha Primary School, Chhukha, Bhutan tashidorji123@education.gov.bt Ministry of Education, Education and Training Services, Position: Teas.