LEBANESE AMERICAN UNIVERSITY

The Effects of Cooperative Learning on Students’ Attitudes and Achievements

By

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The Effects of Cooperative Learning on Students’ Attitudes and Achievements

Darine Yehya

ABSTRACT

This study examined the effects of cooperative learning, namely the Think-Pair-Share method (TPS), in comparison with the lecture-based instructional method on the attitudes and academic achievement of students in social studies. Furthermore, this inquiry aimed to investigate whether teaching social studies through the Think-Pair-Share approach would solicit more positive attitudes towards social studies as well as promote higher achievement in students. In this study, a quasi-experimental design was used with a pretest-posttest data analysis. Data collection lasted four months, divided into two months intervals. During the first two months, the lecture-based method was used followed by the TPS approach in the latter two months. The sample consisted of 60 mixed-gender grade six, seven and eight students, selected from a private school in Mount Lebanon. The students were classified as middle-class in terms of their socio-economic status. Their age ranged between 11-14 years. The results showed that the participants had positive perceptions of the Think-Pair-Share (TPS). The results also revealed that the majority of the students had higher achievement after the implementation of the Think-Pair-Share (TPS) strategy. The results of this study can serve as a prototype to encourage educational institutions in Lebanon to adopt this instructional strategy.

Keywords: Cooperative Learning, Think-Pair-Share, Student Attitudes, Students’ Achievements, Education in Lebanon
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Chapter One

Introduction

1.1 Background of the Study

In the past, instruction depended on traditional teaching styles, such as the lecture-based method. This instructional technique is still broadly used at the present time (Tran & Lewis, 2012a). In such an approach, the teacher is the center and the students are mere receptors of information. Students study individually and take exams; thus, this teaching system is competitive and leads to divisiveness. Two groups are identified: the high-achievers who crave high grades, and the low-achievers who try to follow but fall back (Slavin, 1977).

Consequently, traditional classrooms discourage students’ interaction, but in instruction based on cooperative learning, students are encouraged to interact and discuss ideas (Johnson & Johnson, 2008). In comparing the cooperative learning method and the traditional instruction, cooperative learning was found to impact students positively, leaving them with a positive attitude and helping their academic development (Tran, 2019). Thus, traditional classes are currently being replaced by modern classes that depend on a student-centered approach (Kennedy, Hyland, & Ryan, 2006). In this approach, in addition to mere knowledge and information, students learn communication, problem solving, creative and critical thinking skills for the years ahead (Zakaria & Iksan, 2007). Such skills can be gained and mastered when changes are made to the structural and contextual levels of the classrooms and teaching styles. Students need to actively construct knowledge in their own minds (Bada & Olusegun, 2015), when they are actively engaged, they will be motivated to participate and share ideas in class.
According to Yaduvanshi and Singh (2019) cooperative learning has become an important instructional method in today’s classrooms. Cooperative learning can be defined as a group of teaching methods that join students in small learning groups, where students learn, and help other students within their group learn as well. With proper organization, students study together and make sure that each and every student in their group has grasped the taught concepts (Slavin, 1995). In addition, cooperation ensures engagement between students and helps them in solving problems collectively (Chen, 2018; Heleen & Arnold, 2018).

There are various modalities for cooperative learning. For example, Think-Pair-Share (TPS), the method used in this study and developed by Frank Lyman (1981), engages students and increases their motivation and participation in classrooms. In this strategy, students pair, think, and share the outcome of their work with the class. Each student takes a few minutes to think individually before pairing and discussing the ideas with his/her classmate partner. Once the pair has agreed on a common outcome, they share their ideas with their classmates (Lightner & Tomaswick, 2017). As noted by Raba (2017), the Think-Pair-Share strategy boosts students’ confidence and strengthens their freedom of sharing their ideas and thoughts in a comfortable learning environment.

1.2 Purpose of the study

The purpose of this study is to investigate the effect of the cooperative learning approach, particularly the Think-Pair-Share (TPS) method, on students’ attitudes and academic achievement in the field of social studies. In addition, this study aims to assess the perceptions of school administrative officers regarding this instructional method. Accordingly, this study aims to address the following research questions:
1. Does the implementation of the TPS method of teaching result in significant differences in students’ attitudes towards social studies?

2. Can significant differences be found in the achievement of students before and after the implementation of the TPS method of teaching?

3. How do school administrative officers perceive the TPS method of teaching?

1.3 Significance of the study

Research on the topic of cooperative learning in general and the Think-Share-Pair method in particular is scarce in Lebanon. This study aims to contribute to the literature by shedding light on the effectiveness of implementing the TPS modality in Lebanese middle-school social science classes, in an attempt to pave the way for policy makers to introduce non-traditional instructional strategies in the schooling system in Lebanon.

1.4 Theoretical framework

In the field of education in general, the most researched topic is cooperative learning (Yasin, Rasool, & Azim, 2019) because of the positive impact that this instructional strategy has on students’ learning. Some of these positive effects include but are not limited to the willingness of students to listen to each other, to share with each other and to build new ideas (Gilles, 2008).

As previous research on cooperative learning has shown, its strategies also enhance the academic achievement of students (Slavin, 1995). There are several theoretical perspectives that guide research on cooperative learning. The most critical theories are discussed below.

1.4.1 Social Constructivism

Cooperative learning draws on the social constructivism theory (Kalina & Powell, 2009) that originated from the work of Lev Vygotsky, a Russian teacher and psychologist (as cited in Daniels,
who stipulated that learning occurs through social collaboration. One of the major principles of the social constructivist approach is that students must work and interact together for optimal learning to occur (Tenenbaum, Naidu, Jegede, & Austin, 2001). In other words, students must be active learners (Lemov, 2010). In contrast, teachers are only facilitators, and their role is to promote effective questions where students try different solutions for a certain question then discuss the proposed solutions until they are able to reach consensus among themselves (Zmuda & Harada, 2008). Ajiboye and Ajitoni (2008) highlighted the fact that students enjoy constructing, discussing and finding their own solutions. Studies have shown that students’ academic achievement was higher when implementing the constructivist approach in class, as opposed to when a teacher-centered approach was implemented (Cornelius-White, 2007). Slavin (2014) stated that “Constructivist approaches to teaching typically make extensive use of cooperative learning, on the theory that students will more easily discover and comprehend difficult concepts if they talk with each other about the problems” (p.236-237).

An offset of social constructivism, is a concept developed by Vygotsky called the “zone of proximal development theory. Vygotsky (as cited in Hedegaard, 2002) explained the zone of proximal development as follows:

“The child is able to copy a series of actions which surpass his or her own capacities, but only within limits. By means of copying, the child is able to perform much better when together with and guided by adults than when left alone. The difference between the level solved tasks that can be performed with adult guidance and help and the level of independently solved tasks is the zone of proximal development” (p.117).

Vygotsky’s theory focuses on the importance of communicating and interacting with others as an integral part of the learning process. This space comprises an area in which learners might
expand their learning with the aid of or collaboration with other more experienced persons be they instructors or peers. Thus, a student learns by seeking help whether from a friend or from his/her teacher (Altun, 2017). Doolittle (1995) agrees that Vygotsky’s Zone of Proximal Development theory is a direct application of the cooperative learning strategy, as seeking help whether from a teacher and/or peers is the cornerstone of cooperative learning.

As noted by Kalina and Powell (2009), the best teaching strategy to achieve higher-order thinking skills and students constructing their own knowledge is through the implementation of the social constructivist approach when teaching social studies. Rice and Wilson (1999) stated that: “Social studies teachers must encourage their students to engage in collaborative learning, using higher-order thinking skills, construct their own knowledge about social studies concepts, and relate classroom lessons to their lives and experiences” (p.32). Consequently, teachers must explain a concept in a variety of ways, to ensure that all students are able to learn it properly (Nutall, 2000). As such, implementing the social constructivist approach in the instruction of social studies has resulted in diverse learning styles and allowed students to master the different concepts (Ediger, 2000). Yet it is important to note that this approach has been used in different educational fields and not only in social studies (Dewey, 1938; Slavin, 2014). Therefore, it can be argued that the constructivist approach can be implemented in all subject areas (Hansen, 2004).

1.4.2 Social Interdependence Theory

The second theory, the social interdependence theory, is attributed to the Gestalt school of psychology. This school influenced Kurt Lewin, who noted that the core factor of group work is social interdependence. Lewin (as cited in Johnson and Johnson, 2008) explained that “a person’s behavior is motivated by states of tension that arise as desired goals are perceived and that it is this
tension that motivates actions aimed at achieving the desired goals” (p.11). Johnson, and Johnson (2008) stipulated that there are two types of social interdependence; negative and positive social interdependence. Negative social interdependence occurs when students work in a competitive environment. On the other hand, positive social interdependence occurs when students work cooperatively to reach a common outcome.

Thus, through cooperative learning students will work through a positive social interdependence classroom environment. Simply put, when group members cooperate, the performance of one member in the group will affect the performance of the group as a whole (Lewin, 1935). Thus, the positive performance of one person will have a positive impact on the entire group members.

1.4.3 Social Learning Theory

The third theory to guide research on cooperative learning is the social learning theory, attributed to Albert Bandura (1977). As he put it: “according to the social learning theory, modeling influences produce learning principally through their informative function. During exposure observers acquire mainly symbolic representations of modeled activities which serve as guides for appropriate performances” (p.24).

This theory argues that by observing their peers and imitating them, students learn best that which is achieved through cooperative learning approach. Bandura’s perspective has been researched extensively. Accordingly, his theory has been supported by researchers and teachers who implemented it (Johnson, Johnson & Smith, 1998).
1.4.4 Motivational theory

The research questions that this study addresses are particularly relevant to the theory of motivation. Motivation, as defined by Gardner (1985) consists of four main elements: the goal, the effort, the willingness to reach the goal and the learning attitudes. Moreover, Bandura (1977) argued that motivation boosts the desire and will of the learner to accomplish a specific task. Similarly, Nguyen and Nguyen (2018) claimed that once a learner is motivated, participation will be intensified throughout the learning process. Student engagement in the classroom increases motivation and consequently promotes positive attitudes towards learning. It also should be noted that student behaviors, thoughts and emotions are contagious (Ellis & Dryden, 1997). That is, students tend to emulate one another in classrooms where cooperation is emphasized (Ellis & Dryden, 1997). As a result, the positive attitude of one member of the group will have a positive effect on the attitudes of the other group members. Slavin (1983) found that 63% of the studies conducted on cooperative learning have highlighted a positive effect of this approach on students’ learning and engagement. Thus, according to Slavin (1995) “when students work together toward a common goal, as they do when working cooperatively, they encourage each other’s learning” (p.16).
Chapter Two

Literature Review

This section presents the literature relevant to the study. The aim of this study is to explore the effects of cooperative learning on student’s attitudes and academic achievement. The following literature review was constructed by searching for scientific research papers on Google Scholar web and other search engines. Accordingly, this chapter presents an extensive literature review of the themes that resulted from a thorough search of the existing literature. These themes are: Definition of Cooperative learning, History of Cooperative Learning, Cooperative Learning and Education, Research on the Effectiveness of Cooperative Learning, Cooperative Learning and Social Cohesion, Cooperative Learning and Its Positive Impact, Negative Impact of Cooperative Learning, Think-Pair Share, Implementing Cooperative Learning method, the Case of Lebanon. Also, this chapter addresses the benefits of the cooperative learning methods and how these instructional strategies should be integrated within the school curricula as well as other school activities.

According to Ajaja, and Mezieobi (2018), “Social studies is an integrated subject that is geared towards equipping an individual with basic knowledge, skills, attitudes, and values needed in guiding him/her in solving personal and societal problems” (p. 2). Moreover, Singh (2004) notes that social studies aids students in understanding their world; thus, they become responsible citizens.

Singh (2004) suggests that there are three main objectives in teaching social studies. The first one is to make students aware of their human interaction in and responsibility towards their society. Secondly, the subject-matter of social studies helps students discover different scientific
and technological advances and cope with them. Thirdly, students are able to understand the cultures and norms of different societies. Therefore, they recognize the importance of social communication between societies.

Accordingly, Rice and Wilson (1999) emphasize that teachers who teach social studies must apply cooperative learning in the sense that it helps students construct their own concepts and relate them to real life experiences.

2.1 Definitions

2.1.1 Definition of Cooperative Learning

Cooperative learning denotes an instructional method by which learners are the main source of information (Johnson, Johnson, & Smith, 2007). Students work with the teacher in order to help each other in the learning process (Johnson, Johnson, & Smith, 2007). Thus, it comprises student-student interaction while working on a specific task, as noted by Heba and Nouby (2008).

Therefore, this approach is a strategy that teaches through student interaction (Mehta & Kul Shrestha, 2014). Dyson and Casey (2016) define cooperative learning as “an equity educational pedagogy more inclusive for the teacher and more inclusive for all students as equal participants in learning” (p. 8). Principles and techniques help students work together more effectively (Jacobs, Power, & Loh, 2002).

In summary, cooperative learning does not only denote student-student interaction, but also, as Jacob (2004) notes, “… conscious thought goes into helping students make the experience as successful as possible” (p. 2).
2.2 History of Cooperative Learning

In reference to the field of education “Johann Amos Comenius (1592-1679) emphasized that students benefit when working cooperatively both, by teaching and being taught by other students” (Pedersen & Digby, 2014, p. 86). To emphasize this point, Ning (2010) states that “Cooperation has been an essential strategy for survival and development throughout human history” (p.16). Accordingly, in England, Joseph Lancaster and Andrew Bell tried to apply the cooperative learning style in schools. Furthermore, it was applied in the Lancastrian School in New York (Johnson & Johnson, 2005). Thus, Colonel Francis Parker then spread the theory throughout American public schools (Johnson & Johnson, 2005), which in turn had spread to America by 1806.

In the later nineteenth century, Colonel Francis Parker highlighted the importance of the connection between democracy and the implementation of cooperative learning (Johnson & Johnson, 2005). As a result, further research was being conducted to improve cooperative learning techniques (Slavin, 1991). In the early twentieth century, the cooperative learning approach continued to spread within schools, guided by John Dewey (Ning, 2010).

2.2.1 Cooperative Learning and Education

According to Slavin (1995), “Cooperative learning has an ancient pedigree. Since the dawn of time, teachers have allowed or encouraged their students to work together on occasional group projects, group discussions, or debates” (p.ix). In other words, the cooperative learning approach has been used since the beginning of time, as this approach was found to have many benefits (Slavin (1995).
Thus, many teachers apply it in their classes since it is applicable at all grade levels and in all subjects. Kagan and Kagan (2017) add that it is applicable in every classroom and on all tasks regardless of the subject or the grade level. As Krol-Pot (2005) states, “Students will help one another because they care about the other group members, want one another to succeed, and thus want to participate in a cohesive team (p. 24)

In addition, Webb (2008) notes that applying the cooperative approach will help teachers since related activities can have a positive effect on teachers’ lesson plans and in keeping students engaged. To conclude, cooperative learning does not only enhance students’ social skills (Siegel, 2005), but also provides the teacher with an important role for creating a learning environment where all students thrive (Bada & Olusegun, 2015).

2.3 Research on the Effectiveness of Cooperative learning

Several studies have shown that the implementation of cooperative learning in the classroom has resulted in positive outcomes on both students’ achievement and their motivation to learn. For example, Akhtar (2012) conducted a study on students’ attitudes towards cooperative learning. The findings showed that students had positive attitudes towards this method. Other similar studies also showed that the use of this strategy enhanced students’ motivation. Researchers found that cooperative learning was an effective method of teaching because with the guidance of a teacher, the students are able reorganize the material then sort out its different concepts/ideas by prioritizing them based on importance in order to build on them (Hänze, & Berger, 2007; Wyk, 2012).

Several studies examined the effect of cooperative learning on students’ outcomes and achievement in specific subject matter. For instance, Lavasani and Khandan, (2011) conducted a study on students’ achievement and attitudes in Math when cooperative learning was implemented.
The findings showed positive effects on both students’ achievement and attitudes (Lavasani & Khandan, 2011). In fact, students’ attitudes and achievement improved in relation to mathematics and mathematical concepts after the implementation of cooperative learning. Several studies concurred on the effectiveness of the cooperative learning process. Thus, teachers should consider this method as their preferred teaching strategy (Titsankaew, 2015; Zakaria, Chin & Daud, 2010). Other studies showed the same positive effects in science classes (Killen, 2007). In addition, Artut and Bal (2018) emphasized that cooperative learning does not only help the students academically but also enhances their capabilities to solve daily life problems (Chan & Idris, 2017).

With regards to social studies, similar positive results were found in implementing cooperative learning. That is, this approach contributed to strategies since the latter helped in enriching performance and enhancing their learning outcomes (Toklucu & Bayram, 2016). Moreover, Adeyemi (2008) argued that implementing cooperative learning in social studies to better academic learning. Thus, successful understanding of social studies concepts can be achieved through the implementation of cooperative learning (Borich, 2011).

Johnson, Johnson, and Smith (1998), stipulated that there are three different types of cooperative learning strategies: cooperative, formal, and informal. The first type of cooperative learning is cooperative-based. This type is typically implemented for about a year and tackles a specific learner in order to develop his/her social skills and allow him/her to advance academically (Johnson et al., 1998). On the other hand, in the formal cooperative learning type, the instructor supervises and divides the students into groups of three to five using random sampling. The duration of the formal cooperative learning type, the period varies from one to several weeks in order to achieve the shared goal and complete the end task. The last cooperative learning type is
the informal strategy. This method and its implementation do not last long since students only discuss questions the teacher puts forth. An example of this type of strategy is Think-Pair-Share, which will be discussed in detail in the upcoming section of this literature review.

In sum, cooperative learning is an approach implemented in schools across different subject areas, that approach helps students acquire social skills while achieving specific learning outcomes (Gillies, 2016).

2.4 Cooperative Learning and Social Cohesion

Applying cooperative learning encourages socialization between students as argued by Gilles (2014), which affects students positively. In other words, students will be positively engaged through socialization with each other. As a result, the cooperative learning approach develops interpersonal skills (Johnson, Johnson, & Stanne, 2000). More to the point, Zsoldos-Marchis (2014), Dyson and Rubin (2003) state that students develop social skills through cooperative learning tasks while working and cooperating in groups. A study conducted by Dollman, Morgan, Pergler, Russell, and Watts (2007) showed that by implementing the cooperative learning approach, an improvement in social skills was evidenced among students.

Furthermore, through cooperative work, students are able to listen to each other and participate with one another (Tarim, 2009). Cooperative work through the daily application of the cooperative learning approach develops social skills (Johnson & Johnson, 2006). Palacios and Chapetón (2014) note that cooperative tasks applied in classrooms “are related to students’ real lives, thus they feel motivated, committed, and willing to take an active part in the class as it becomes enjoyable and meaningful” (p. 27).
On the other hand, some researchers state that it is quite beneficial to apply cooperative learning tasks in classrooms as they help students in their daily lives. According to Tudor (2001), “Communication in the classroom was the preparation for communicative language outside the classroom” (p.113). In addition, Webb (2009) emphasizes the importance of this approach. A beneficial learning outcome deals with an active classroom where both teachers and students interact with each other (Freire, 2002).

As a result of applying the cooperative learning approach in classrooms, students’ academic achievements increase, interpersonal skills among group members develop, and student’s self-esteem evolves (Slavin, 1995). Altun (2015) notes that students learn through interaction; thus, they will be able to express their opinions more freely. Accordingly, Habidi, Widiati, and Soetjipto (2017) argue that through cooperative work, social cohesion is developed among students.

2.5 Cooperative Learning and Its Positive Impact

Cooperative Learning is conceptualized as not only an instructional technique that increases students’ achievement, but also a technique that generates a happy, pro-social atmosphere in the classroom (Slavin, 1995). Along the same line, Slavin (1995) highlighted the main advantages of cooperative leaning. These advantages include the following: students are motivated to learn, there is social cohesion among themselves, and finally promote cognitive elaboration between classmates working with each other (Slavin, 1995). In cooperative learning, the learner is engaged in cognitive restructuring when retaining new information and relating information already present in memory.
Marzano, Pickering and Pollok (2001), indicated that cooperative learning is considered powerful and flexible model compared to all other classroom-teaching strategies. In addition, Brown and Ciuffetelli (2009) described the cooperative learning method as a powerful tool across different subjects that fosters a positive environment, enhances a better attitude, and aids in promoting social support between peers through cooperative tasks. This may due to the concept that the human brain acknowledges collaboration, through social interaction (Gregory, 2016). That is, a result of cooperation between people, a neurotransmitter called dopamine is released. This neurotransmitter is responsible for attention, memory storage, and knowledge. The higher the increase in dopamine, the better the understanding of ideas and concepts (Gregory, 2016). Consequently, a positive learning experience results from positive social interaction (Gregory, 2016). Indeed, research in cognitive psychology has found “that if information is retained in memory and related to information already in memory, the learner must engage in some sort of cognitive restructuring, or elaboration, of the material” (Wittrock, as cited in Slavin, 1995 p.18) leading to better learning.

Kagan (2017, p.3.1) noted that “Cooperative Learning is the most extensively researched educational innovation of all time.” Additionally, Johnson, Johnson, and Stanne (2000), also argued that cooperative learning is the most practiced and researched topic in the field of education. As a result, many studies have shown that the cooperative learning strategy is superior to traditional learning methods in terms of better learning knowledge and outcomes (Tran, 2019; Yassine & Razzik, 2017). Moreover, it is worth mentioning that research in the field of education has recognized that cooperative learning is one of the most successful pedagogies that help in students’ academic achievements. (Gull & Shehzad, 2015). Similarly, Tjosvold, Marine, and Johnson (1977)
found that students learn in a positive and enjoyable environment when implementing different cooperative learning strategies.

Furthermore, Crandall (1999) noted that when students work cooperatively it would help them be more motivated. Intrinsic motivation can be achieved when implementing the cooperative learning strategy due to the fact that students enjoy working with others to reach a common goal. (Ning & Hornby, 2014). In other words, implementing the cooperative learning approach triggers motivation. Similarly, Tsay and Brady (2010) stimulate that the cooperative learning technique engages students; in addition, it helps them achieve better learning outcomes. Along with the same line, Shimazoe and Aldrich (2010) highlighted the benefits of the cooperative learning approach when implemented in the classroom. The first benefit of the cooperative learning is the diverse educational tools that could be used in the learning process. The second benefit is that students are able to attain better grades through cooperative learning in comparison to competitive and individual learning.

Based on all the before mentioned studies, it can be argued that research has confirmed that implementation of cooperative learning methods enhances student’s attitudes and achievement while pursuing a common goal. In addition, according to Melihan and Sirri (2011) teachers who implement cooperative learning in their classrooms will observe more positive results in their students’ achievement. As Sapon-Shevin, and Schniedewind, (1992) observed: “Cooperative learning is necessary in any teaching-learning situation, because this particular strategy can foster educational excellence for all children regardless of race, class, or gender, and can provide students and teachers with the experience and expectations of active participation in controlling and changing the spheres of their lives” (p.32). Therefore, one can deduce that classroom involvement
and high performance can be expected when cooperative learning is implemented in the classroom (Zulfiqar & Alvi, 2019).

2.6 Negative Impact of Cooperative Learning

It is significant to note that Slavin (1986a) highlights that while applying the cooperative learning approach, teachers might face some problems, such as students’ failure to get along during the assigned tasks, students’ misbehavior, high class noise-level, and academic achievement discrepancy among students.

First and foremost, failure to get along, as described by Slavin, might be a problem that teachers face while implementing the cooperative learning approach. Some students are incapable of working cooperatively with their peers/fellow students as they come from different cultural backgrounds, ethnicity or perhaps simply dislike one another, which can be an impediment. Slavin (1986a) notes that the solution to this problem can be managed with time since students get used to each other. Teachers must play an effective role to help these students by reminding them to work cooperatively. Moreover, if the teacher perceives that the problem is not solved, she/he must switch peers and fellow students every now and then (Slavin, 1986a).

Second of all, students might misbehave by simply refusing to be cooperative with their peers/fellow students, resulting in certain turbulent behavior. The ultimate solution then is creating a “group-based positive reward system” (Slavin, 1986a). Thus, “The teacher needs to define clearly and in advance those behaviors that are necessary for successful classroom functioning and that these behaviors are appreciated.” (Slavin, 1986a, p.134).

Third of all, a noisy class is another possible problem a teacher might face while applying the cooperative learning approach in the classroom. The solution to this problem is to control the
class noise-level. It is the teachers’ responsibility to stop the cooperative tasks as soon as she/he
notices that the noise level is high. Students should be reminded to speak in a low-voice (Slavin,
1986a). The teacher must apply classroom management skills (Slavin, Hurley, & Chamberlain
2003). Another solution is giving one student the responsibility of monitoring the classroom’s
noise level (Jacob, & loh, 2003).

Last but not least, comes the problem of the achievement gaps among students, as noted
by Jacob (2004). Classrooms are filled with students that are of heterogeneous academic levels.
Therefore, the teacher should be well-aware of that discrepancy, thus making sure that pairs or
groups are diverse when assigned or distributed. Having at least one high achieving learner per
pair or group to help the low achiever(s) is one possible way of solving such an issue.

2.7 Think-Pair-Share Strategy

The Think-Pair-Share learning method motivates students to learn as they become
increasingly engaged in the process of learning (Hetika, Farida, & Sari, 2017). Many advantages
of the Think-Pair-Share are presented in the literature (Marzano & Pickering, 2005). For example,
the Think-Pair-Share is fast, requires minimal preparation time, as it allows instructors to ask
different types of questions. Implementing this strategy aids in engaging the entire class and gives
quiet students the chance to answer questions without standing out alone due to pair work. In
addition, Kusrini (2012) stated that a strong point of the Think-Pair-Share model is that it increases
students’ participation as they are given time to think and share their ideas with their peers. Think-
Pair-Share model is also known to enhance motivation and in turn improve the students’ written
texts significantly through discussion, organization, and generation. It can also assist and
encourage the students to become actively involved in the learning process (Svinicki & James,
2011; Sugiarto & Sumarsono, 2014; Raba, 2017). Additionally, the implementation of Think-Pair-
Share helps in improving student’s self-concept, self-awareness, and self-confidence (Millis & Cottel, 1998). For instance, Li and Lam (2005) highlighted that Think-Pair-Share strategy focuses on projects, social issues, and discussions that tackle specific contents. Slandanini (2012) noted that there are various cooperative learning strategies that are more practical and effective than others like Think-Pair-Share, which is one of the widely used strategies. Another major point of strength is the open-ended or close-ended questions of multiple difficulty levels posed by the instructor (Lyman, 1981).

Moreover, Lyman (1981) argued that this strategy helps in engaging students though improving their participation and boosting students’ motivation. Similarly, Jones (2008) stipulated that this method is a collaborative strategy as students discuss their ideas together. Thus, Think-Pair-Share helps students work in a cooperative environment, as they share ideas with their peers (Pimm, 1987; Usman, 2015).

Kagan (1994) noted that applying this strategy in classrooms requires simple steps. First, a group of four students listen to a question asked by the teacher. Then, students are given time to think and write their answers individually. Next, students read and discuss their responses in pairs. As a final step, the teacher calls upon some students to share their thoughts and ideas with the whole class (Alrayah, 2018). Simon (2013) noted that when using this strategy, students have some time to think, formulate and share new ideas, which promotes their thinking.

Another advantage of the Think-Pair-Share method is that it improves collaboration and communication between students (Lee, Li, & Shahrill, 2018). One study, Sampsel (2013) found that the implementation of Think-Pair-Share increased students’ participation and their comfort level while sharing thoughts and ideas with their peers. According to Cobb, Wood, Yackel, Nicholls, Wheatley, Trigatti, & Perlwitz, (1991), students become more responsible when they
share their ideas with each other through the Think-Pair-Share strategy. Thus, Think-Pair-Share cooperative learning model is considered one of the most effective models adopted as it encourages students to work in pairs and individually simultaneously (Razak, 2016).

According to Awaid and Abood (2014), the use of Think-Pair-Share strategy was found to be effective in chemistry classes during the first year of Middle School. The study showed an increase in students’ academic performance as well as in their motivation after the implementation of the above-mentioned strategy. In a similar study was also conducted by Bamiro (2015) in secondary chemistry class the results showed that implementing the Think-Pair-Share strategy resulted in an increase in students’ academic performance.

Similar results were obtained in math teaching (Althelab & Omar, 2013). Undoubtedly, the cooperative learning process has positive effects on teaching and learning scientific skills (Chatila, & Al Husseiny, 2017).

2.8 Implementing Cooperative Learning Methods

From the administrative perspective, implementing this strategy in classrooms can positively aid in changing the quality of the institution’s educational system as noted by Sukhanova and Eliseeva (2019). The Think-Pair-Share strategy provides any academic institution with strong foundations that are important for the students’ professional development. Moreover, such methods provide learners with the ethical communication skills needed for learning and sharing (Campbell & Zegwaard, 2011). In addition, implementing this approach successfully shapes up students who learn actively as it indirectly increases their confidence as well as the effectiveness of the learning process. (Campbell & Zegwaard, 2011)
Goodyear, Casey, and Kirk (2014) argued that school-based learning institutions should be developed with the main focus on the learners’ needs in mind. Therefore, although the continuous development of the curriculum is a complex task, it is crucial that every teacher integrates the cooperative learning technique in his /her classroom(s) (Shawer, 2010). Cooperative learning provides effective means to help support the development of any curriculum (Goodyear, 2017). That is, the academic institution that chooses to implement the cooperative learning strategy promotes development of an effective curriculum. Murphy and Cifuentes (2001) stipulated that when students work cooperatively in a class in order to achieve a specific goal, they will learn to accept each other; a skill needed to succeed in their future careers.

Brown and Mezieobi (2017) highlighted that the implementation of the cooperative learning approach will eventually enhance good citizenship, especially when implemented in Social Studies classrooms. In addition, Yoruk, (2016) noted that the social skills gained in class through the implementation of Think-Pair-Share are important as they will benefit students in their future lives. Hence, academic institutions are responsible not only to teach students different subjects and help them develop critical thinking, but also more importantly academic institutions must prepare students to be good citizens who are able to make positive changes in their societies (Dewey, 1966).

In conclusion, cooperative learning provides schools with significant advantage. Indeed, this approach allows schools to change the way in which lessons, instruction and education is delivered (Sapon-Shevin, 1994). The ultimate goal should not be to simply implement cooperative learning while leaving intact the underlying beliefs, structures, and outdated practices of teachers, parents, administrators, and students (Sapon-Shevin, 1994). Rather, the goal should be for schools to view
cooperative learning as a catalyst force that reinvents schools in order to attain social and educational equity and justice (Sapon-Shevin, 1994).

2.9 The Case of Lebanon

Globally Lebanon ranks 4th in science and math education and 10th in overall quality of education, and (Bilbao-Osorio, et al., 2013). The United Nations Human Development Index 2014, reported that public education expenditure as percentage of GDP is 1.65 in 2014 (United Nations Development Programme, 2019). The majority of the students are in the private schooling system (United Nations Development Programme, 2019). There are many challenges and gaps that exist in the Lebanese schooling system in general and in the public school sector in particular (Baroudi & Hojeij, 2018).

When it comes to teaching the most commonly used teaching style is the lecture-based teaching approach (Jabbour, 2013). This teaching style has been applied in most classrooms for the past 50 decades. It can be argued most teachers rely on lecture-based method because two reasons: one being that most school classes are overcrowded and the second being that teachers do not have experience and are untrained on other teaching strategies (Jabbour, 2013). Yet it should be noted that this is also the case in many countries around the world as evidenced by existing literature.

Even though there is scarce data some studies show that diverse of teaching styles have been increasingly used over the past couple of years and that some teachers are shifting away from the traditional lecture-based methods (Sabeh, Bahous, Bacha, & Nabhani, 2011; Akar, 2019).
Chapter Three
Methodology

This section presents the research methods used in this study. The two orthodox research paradigms, qualitative and quantitative, which constitute the mixed method approach, are detailed in this section.

3.1 Research Design

The aim of the present study is to explore the effect of cooperative learning on students’ attitudes and their academic achievement. The design adopted by this study followed a mixed method approach. Questions on students’ and administrative officers’ attitudes towards cooperative learning were answered through the qualitative data collected via interviews and focus group discussions. As for the academic achievement of students, quantitative data collected from students’ pre-post assessment grades were used.

Data collection followed the triangulation approach, by which data was collected from three different sources to answer the research questions. The three methods employed were focus group discussions, interviews, and comparison of students’ pre-post assessment grades. To investigate students’ attitudes towards cooperative learning, each participating class had a one-hour focus group discussion, allowing students to express their opinions on the instructional methods implemented in their social studies instruction (see Appendix A for discussion questions). To assess administrative officers’ attitudes, a semi-structured interview was conducted with each of the principal, assistant principal, and two coordinators (see Appendix B for interview questions). Finally, to assess student achievement, pre-post achievement data was analyzed by comparing students’ grades before and after the implementation of the cooperative learning technique used.
3.2 Sampling

The sample in this study consisted of students in grades 6 to 8, recruited from a school in Mount Lebanon. The total number of participants is 60 boys and girls. Their ages ranged between 11 and 14. The student distribution is as follows: 22 in grade 6, 16 in grade 7, and 22 in grade 8. As evidenced by the school’s tuition fees and the students’ place of residence, all the students who participated in this study are from families classified as low to middle socio-economic classes. The sample is purposeful, meaning that the participants were not randomly selected but were deliberately selected from their school, where the principal investigator serves as a teacher of Social Studies.

In addition, the sample included four administrative officers: the school’s principal, assistant principal and two coordinators who would be invited to observe the implementation of the Think-Pair-Share instructional method in the classroom. Each of the before mentioned administrators would be interviewed individually.

3.3 Instruments

3.3.1 Interview

As noted previously, a semi-structured interview was conducted for the qualitative data. This type of interview allowed a focus on the educational and personal histories of the sample group (Barriball & While 1994). Blee and Taylor (2002) have noted that it has numerous benefits, especially in social movement studies. In addition, as argued by Kajornboon (2005), the semi-structured interview can highlight deeper information in certain situations. Moreover, Creswell (2003) noted that using semi-structured interviews allows the interviewer the opportunity to pose additional questions, leading to a flexible and comprehensive interview. In addition, semi-
structured interviews encourage the interviewer to take a more interactive role in the discussion of the points raised, which in turn allows space for new themes to emerge, and thus covers holistically information about the researched subjects (Richie & Lewis, 2003). Finally, such interviews are known to make interviewing more systematic and comprehensive, as opposed to structured interviews (Creswell, 2003). As a result, this will contribute to collecting answers and data that are needed by the interviewer to cover all aspects of the topic (Richie & Lewis, 2003).

3.3.2 Focus Group Discussions

Focus group discussions were used to collect qualitative data from students’ feedback before and after the implementation of Think-Pair-Share. Focus group discussions provide a compromise between a structured questionnaire and in-depth methods such as one-on-one interviews. They capitalize on group dynamics as a basic tool in generating data. Furthermore, they rely on facilitating and creating a natural group environment in which participants feel at ease to disclose information (Krueger & Casey, 2000).

With the data being collected directly from the respondents’ using this technique, researchers obtain a direct response (Powell & Single, 1996). In addition, another characteristic of focus group discussion is that data can be collected quickly (Richie and Lewis, 2003). This tool is used to determine reasoning behind actions and attitudes, and that is why it was used in this study to assess attitudes of students and school administrators towards cooperative learning (Carey, 1995).
3.4 Procedure

Before starting the study, I sent a hard and soft copy of my study proposal to the Institutional Review Board (IRB) along with all the needed forms. The approval after five working days.

I contacted the four school administrators by phoning them and explaining the purpose of this study. The face-to-face interviews were scheduled right after. The interview was conducted at the offices of the chairpersons concerned and took around 25-30 minutes each.

As for the FGDs, the students’ parents were contacted to give their consent for their children to take part in this study. After getting the parents’ consent, the FGDs took place during recess. The three FGDs took place on three consecutive days.

3.5 Data Collection and Analysis

Data collection lasted four months, divided into two months intervals. During the first two months, the lecture-based method was used followed by the TPS approach in the latter two months. The sample consisted of 60 mixed-gender grade six, seven, and eight students, selected from a private school in Mount Lebanon.

In this study, the interview and the focus group discussions consisted of open-ended questions that allowed the respondent freedom of expression; i.e., different issues were brought up and discussed, specifically the ones that mattered most to the respondents (Yauch & Steudel, 2003). It should be noted that the interview questions and the questions for the focus groups were edited and adjusted in order to ensure validity and reliability. Moreover, the questions were piloted beforehand to ensure credibility.
3.5.1 Mixed method approach

The study took four months of duration, divided equally into two periods of two months each. During the first two months, the lecture-based method was used for instruction, after which students were administered an exam on the material that was covered during that period. Then, during the next two months, the Think-Pair-Share instructional method was implemented. At the end of that two-month period, students were given another exam to assess their knowledge of the material covered during those two months. The same type of exam, with the same level of difficulty, was used in both assessments. Both tests consisted of five multiple-choice questions, five open-ended questions, and a short essay. In addition, the same teacher (the principal investigator of this study) was the instructor in both cases.

To assess students’ attitudes towards the Think-Pair-Share method, three focus group discussion sessions were held, one for each grade level, each spanning over one hour. The three sessions were recorded after the permission (verbal) of all the participants. All the focus group discussions were transcribed. To investigate the administrative officers’ perceptions of the Think-Pair-Share method, the four school officials were invited to attend class during the implementation of that method. Each administrator attended separately and at different time, following which a short semi-structured interview was conducted with each one of them individually.

The mixed-approach has numerous purposes. It seeks triangulation, examines a phenomenon from different perspectives, develops methods sequentially, points out the contradictions in and similarities of perspectives, and lastly adds scope to a study (Greene, Caracelli & Graham, 1989). The triangulation approach is employed when the same study combines different research methods (Jick, 1979). Jick (1979) notes that the benefits of this
approach lie in the fact that the weakness of one method could be compensated for and strengthened by another. Moreover, this approach can deal with the limitations of the study and strengthen the research (Bergman, 2011).

In this study, the mixed approach was adopted using both qualitative and quantitative approaches in data collection. Collecting data for mixed method research projects, as pointed out by Bartholomew and Brown (2012) requires a longer period and different data collection phases due to the distinctions between the two approaches.

Creswell (1994) defines quantitative research as a positivist methodology that establishes “cause and effect”. This study clarifies the causes of the implementation of the Think-Pair-Share method and its effect on students’ academic performance using the paired t-test. In this type of research, data findings show the correlation between given variables and outcome. In this study, the independent variable is the Think-Pair Share method, and the dependent variables are the test grades and student attitudes towards the implementation of this cooperative learning strategy. The findings should be valid and other research could show similar findings by independently repeating the analysis, as noted by Dudwick, Kuehnast, Jones, & Woolcock, (2006). The numerical outcome in the quantitative approach helps compare organizations or groups, which in turn helps the researcher reach agreement or disagreement between the different respondents (Yauch & Steudel, 2003).

For qualitative research, Merriam (1988) identifies six assumptions. Since the process is more important than the outcome, researchers pay attention to the perceptions of the participants and how they act and interact with the subject matter. With the data being collected and analyzed by the researcher, she/he becomes the primary instrument. Fieldwork, dependent on the places and people visited, becomes another assumption in qualitative research. Data description was
implemented by this research. Inductive reasoning that serves in building concepts and hypothesis from details was also required in this study.

Thus, it can be argued that the findings of the qualitative research must be trustworthy and must not be biased. In other words, qualitative researchers aim to ensure ‘trustworthiness’ of the findings, by taking into consideration personal biases which may affect the findings of the study (Morse, Barrett, Mayan, Olson, & Spiers, 2002). Lincoln and Guba (1985) add that there are four main elements that must be taken into consideration when conducting qualitative research: it must be applicable, consistent, neutral and have a true value. In each study, researchers should establish the protocols and procedures necessary for the study to be considered worthy of consideration by readers (Amankwaa, 2016).

3.6 Ethical Consideration

Throughout this study, rigorous ethical standards of research will be followed. Before data collection IRB approval will be secured. At first, the school principal will receive a copy of the purpose of the study and the procedures that will be implemented for data collection. The administrative officers will be given a consent form describing the purpose of the study and their rights as participants in the study before being interviewed. Confidentiality will be preserved; thus, no names will be mentioned anywhere in this study.

This chapter presented the methodology used to conduct this study. A mixed method approach was used to gather qualitative and quantitative data to answer the three research questions. The next chapter is based on the results from those interviews and documents analysis.
Chapter Four
Results

This chapter presents the results of analyzing data findings of the study collected from four interviews conducted with school administrators, 3 focus group discussions with students and a quantitative comparison of students’ grades before and after the implementation of cooperative learning.

4.1 Interview Findings and Results

4.1.1 Results of the Interviews

4.1.2.1 First Interview Question: What is your overall assessment of the Think-Pair-Share method of teaching?

The interviewees noted that the Think-Pair-Share strategy is a simple strategy that could be applied in classrooms easily. The Think-Pair-Share is one of the methods of cooperative learning that can be easily applied in classrooms. Another point raised by the interviewees is that Think-Pair-Share strategy helps in engaging students.

4.1.2.2 Second Interview Question: What did you think of the students’ behavior in the classroom?

The Principal as well as his Assistant noted that implementing the Think-Pair-Share strategy helped in engaging the students, whereby students worked together and discussed ideas in order to find a solution to the teacher’s question.
4.1.2.3 Third Interview Question: What is your opinion of the general classroom climate?

The Principal and his Assistant mentioned that the general climate of the classroom while implementing the cooperative learning strategy entitled Think-Pair-Share engages students and motivates them to work. There was a consensus between them that the climate was positive in general. On the other hand, the two coordinators brought up two important points. The first point they raised was that teachers might face problems such as chaos and inability to manage all the students while implementing the cooperative learning strategy, Think-Pair-Share. The second point they brought up was that some teachers might not be able to control the class while using the cooperative learning strategy, so this too might cause chaos and noise in the class. Additionally, teachers must explain to the class that while implementing Cooperative Learning, the class may be noisy, but students must be able to work in an acceptable noise level. Furthermore, when the teacher wants to stop the cooperative learning task, students must listen attentively, going back to the Zero-Level signal. Finally, they should all share their answers together as active listeners to their classmates.

Another point mentioned by one of the interviewees is that while working cooperatively, some students might rely on their classmates to work and find solutions while doing nothing and making no effort at all. One of pitfalls of cooperative learning is this “free rider effect”.

4.1.2.4 Fourth Interview Question: Would you recommend the Think-Pair-Share method of teaching to other teachers?

The interviewees mentioned that this strategy has its advantages and disadvantages. To ensure the advantages, teachers must make sure to avoid the disadvantages by implementing certain principles in order to avoid them. There are several basic principles that must be adopted
while implementing the cooperative learning strategy in order to boost motivation of students and improve academic performance.

To summarize, all interviewees agreed that, implementing the Think-Pair-Share strategy could boost student motivation and enhance their academic performance. They all were of the thought that the Think-Pair-Share is a simple and easy strategy that could be applied easily with simple steps.

4.2 Focus Group Discussions Findings and Results

The focus group discussions were used to collect qualitative data from students’ feedback after Think-Pair-Share was implemented in their classrooms. Focus group discussions are considered a middle ground between structured questionnaires and in-depth methods, such as one on one interviews. FGDs were used as they capitalize on group dynamics while ensuring that students feel at ease to answer the questions in a “safe” group environment.

Three FGDs were conducted, one with 6th graders (22 students), one with 7th graders (16 students), and one with 8th graders (22 students). Prior to starting the FGD, the students were informed that the FGD would be voice-recorded. After that, each FGD was transcribed by the principal investigator.

4.2.1 Results of the Focus Group Discussions (FGDs)

In this study, the focus group discussions were conducted to show the effects of the implementation the Cooperative Learning strategy Think-Pair-Share on students from three different grade levels. After thorough analysis of the transcripts of the three focus group discussions conducted, the following five main themes emerged:
(1) Cooperative learning, the student-centered learning style, helps students learn in a positive classroom climate.

(2) Cooperative learning allows the formation of a cooperative environment, through peer contribution and social interaction.

(3) Cooperative learning contributes to the development of social skills.

(4) Cooperative learning fosters the development of a sense of responsibility among all students.

(5) The noise-level during Cooperative Learning must be managed.

Students volunteered their time, about 60 minutes, to discuss the effect of the Cooperative Learning strategy Think-Pair-Share in focus group sessions, which were conducted during recess. Participants were from grades six, seven and eight. Three discussion groups were conducted, one for each grade level. The same interview questions were used for each focus group, regardless of the gender composition of the class or the grade level. Prior to starting a FGD, the principal investigator explained the rationale for and value behind the focus groups discussions. In addition, the participants were informed that the FGD would be voice-recorded and transcribed and that their responses would remain anonymous. A detailed transcript of the three FGDs can be found in Appendix D.

4.3 Results of the Quantitative Data Collected

4.3.1 Description of Quantitative Data Collection

Data collection took place over a period of four months in three Social Studies classes. Four exams were prepared and administered, with students taking the first two exams at the end of each month when lecture-based teaching was used and the next two exams after each of the two months in which Think-Pair-Share was implemented. The students have two sessions of Social
Studies per week for each class, and the duration of each session is 55 minutes. The same type of exam, with the same difficulty level, was used in all four assessments. All the exams consisted of five multiple choice questions, five open-ended questions and a short essay. All these exams were checked by the academic coordinator to ensure their validity and reliability.

Data collection commenced after obtaining the approval of the Institutional Review Board (IRB) at the Lebanese American University on November 18, 2019. Primary data was collected for this study. In addition, data collection abided by all the ethical principles of the Belmont Report.

Holt books were used in all social studies classes. For grade 6, the Social Studies book is titled *Introduction to Geography*; with chapter one entitled “A World Geographer”. The first section (“Studying Geography”) of this chapter was taught in November, using the lecture-based method. At the end of November, the students were assessed by an exam. Section 2 (“Geography Themes and Essential Elements”) of the first chapter was taught in December using the lecture-based method and an exam was also prepared and administered. Data collection was done routinely after the correction of both exams.

At the beginning of January, the Think-Pair-Share strategy was implemented. During that month, Section 3 (“The Branches of Geography”) of the first chapter was covered. At the end of the month an exam was prepared, administered and corrected. After that, the second phase of data collection started. February was the second and last month to collect data after the implementation of the Think-Pair-Share strategy. Chapter two of the book, “Planet earth”, was covered, and at the end of the month, students sat for an exam. This marked the last exam that was included in the data collection.
For grade 7, in November and December, the book title *Southwest and Central Asia*. The chapters covered “The Eastern Mediterranean” were covered respectively using the lecture-based method. After all the material in each chapter was covered, the students sat for an exam at the end of the month. The exams were corrected and the data needed collected. In January and February, the sections on “Syria, Lebanon and Jordan” and “Physical geography the Arabian Peninsula” were covered respectively using the Think-Pair-Share strategy. The students were given an exam at the end of each month. The data collected from the corrected exams served to assess the performance of the students after the implementation of the Think-Pair-Share strategy.

As for grade 8, the Social Studies book is titled *Europe and Russia*. The two sections of Chapter One, “Southern Europe”, were explained during November and December using the lecture-based teaching style. The material covered in each section was assessed by an exam at the end of each month, and data was collected after the exams were corrected. In January and February, the Think-Pair-Share strategy was implemented to cover the last two sections (“Italy” and “Spain”) of the chapter. At the end of each section, the students sat for an exam, and data was collected after the correction of these exams.

4.3.2 Quantitative Data Analysis

Data collection was done in three different classes, grades 6, 7 and 8. Data collection took place over two phases. Phase one was done after the teacher explained two chapters using the lecture-based method. Phase two took place after the Think-Pair-Share strategy was implemented.

At the end of each month and each of the four sections, students’ level of understanding was assessed using a common type of examination that included a combination of multiple-choice questions and open-ended questions. The scores of each student from the exams of the traditional lectures were averaged to have an average and baseline measure for the control sessions. The
scores of each student from the two exams after Cooperative Learning was implemented were also averaged out and served to measure the change in the average after the intervention (implementation of the Think-Pair-Share). The grades and average of each student were treated separately.

Data analysis was carried out using the IBM SPSS Software for statistical analysis. The paired t-test (also called dependent sample t-test) has a 95% confidence interval and a significant level of p-value < 0.05, calculates the difference between paired observations before and after an intervention; and in this case, the performance of the students on exams was compared before and after the implementation of the Think-Pair-Share strategy. The results are presented below.
Table 1: Socio-demographic Characteristics of the Student Sample

<table>
<thead>
<tr>
<th>Grade (Educational Level)</th>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Female</td>
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<tr>
<td></td>
<td>Male</td>
<td>14</td>
<td>56.0</td>
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<td></td>
<td>Total</td>
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<td></td>
</tr>
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<td>Total</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Grade 8</td>
<td>Female</td>
<td>13</td>
<td>59.1</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>9</td>
<td>40.9</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Cumulative Total</td>
<td>Female</td>
<td>36</td>
<td>54.6</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>30</td>
<td>45.4</td>
</tr>
<tr>
<td></td>
<td>66</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

The sociodemographic characteristics of the student sample are presented in Table 1. The total number of students who participated in this study was 66. The largest group of students was that of grade 6 (n=25 students), while grade 7 included the lowest number of students in the class (n=19 students). In general, the number of females was greater (n=36 females, 54.6%) than the number of males (n=30 males, 45.5%). This was the case in grades 7 and 8, where the number of
females was greater than the number of males. However, in grade 6, the number of males was slightly greater (56%).

Table 2: Mean and Standard Deviation of the Dependent variable (Test Scores)

<table>
<thead>
<tr>
<th>Grade (Educational Level)</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean(M)</th>
<th>Std. Deviation (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>25</td>
<td>5.50</td>
<td>20.00</td>
<td>12.7200</td>
<td>3.64100</td>
</tr>
<tr>
<td>Experimental</td>
<td>25</td>
<td>9.50</td>
<td>20.00</td>
<td>17.1400</td>
<td>2.49383</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>9.50</td>
<td>19.25</td>
<td>14.9300</td>
<td>2.64208</td>
</tr>
<tr>
<td>Grade 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>19</td>
<td>7.00</td>
<td>20.00</td>
<td>14.0724</td>
<td>3.38356</td>
</tr>
<tr>
<td>Experimental</td>
<td>19</td>
<td>13.00</td>
<td>20.00</td>
<td>16.7632</td>
<td>2.11061</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>11.00</td>
<td>20.00</td>
<td>15.4178</td>
<td>2.45135</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>22</td>
<td>8.50</td>
<td>20.00</td>
<td>15.2727</td>
<td>3.26043</td>
</tr>
<tr>
<td>Experimental</td>
<td>22</td>
<td>10.50</td>
<td>20.00</td>
<td>16.2386</td>
<td>2.68979</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>9.50</td>
<td>20.00</td>
<td>15.7557</td>
<td>2.95866</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The mean and standard deviation of the test scores in all sessions are presented in Table 2. The students of Grade 8 scored (M= 15.76, SD=2.96) higher than grade 7 (M= 15.42, SD= 2.45). The lowest scoring were the students of grade 6 (M=14.93, SD=2.64). In all classes, the experimental test had a higher score than the control test. The highest difference was in grade 6. The control session students scored a mean of 12.72 (SD=3.64), while for the experimental groups, the mean was 17.14 (SD=2.49).

Table 3: Within-Subjects T- test (Paired Samples Test)

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>(Educational Level)</th>
<th>Paired Differences</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>95% Confidence Interval of the Difference</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Lower</td>
<td>Upper</td>
<td></td>
</tr>
<tr>
<td>Grade 6</td>
<td>Experimental - Control</td>
<td>4.42000</td>
<td>3.32111</td>
<td>3.04911</td>
<td>5.79089</td>
</tr>
<tr>
<td>Grade 7</td>
<td>Experimental - Control</td>
<td>2.69079</td>
<td>2.78742</td>
<td>1.34729</td>
<td>4.03429</td>
</tr>
<tr>
<td>Grade 8</td>
<td>Experimental - Control</td>
<td>0.96591</td>
<td>0.84619</td>
<td>0.59073</td>
<td>1.34109</td>
</tr>
</tbody>
</table>

The third table shows the results of the paired sample test. In the three classes, there was a significant difference (p<0.05) between the score of the experimental and control groups. The former was higher in all three grades. In grade 6, there was a significant difference between the experimental and control groups (t (24) =6.65, p<0.05). Also, there was a significant difference between the experimental and control groups in grade 7, (t (18) =4.21, p<0.05). Finally, there was
a significant difference in grade 8 between the experimental and control groups, \( t (21) = 5.34, \)
p<0.05.
Chapter Five
Discussion

This chapter discusses the findings of this study and compares those findings to those in the reviewed literature presented in the second chapter of this thesis.

5.1 Discussion

As the finding of this study showed, students got a higher grade when the teacher applied the Think-Pair-Share Cooperative Learning approach in Social Studies. As the quantitative data showed, students in the three level grades got better grades than when the lecture-based strategy was being used to explain the material in the three-grade levels in the Social Studies class.

This study was conducted to show the effects of the Think-Pair-Share, Cooperative Learning strategy on student attitudes and academic performance. This study was conducted on students in grades six, seven and eight in Social Studies classes. To examine student attitudes after the implementation of Think-Pair-Share, focus group discussions were held in order to allow students to voice their feedback and their points of view with regards to Cooperative Learning. On the other hand, semi-structured interviews were held with four school administrators in order to evaluate and discuss their points of view on the implementation of Think-Pair-Share after these four administrators observed the implementation of the strategy. Quantitative data was also collected. Students had a total of four tests, as they were tested after the implementation of the two strategies over the duration of the study.
5.1.2 Discussion of Interviews

5.1.2.1 First Interview Question: What is your overall assessment of the Think-Pair-Share method of teaching?

The interviewees noted that the Think-Pair-Share strategy is a simple strategy that could be applied in classrooms easily. This was also noted by Maulida (2017), Think-Pair-Share is one of the methods of Cooperative Learning that can be easily applied in classrooms. Another point raised by was similarly noted by Kartikasari (2014) when he wrote that the Think-Pair-Share is a simple strategy that can help in engaging students.

5.1.2.2 Second Interview Question: What did you think of the students’ behavior in the classroom?

Khaleel and Hamdan (2017) previously emphasize that when applying the Think-Pair-Share strategy, it increases student participation in class. This was also noted by several of the interviewees. They also mentioned implementing the Think-Pair-Share strategy helped in engaging the students, whereby students worked together and discussed ideas in order to find a solution to the teacher’s question.

5.1.2.3 Third Interview Question: What is your opinion of the general classroom climate?

There was a consensus between them that the climate was positive in general. On the other hand, the two Coordinators brought up two important points. The first point they raised was that teachers might face problems such as chaos and inability to manage all the students while implementing the Cooperative Learning strategy, Think-Pair-Share. The second point they brought up was that some teachers might not be able to control the class while using the Cooperative Learning strategy, so this too might cause chaos and noise in the class. This is alignment to what is present on the literature. In his book, Slavin (1995), asserts that while implementing Cooperative Learning, teachers must be able to manage their class, and he called this technique “The Zero-
Noise signal”. Additionally, teachers must explain to the class that while implementing Cooperative Learning, the class may be noisy, but students must be able to work in an acceptable noise level. Furthermore, when the teacher wants to stop the Cooperative Learning task, students must listen attentively, going back to the Zero-Level signal (Slavin, 1995). Finally, they should all share their answers together as active listeners to their classmates.

Another point mentioned by one of the interviewees is that while working cooperatively, some students might rely on their classmates to work and find solutions while doing nothing and making no effort at all. This is one of pitfalls of cooperative learning and it widely mentioned in the literature as well. “ Slavin (1995) asserts that one of the drawbacks of cooperative learning is that one student may do most of the work and while another just sits back and does nothing. Slavin (1995) explains that “the free rider effect in which some group members do all or most of the work, while others go along for the ride.” (p. 19).

5.1.2.4 Fourth Interview Question: Would you recommend the Think-Pair-Share method of teaching to other teachers?

The interviewees mentioned that this strategy has its advantages and disadvantages. As Kagan and Kagan (2017) noted, there are several basic principles that must be adopted while implementing the cooperative learning strategy in order to boost motivation of students and improve academic performance.

The first principle Kagan and Kagan (2017) posit is “positive interdependence”. They explain that when students work together as a team towards one goal, every single member would benefit. As one interviewee mentioned “some students don’t work hard enough and they depend on those with better grades and academic performance to help them”. However, when students
work together to achieve a certain goal, this will help all students to be engaged and find the correct answers (Kagan & Kagan, 2017).

The second principle Kagan and Kagan (2017) note is that students must have “individual accountability”. This principle goes in parallel with the previous idea; every student must share his/her idea with their classmates. This in turn will make every person accountable for his/her own work. As a result, all students will take equal responsibility in the cooperative task.

According to Kagan and Kagan (2017), the third principle is “simultaneous interaction”; as the interviewees mentioned, the teacher must make sure that all students are attentive. As noted, “Teachers might find it difficult and hard to manage the class. I mean the teacher must be able to control the class and manage the noise level so as to be able to benefit from the advantages for the students after the implementation of the cooperative learning strategy.”

Moreover, Kagan and Kagan (2017) note that students must be also active listeners. All students must listen to each another when a student is sharing his/her ideas with the whole class. Therefore, students must be active listeners in order to effectively discuss ideas.

In summary, according to the four interviews that were done with the academic administrators, implementing the Think-Pair-Share strategy could boost student motivation and enhance their academic performance. Think-Pair-Share is a simple and easy strategy that could be applied easily with simple steps. On the other hand, in order to benefit from the implementation of this cooperative learning strategy some basic principles of class management must be followed. Thus, as Kagan and Kagan (2017) emphasize, “The principles are the lynchpin to successful cooperative learning.”
5.1.2 Discussion of the Focus Group Discussions (FGDs)

In this study, the focus group discussions were conducted to show the effects of the implementation the Cooperative Learning strategy Think-Pair-Share on students from three different grade levels. After thorough analysis of the transcripts of the three focus group discussions conducted, the following five main themes emerged:

1. Cooperative learning, the student-centered learning style, helps students learn in a positive classroom climate.
2. Cooperative learning allows the formation of a cooperative environment, through peer contribution and social interaction.
3. Cooperative learning contributes to the development of social skills.
4. Cooperative learning fosters the development of a sense of responsibility among all students.
5. The noise-level during Cooperative Learning must be managed.

Students volunteered their time, about 60 minutes, to discuss the effect of the Cooperative Learning strategy Think-Pair-Share in focus group sessions, which were conducted during recess. Participants were from grades six, seven and eight. Three discussion groups were conducted, one for each grade level. The same interview questions were used for each focus group, regardless of the gender composition of the class or the grade level. Prior to starting a FGD, the principal investigator explained the rationale for and value behind the focus groups discussions. In addition, the participants were informed that the FGD would be voice-recorded and transcribed and that their responses would remain anonymous.
5.2.2.1 Theme 1: Cooperative Learning, a student-centered learning style, motivates students to learn in a positive classroom climate.

All the students in the three grade levels stated that they preferred the Think-Pair-Share cooperative learning technique to the traditional lecture-based teaching style, viewing the teacher-based learning approach as a boring one, since students are required to just sit back, and listen. In the use of such a method, students are not allowed to answer unless they are given permission; as a result, the teacher is the only center of the information. As Mascolo (2009) argues, in teacher-based education, the teacher is the only major source of information in a classroom, and as such the teacher has the full responsibility to lead his/her class. Thus, as students prefer to work cooperatively by applying the Think-Pair-Share strategy, rather than have the teacher apply the lecture-based method. This was highlighted by the students in the FGDs, as they clearly specified that this strategy is much more effective than the lecture-based method. The students also expressed their satisfaction and motivation to learn when the Think-Pair-Share strategy is implemented.

Additionally, the Think-Pair-Share will help students achieve better academic grades. During the focus group discussions, many students also mentioned that they preferred this strategy, because while it is more interesting, it also helps them learn better and in turn get better grades. Similarly, the implementation Think-Pair-Share will help students achieve better grades. To conclude, applying a cooperative teaching style is very helpful to students, especially in social studies classrooms.
5.2.2.2 Theme 2: **Cooperative Learning allows the formation of a cooperative environment, through peer contribution and interaction.**

The data collected from the FGDs demonstrates that all students emphasized preferring Think-Pair-Share because this modality helps them to work cooperatively and share their ideas with the whole class. As students have the chance to express themselves and discuss their ideas, every student has an equal opportunity to participate in the classroom discussion. This in turn will help students to have a voice to express their ideas and enforce a democratic environment in the classroom. Students also favored the cooperative learning strategy because it helped them feel that they have an important role to play in the classroom; each student has the right to participate and his/her voice is valued.

The Think-Pair-Share turns the students from passive listeners into active participants in the classroom. Applying the Think-Pare-Share modality gives every student the chance to participate and to speak up without feeling shy or intimidated. Using cooperative learning in the classroom will also benefit students by building their personalities in order to make them active citizens in society with a high sense of civic duty.

Moreover, students said that they preferred Think-Pair-Share because working in pairs help them to work together to find the right answer.

5.2.2.3 Theme 3: **Cooperative Learning helps gain confidence and develop social skills**

The students emphasized that applying Think-Pair-Share helped them work with each other by allowing them to develop their social skills. Students said that they became active listeners, and in turn active students, whereby they were able to express their points of view while working as a unit to find solutions and discuss ideas. As a result, students felt that they were actively engaged
in the classroom. Therefore students will gain several communication and social skills, which results in developing respect for one another.

Another point student noted is that this modality helped them gain self-confidence because it all share their ideas freely without being shy.

5.2.2.4 Theme 4: Cooperative Learning fosters the Development of a sense of responsibility among all students.

Students reported that during pair work, they felt the need to help each other in order to come up with ideas and solutions. Cooperative learning encourages students to take responsibility not only for improving their own understanding of the given material but also for helping other students understand the given material.

On the other hand, some students tend to depend on their partners and not put in any effort to work and find solutions. While some students are responsible and work cooperatively with each other, others simply do not. These group members are called “free riders” as they depend on others and are not willing to work. As a result, it is the teacher’s responsibility to develop equal responsibility among all the students in the class. Teachers must guide the class and must make sure that all students share equal responsibility. So, academically good students will aid the weak students. As students noted in the FGD, if the teacher does not divide the responsibility and task equally between the pair, students will prefer to work alone as individuals.

Additionally, another issue that might emerge is the unwillingness of some students to work with each other because they do not get along. Here comes the crucial role of the teacher in making sure that all students develop a sense of responsibility towards each other and ensure that they handle the cooperative tasks responsibly. Therefore, the teacher must lead the class and make
sure that all students are acting responsibly. In order for students to benefit from the implementation of this teaching strategy, teachers must guide the class.

Lastly, a further disadvantage of applying Think-Pair-share in the classroom is that students may take the opportunity of pair work to discuss off topic subjects or just waste time. This specific notion was noted by the students who participated in the FGD, expressing their dismay that some of their partners tended to waste time and did not abide by the classroom discussions.

5.2.2.5 Theme 5: The noise level during Cooperative Learning must be managed.

“One of the great things about group activities is that they give students many opportunities to talk as they brainstorm, plan, share ideas, explain, debate, question, and summarize. However, in the case of large classes, the more the students in the class, the more voices there are. As the students highlighted, sometimes if not managed correctly by the teacher, students might be too noisy and then Cooperative Learning will be rendered useless. To conclude, teachers must manage their class and make sure that all students are working efficiently but at an acceptable noise level.

5.1.3 Discussion of the results of the quantitative data

The grades of all the students showed a statistically significant difference whereby most students performed better on their exams after the implantation of the Think-Pair-Share approach. This is accordance to what is present in the literature that students do better academically when the Think-Pair-Share approach is used in classrooms (Slavin, 1995)

5.1.4 Context of Lebanon moving forwards

Most schools in Lebanon should move forward with the implementation of the Think-Pair-Share. While there is scare data on how many schools already do implementation
cooperative learning. This study and its results aim to ultimately encourage school to adopt this approach in order.
Chapter Six
Conclusion

As a conclusion, it is clear that students prefer the Think-Pair-Share strategy as this approach allowed them to work cooperatively and helped them express themselves in the classroom. Students showed great interest in the Think-Pair-Share strategy due to its positive effect on the classroom’s atmosphere. This aligns with what was noted earlier that the Think-Pair-Share strategy encourages a more positive classroom climate (Johnson & Johnson, 2006; Kagan, 2017). As a result, students are motivated and show greater engagement in the social studies classroom after use of the Think-Pair-Share strategy.

From the administrators’ point of view, they generally approved of applying the Think-Pair-Share strategy in the social studies classroom, yet they emphasized the teacher’s vital role in managing her/his class while using this strategy. All four interviewees noted that the teacher’s role is essential in leading the class and ensuring that students are actively engaged in the learning process. On the other hand, they all agreed that the Think-Pair-Share is a simple yet very effective teaching method.

Finally, it can be concluded from the improvement in student performance, the administrators’ responses and the focus group discussions that the Think-Pair-Share approach could represent a vital element in the future of teaching in Lebanon.
6.1 Limitations of the study

The study is limited to participants recruited from one school without random selection. Accordingly, the results of this study may not be generalizable. Another limitation is that the principal investigator was also the classroom teacher; thus, there may be an element of social desirability bias, as the students may have answered the questions in a manner that would be viewed favorably by the teacher during the focus group discussions. Finally, the last limitation is the short duration of the study, limited to only four months.

6.2 Future research

Regarding previous studies on the Think-Pair-Share approach, it is found that very few studies have been conducted in Social Studies classes. Accordingly, in Lebanon, there is a need for a study with a larger sample size and in different schools, over the duration of a whole academic year. Additionally, future studies should look at the implementation of Think-Pair-Share in elementary and secondary classes, not just intermediate classes.

The fifth chapter discussed the findings of this study in accordance to the literature review in chapter two, the limitation of the study as well as the area recommendation for future research. The next chapter presents the conclusion.
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Appendices

Appendix A: Focus Group Questions

1) What did you think about the instructional methods this year?

2) From the two methods we used so far in class, which one do you prefer and why?

3) While working in pairs did you encounter any problems with your classmates. If so, what are these problems?

4) While working in pairs, what did you like the most and what did you like the least?

5) What changes do you recommend in the future to ensure the best students’ learning?
Appendix B: Interview Questions

1) What is your overall assessment of the Think-Pair-Share method of teaching?

2) What did you think of the students’ behavior in the classroom?

3) What is your opinion of the general classroom climate?

4) Would you recommend the TPS method of teaching to other teachers?
Appendix C: Transcripts of interviews

1. First interview: The Principal of the School

1. What is your overall assessment of the Think-Pair-Share method of teaching?

It is the first time I hear about the Think-Pair-Share cooperative strategy. I do know different strategies which teachers have used and are still applying in their classrooms, but as for this strategy specifically, I have never heard about it. Yet, it is strange that schools do not use this strategy. It is a simple strategy, and could be applied easily in classrooms, as students can stay in their places and not move, which makes it easier for the teacher to manage the class with less chaos. The students discuss and share their ideas from their places. As simple as that! Also, any teacher can use this strategy as she/he can follow simple steps, Students think alone for a few seconds, pair, and finally, they share their answers with the class. Simple steps. I like this strategy.

2. What did you think of the students’ behavior in the classroom?

I can see that all students were participating in the class discussions. I saw that all students were discussing and sharing their ideas with their peers. I also noticed that some students who rarely talk or participate in other classes were totally engaged while working together. I noticed all of that. I mean everyone was engaged, discussing ideas, solutions and answering together cooperatively. Moreover, concerning the overall class atmosphere, it is clear that students were happy when sharing their ideas with their classmates. I repeat, it is clear that they were happy and motivated.
3. What is your opinion of the general classroom climate?

I could see that the students were happy. All of them were engaged and trying their best to work hard and find the answers. I think that implementing this strategy in different subjects will also motivate students and help them to work hard. Maybe then, they will love all the subjects. It is nice seeing all the students motivated and happy. In addition, all students were paying attention to the instructions and able to answer the questions. It is a nice strategy and it is not hard to implement. I think it can be implemented by any teacher. The general climate is a positive climate; students are happily engaged.

As a summary, students are engaged, motivated, working hard together by this strategy. I can see that this strategy encourages a positive classroom climate because of the students’ positive engagement.

4. Would you recommend the Think-Pair-Share method of teaching to other teachers?

It is a nice, simple strategy, easily applied in big or small classes. I mean no matter how many students there are in class, it is easy to apply the Think-Pair-Share strategy.

Yes, I recommend that teachers of all other subjects attend your class, and I am sure they will be willing to implement this strategy in their classes. I repeat it is simple, and it has simple steps…

However, teachers must be able to manage their classes, making sure that their students are really discussing the class material rather than wasting time just talking and chatting. Therefore, in order to apply this strategy, a teacher must be able to manage and control the class well. I want to stress that any teacher who wants to apply this strategy should first make sure all the students are only discussing the subject matter.
2. Second interview: Principal’s Assistant

1. **What is your overall assessment of the Think-Pair-Share method of teaching?**
The method you implemented in class is really nice. I mean that it is a simple strategy; it does not require complicated steps or any previous preparation. What really caught my attention is that everybody was involved. It is not like the lecture-based methods where students wait for the teacher to give them permission to answer, while others daydream. This strategy engages them all.

2. **What did you think of the students’ behavior in the classroom?**
I can see that the students were working happily. They were trying their best to work hard in order to find the correct answer to the teachers’ questions. Every student was encouraged to help his/her partner in order to reach a common answer. As a result, every student feels that he/she is important and the pairs depend on each other to find the correct answer. No student is left behind, struggling alone, as they are all working cooperatively. I could see that the students were happy and engaged, and no one was left behind.

3. **What is your opinion of the general classroom climate?**
Concerning the general classroom climate, I could see that students were happy when you implemented this strategy in your classroom. There was a positive climate, as students were motivated and were busy working, discussing ideas and sharing them. So, I can describe the classroom climate as a positive, engaging, happy climate, where all the students work hard. Students were engaged, and I rarely see them this engaged in a teacher-centered classroom. I think this Cooperative Learning strategy helps in engaging students.
4. Would you recommend the Think-Pair-Share method of teaching to other teachers?

The method you implemented is really innovative. Yet it is simple and does not require complicated steps or even previous preparation. It is simple. What really caught my attention was that everybody was involved, not like the lecture-based methods where students wait for the teacher to give them permission to answer. No longer was anyone daydreaming; this strategy engaged them all.

3. Third interview: Academic Coordinator number 1

1. What is your overall assessment of Think-Pair-Share method of teaching?

It is a nice approach that helps in building student academic and social skills. In general, I see that it is a really effective and essential approach that could be applied in our classrooms. It is a nice, simple approach, easily applicable in classrooms as students stay in their places and they do not move or mingle with others. In addition, what caught my attention is that every student was involved and working-hard. In this way, every student feels a sense of responsibility regarding the work. I repeat it is an essential and important strategy…I really like it.

2. What did you think of the students’ behavior in the classroom?

Concerning student behavior, I think that maybe the class that I attended not a big class and it seems that you are able to control your students.

So, what I want to clarify is that in order to implement this cooperative learning strategy, we need to make sure that a teacher is able to control the class. By control, I do not mean making students sit quietly. What I mean is that the teacher is able to supervise the students and manage the class,
while making sure they are discussing educational issues pertaining to the lecture. Accordingly, I think that teachers who want to implement the Think-Pair-Share, should consider whether they can control the class and implement the cooperative learning technique effectively to boost student academic performance and develop social skills; otherwise, the teacher will be wasting time implementing this technique.

Another point, I want to highlight is that it is important to keep the students engaged to be able to control their behavior. As I mentioned before, your class is not a big class, so you were able to manage. But what if we have 35 students in class; will implementing this strategy help the students be engaged academically and socially? I am worried about that and not sure. I think implementing this strategy in big classrooms will be a waste of time and it will be hard for the teacher to control student behavior. We have to make sure that implementing cooperative learning will help students or it will be a waste of the teachers’ and the students’ time.

3. What is your opinion of the general classroom climate?

I think that the general climate was good, but I am afraid that the teacher will not be able to manage and handle the class all the time. Some teachers might be uncomfortable with the noise level and chaos that could ensue when students share their ideas aloud. Some teachers might find it difficult and hard to manage the class. I mean the teacher must be able to control the class and manage the noise level to be able to benefit from the implementation of cooperative learning. Teachers must be aware of the noise level; I mean they must be able to manage the class. I repeat not every teacher can manage her/his class and control the noise level.
4. Would you recommend the Think-Pair-Share method of teaching to other teachers?

As a strategy, it is a simple and motivating strategy, but I think there are some important factors that teachers must take into consideration, so as to ensure that cooperative learning is indeed benefiting the students. This includes making sure students are involved and actively participating in order to find a solution to the specific task assigned by the teacher. Another point is that every student must come up with a solution/idea and then share it with the other students. I repeat every student must have his/her idea first and then everyone must share that idea. This is what really counts and is important.

As I mentioned before, while discussing or sharing ideas, students must listen and be attentive to be able to grasp the information from each other.

So, to sum up, the cooperative learning strategy is well implemented when teachers set certain rules and students must abide by these principles/rules. I guess in this case yes; it would be helpful to implement cooperative learning strategies in different subject areas. In such cases yes, I would surely recommend that this strategy be implemented in different subject areas and grade levels.

4. Fourth interview: Academic Coordinator number 2

1. What is your overall assessment of Think-Pair-Share method of teaching?

After attending your class, I really liked this strategy. It is nice, and I saw that all students were engaged. The Think-Pair-Share strategy is very simple. I could see students working from their places, which is good for the teacher as it helps control and manage the class.
As an overall assessment, I can see that this strategy could help the students academically and more importantly socially as it helps them learn social skills. I think when students are engaged and working, they will understand and learn more in class. As for developing social skills, this strategy helps them respect each other and work together cooperatively rather than competitively.

2. What did you think of the students’ behavior in the classroom?
Okay, concerning students’ behavior, I can see that students were abiding by the rules and they were working together. That is very positive specifically in this class, in which students are considered as “middle schoolers”. So, while students are working in pairs, the teacher must make sure they are really working and not just wasting their time. There is a great responsibility on the teacher in supervising the class, and making sure that students are effectively discussing ideas to find a solution. I think that the teacher has a major role in supervising the class and must be able to give the students instructions so that they know exactly what to do.

3. What is your opinion of the general classroom climate?
Overall, the classroom climate was engaging and students were working hard. I must highlight something important that even though I saw all students discussing ideas, we must make sure that each and every one of them is putting in an effort.

There is a point I also want to highlight; some students do not work hard enough so they depend on their peers, especially on those who have good academic achievements. So lazy students may try to depend on good students who have good grades. In this case, it is not cooperative at all, as only one of the pair is working while the other is depending on him/her. Teachers must try their best to implement a cooperative climate between students; everyone should be working and no one should depend on others to find solutions. Everyone must make an effort to work hard.
4. Would you recommend the Think-Pair-Share method of teaching to other teachers?

Implementing Think-Pair-Share in other subjects is a good idea, but we should take care of some important things before we do so. As I mentioned before, we must take care of student engagement and make sure everyone is working. Therefore, in general I think that this Think-Pair-Share strategy is a simple and good strategy. We need to make sure that it benefits both the teacher and students. Moreover, we need to be aware that this strategy has also some pitfalls, so we can work to avoid them. I already mentioned some problems that we might face as teachers.
Appendix D: Transcript of Focus Group Discussions (FGDs)

1. First FGD with Grade 6 Students

Question 1: What did you think about the instructional methods used this year?

The students noted that the cooperative learning teaching style that was implemented was nice and interesting. Most students mentioned that it is “an interesting strategy, as we enjoyed the Think-Pair-Share strategy more than the lecture-based strategy.” “We find the lecture-based strategy boring because we do not enjoy classes where the lecture-based strategy is applied”. Several students highlighted the response that they find the lecture-based method “very boring,” because “we sit, we daydream, we do not interact with the teacher and in many cases, and we do not understand everything the teacher says.”

Other students mentioned “We really enjoyed this new teaching style. It was the first time we experienced it and we really liked it.” All students agreed that they prefer Cooperative Learning to the lecture-based strategy. Many students asked if they could have the Cooperative Learning strategy be used in all their classes by saying: “Could we always use this teaching method?” One student noted, “This strategy is a new strategy that helped us enjoy the session and understand the lesson more.” Another student also noted, “The Think-Pair-Share strategy helped us to interact more with each other and with the teacher.”

Question 2: From the two methods we used so far in class, which one do you prefer and why?

All students mentioned that they prefer Think-Pair-Share. Some students stated, “We prefer Think-Pair-Share, as it helped us organize our ideas with a classmate, then share and discuss our ideas together so we can find the correct solution together.” Most of the students said that they preferred Think-Pair-Share because it helped them think more logically.
Several students emphasized that they liked working in pairs. One student enthusiastically said, “I prefer Think-Pair-Share because we can all discuss our ideas easily.” Other students agreed, adding, “We enjoy sharing our ideas together and we do not feel shy anymore.”

Question 3: While working in pairs did you encounter any problems with your classmates If so, what were these problems?

Most students mentioned that working cooperatively in class did not lead to any conflicts or fights with their classmates, nor did they face major problems. However, several students noted that while working in pairs, they faced some difficulties. According to one student, “If a pair has one student who is more engaged and has better grades while the other is lazy and has bad grades, this will make the lazy student rely on the smart student. I do not think that this is fair. Everyone should work and put in effort.” Another student added, “Some students do not like each other so they do not want to work with each other because they are simply not friends.”

Question 4: While working in pairs, what did you like the most and what did you like the least?

Some students mentioned that the thing they liked most when the Think-Pair-Share strategy was applied was that they helped each other to try and find a solution. Another thing they mentioned is “We are not shy anymore. We can share our ideas with the class with confidence as we are sure that we can answer the question correctly.” Some added, “We do not feel shy because everyone is involved and not only the good students or the students that the teacher likes. We can all share our ideas freely.” One student said, “The thing I like most about this teaching strategy is that I feel
happy when I share my ideas because my classmates and my teacher are listening to what I have to say.”

With regards to what they like least about this strategy most agreed that “Lazy students depend on smart students, so they sit and do nothing; they only wait for us to answer as we are smart. This is unfair. The teacher must make sure that the work is divided equally and all students are working.”

**Question 5: What changes do you recommend in the future to ensure best student learning?**

All students emphasized that they do not like the lecture-based method which they described as boring. They noted, “We do not like lectures as we daydream in class while waiting for the teacher to give us permission to answer. Most of the time she does not let us talk, so our only job is to sit there and listen.”

All students supported implementing the cooperative learning technique. Many students said, “If teachers want us to understand everything and get better grades, then they should apply Think-Pair-Share. Think-Pair-Share made us enjoy the lessons while interacting in a positive and friendly environment. Yes, all teachers must implement Think-Pair-Share because it is also fun!” In summary, students wanted teachers to change their traditional teaching style. They believe that teachers must adopt a student-centered technique as this will help students learn more easily while fostering a positive classroom environment.

2. **Second FGD with Grade 7 Students**

**Question 1: What did you think about the instructional methods used this year?**

Students emphasized that the teacher-centered learning style is an old technique that every teacher applied, and they described it as a boring instructional approach. Some students complained that teachers only interact with some students, leaving the rest to just sit there and listen. One student
specifically expressed his dissatisfaction, saying “It is really unfair when the teacher does not let us answer; she only chooses students that she/he loves.”

All students noted, “We prefer the Think-Pair-Share teaching style. We can learn while enjoying the session at the same time.” Some also mentioned, “It is easier for us to learn when we are enjoying the session, because we really get bored when the teacher explains and we are not allowed to discuss among each other.”

**Question 2: From the two methods we used so far in class, which one do you prefer and why?**

All students said that they preferred to work together cooperatively. They prefer to help each other while being involved in discussing and sharing their ideas. It was clear that the students wanted this strategy to be applied in all classes. Students preferred this strategy for many reasons; as some of them noted, “We all have the chance to express ourselves. We can discuss and share our ideas; we feel that we are all equal, everyone is important. In other words, we mean the teacher listens to all students, to their ideas and solutions.”

Another point the students raised was that they do not feel intimidated anymore to share their ideas; rather they like sharing their ideas. One student said “We are not shy to share ideas anymore because when we work in pairs, we can come up with the correct answer together. Another student added, “While working cooperatively we gain social skills, as we learn how to be good listeners while actively being involved in the discussion.” A couple of students said, “When we work in pairs, we feel happy,” while others said, “Think-Pair-Share is better because we take ideas from our classmates and then we share them.” Many students preferred the Think-Pair-Share strategy because they did not feel shy anymore and were not afraid to share their ideas.
Question 3: While working in pairs did you encounter any problems with your classmates If so, what were these problems?

Many students stated that they did not encounter any problems as they enjoyed pairing up with a classmate then discussing their ideas with the rest of the class.

On the other hand, a couple of students mentioned that they faced some problems while working in pairs during the implementation of the Think-Pair-Share strategy. One problem they faced is that some students depended on their partners to do all the work, especially if they knew that their partners were better academically. A student insisted, “While working in pairs, I was the one trying to find the solution and searching for the correct answer; my partner was lazy and he always depended on me.”

Another point also noted is that some pairs did not agree on one idea and were unable to reach a consensus. The last point noted by some students is that some students simply do not want to work with one another; as one student said, “Some students do not like to work with me nor do I want to work with them because we are not friends. But the teacher does not let us change our places as we are supposed to work with the person sitting beside us, so we are forced to work with classmates we do not want to work with.”

Question 4: While working in pairs, what did you like the most and what did you like the least?

Many students noted that they really like the positive classroom climate when Think-Pair-Share was implemented in the Social Studies classroom: “We really enjoy learning because we feel motivated and really involved in the classroom.” Other students said, “It gives us the chance to get to know each other more. Now we know how to cooperate well with each other in order to share
ideas.” Some also stressed, “We do not only share ideas together but we also have the chance to help one another to find the correct solution. Therefore, in this case, we not only work together cooperatively but also we also learn better and achieve higher grades.”

On the other hand, what was least liked by the students was having lazy students depend on their partners to do all the work, meaning that some did not want to work at all while their partners did all the work to try to find answers. Everyone agreed that this is unfair and that the teacher should make sure that everyone is working. Another point the students noted is that sometimes some students take advantage of working in pairs to discuss issues that are not related to the lesson, and as such they waste their time. One student specifically complained about this issue noting, “While working in pairs, my partner did not care about his grade, so he wasted my time by talking about personal issues. I got very angry as I did not want him to waste my time because I wanted to concentrate in class.”

**Question 5: What changes do you recommend in the future to ensure the best students’ learning?**

Most students mentioned that teachers must change their teaching approach from the lecture-based teaching style to cooperative learning. They loved cooperative learning since it is an efficient technique that helps students to learn more and boosts their confidence. In addition, several students argued that implementing a new teaching style would also help them improve their language skills. One student said, “If a teacher wants our grades to be better, she/he must change her/his teaching style”. She added “We are a new generation and the old teaching style is not applicable these days. We do not want to learn from a teacher who spends all the time talking about theories while we are asked to sit quietly and listen. That is not a good way to learn because we get bored, so we start to talk with each other.”
To sum up, students urge teachers to move away from a lecture-based approach and instead implement Cooperative Learning in order to help students achieve better grades. As one student noted, “Teachers must change the teaching from the boring style they now use, which is the lecture-based method, to a method that is fun and enjoyable, such as Think-pair-Share. This method will make students focus more and get better grades.”

3. Third FGD with Grade 8 Students

**Question 1: What did you think about the instructional methods this year?**

One student stated, “I think the Think-Pair-Share is better than the lecture-based method because every class has the type of students who do not participate in class or give answers or share ideas. So, by working cooperatively, these students can get help from other students so that they do not miss out on the lesson.”

All students preferred the Think-Pair-Share strategy, an opinion reported by one student as such: “I believe that the Think-Pair-Share method can really help students. Students who usually do not speak up could learn to speak up. It could also help academically, especially for students who have more trouble understanding the material, by teaching them how to think and find solutions.”

On the other hand, they prefer the cooperative learning method (Think-Pair-Share) to the lecture-based method because it is an interesting way to learn in social studies classrooms. Another student added, “I think that the traditional method does not give the opportunity for all to answer, as the students do not express themselves, whereas while applying the student-based method, the students can express themselves more, and we all have a turn to speak”. One other student said, “I like the Think-Pair-Share method that was implemented this year for the first time in social studies class.”
Question 2: From the two methods we used so far in class, which one do you prefer and why?

One student emphasized, “I think it is essential to use this style [Think-Pair-Share] in every classroom, because when paired, students will be able to answer questions with more confidence and have credible answers.”

All students in this class preferred the Think-Pair-Share method. In addition, they suggested that all teachers use this method in class to benefit the students. Some said that this teaching style can benefit students and allow students to motivate each other. One student stated, “With this technique, students can motivate each other, so if I am working and trying to find a solution, my partner will also put in the effort to work in order to reach a common answer. Another thing positive thing is that it teaches students to think, to share and discuss their ideas, and to listen to each other’s opinion.”

Another student noted, “It helps us as students to respect and follow the rules because we must listen to our partner and in return, he/she must listen to us. Therefore, these are skills that we develop through the implementation of this specific strategy.” Others said, “We learned how to communicate with each other. And let us not forget that we are learning in a fun way so we do not feel that we are under pressure.” Another added, “It makes us motivated, because we try our best to find the correct solution so as to get the right answer before the others. This strategy also helps us to think together as a class.”

Question 3: while working in pairs did you encounter any problems with your classmates. If so, what were these problems?

Many said that they did not face any problems while working with their classmates. They said that no problems were faced at all, whereas other students found that when the teacher implemented
Think-Pair-Share, she did not allow them to pair up with their friends; she kept them sitting according to the seating plan and told them to pair up, but sometimes they did not like to work with specific students who were not their friends. As a result, students noted that sometimes they could not reach a solution because the pair did not reach an agreement due to the fact that they were not willing to work together.

Another problem noted by students is that sometimes, during discussion time, some students tended to waste time. An example of this was mentioned by a student who said, “Some of my friends do not take the pairing up time seriously, so they tend to waste time rather than use this time to discuss ideas.” Moreover, it was noted that “When it is pairing time, the class sometimes becomes a mess. The class can become very noisy, and that is really annoying.” One student expressed her fear by saying, “I am a good student and I care about my grades; I do not want any student, specifically my partner to affect my performance in class. I can help him get a good grade, but I will not waste my time in explaining the idea to him/her when he/she does not understand or even does not take anything seriously.”

**Question 4: while working in pairs, what did you like the most and what did you like the least?**

Some students reported that “We really like working together; we help each other; we have fun and enjoy the session.” Some students stated, “While working together, we share our ideas and as such we gain from each other. In addition, we have students that do not dare to speak up or even answer any question; in this way, students will be motivated to answer without any fear.” Another student added in agreement, “I feel happy for students who are shy and do not interact in the class, because now they do, since all students are engaged”
Students raised two points that they did not like about this method. The First point, as previously mentioned, some students complained about the level of noise in the classroom. The second point was that some students did not want to work with each other; so in this case, one student would do all the work while the other was a free-rider.

**Question 5: What changes do you recommend in the future to ensure the best student learning?**

Everyone was in agreement that teachers must change the way they teach. “They must change from the old, boring lecture-based method, and start using a new teaching style. We think that we, as students, when we learn cooperatively, we will be able to achieve better grades and learn more.”
Cooperative Learning Approach is an instructional strategy in which students work together in pairs or in groups to find a common solution to a problem or express a certain idea.

Think-Pair-Share, is a cooperative learning modality by which students think individually for a few minutes, then pair up to discuss their ideas and solutions, before sharing their ideas with the whole class.

Lecture-based learning approach is a teaching method where the teacher is considered an expert, at the center of instruction, and is the most significant source of information.