INCREASING STUDENTS' PARTICIPATION BY USING COOPERATIVE LEARNING
IN LIBRARY AND RESEARCH COURSE

by

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CERTIFICATION OF PROJECT WORK

We, the undersigned, certify that this project entitled INCREASING STUDENTS'
PARTICIPATION BY USING COOPERATIVE LEARNING IN LIBRARY AND
RESEARCH COURSE by EZDEHAR ALHABEEDI, Candidate for the Degree of Master of
Science in Education, Curriculum and Instruction in Inclusive Education, is acceptable in
form and content and demonstrates a satisfactory knowledge of the field covered by this
project.

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Abstract

The purpose of this study was to determine the impact of cooperative learning strategies on students' participation in a high school library and research course in Saudi Arabia. Increased student participation provides social, psychological and academic advantages to students. The review of the literature focuses on four primary frameworks. The first section addresses Vygotsky's theory of social constructivism. Second, previous studies completed in regards to cooperative learning are presented including definitions, benefits, potential drawbacks, elements and strategies, as well as the role of the teacher in cooperative learning. The third section focuses on student development while the last section focuses on curriculum of the library and research course. This research specifically targeted female first grade high school students who were 16 years old from an urban high school in Western Saudi Arabia during the fall semester of 2015. The experimental group was 15 students working in three cooperative groups while the other 15 students in the control group were taught in a traditional teacher centered method. Data was collected using quantitative techniques of participation tallies. The results showed students who were taught by the cooperative learning strategy increased their participation as compared to the students who were taught by a lecture approach. Therefore, the conclusion of this study is that cooperative learning had a positive impact on increasing students' participation in Saudi Arabia.

Table of Contents

Introduction

The educational problem I chose to investigate is classroom participation, which is an important element of the educational process for the teacher and the student. Classroom participation has a positive impact on the student in the development of thinking and verbal skills. Also, participation of students has an impact on the teachers who give them moral support and enhance their educational performance. Student involvement in the teaching and learning process has various advantages: it motivates students, makes their study interesting, maintains a dynamic class, allows students to learn from each other, promotes learning, and builds confidence and trust among students (Abuid, 2014). The problem appears when students do not respond to questions from the teacher, do not participate in the oral or written classroom activities, or do not play a role in classroom discussion with peers.

Students who do not participate may do so because they do not like the class or the teacher, do not have motivation to learn, have problems in pronunciation, or are shy. Abuid (2014) discussed specific student traits that impact on their participation. According to Abuid (2014), dramatic differences between higher and lower participation classes arise based on students' confidences levels. Participation is most likely to increase when students feel more confidence and interest. On the other hand, the teacher plays a prominent role in increasing students' participation in the class. Despite this, some teachers fail to encourage participation. These reasons could include lack of attention to individual differences, monotonous daily routine, or limited innovation in modern teaching methods. Therefore, because of the importance of participation, I decided my research question would be, "Does using cooperative learning strategy in teaching library and research to Saudi high school students' increase their classroom participation?"

Significance to the Field

The issue of participation is important to the field of education because of the theory that social construction of knowledge is essential for learning. Social constructivism suggests learning experiences are social in nature, and proposes learning cannot be separated from the social context where learners develop their sense of identity from first a social perspective and then an individual perspective. One potential solution is to increase student participation is applying instructional strategies that encourage interaction (Oyarzun & Morrison, 2013). Research over the past 20 years has established beyond doubt that interaction between learners is a powerful and natural mechanism for promoting both cognitive and affective learning outcomes. Reviews of pedagogic research have generally confirmed that group work and peer interaction can be effective strategies to enhance classroom learning (Christie, Tolmie, Thurston, Howe, & Topping, 2009).

The educational field would benefit from increasing student participation by using cooperative learning strategies. These benefits include social, psychological, and academic benefits. Some examples of social benefits are that cooperative learning helps to develop a social support system for learners, builds diversity understanding among diverse students and staff, develops higher level thinking skills, promotes student-faculty interaction and familiarity, develops social interaction skills, promotes positive race relations, establishes a positive atmosphere for modelling and practicing cooperation, establishes an atmosphere of cooperation school wide, and develops learning communities. Psychological benefits include the findings that student-centered instruction increases students' self-esteem, and cooperation and reduces anxiety (Marjan & Ghodsi, 2012; Srinivas, 2011).

In addition, cooperative learning helps students to develop positive attitudes towards teachers. Cooperative learning also incorporates academic benefits, specifically:

cooperative learning promotes critical thinking skills and involves students actively in the learning process. Also, it improves students' academic achievement, helps students clarify ideas through discussion and debate, enhances self-management skills, and sets high expectations for students and teachers. As for the academic discipline, cooperative learning promotes higher achievement and class attendance. In addition, students stay on task, are less disruptive and model appropriate student problem solving techniques (Marjan & Ghodsi, 2012; Srinivas, 2011). Cooperative learning encourages the students to effectively contribute towards problem solving leading to better understanding of the subjects (Davidson & Major, 2014).

Cooperative learning is now accepted as an important and beneficial teaching and learning strategy that encourages positive learning outcomes for all students, including students with a range of diverse learning and adjustment needs. When children work cooperatively together, it means they will participate in group discussions, show evidence of a more sophisticated level of discourse, and participate in fewer interruptions when others speak (Gillies, 2006). Dialogues in cooperative groups are multidirectional instead of bidirectional, as normally occurs in traditional classrooms, or unidirectional, as can occur in peer tutoring dyads. Gillies' (2006) viewpoint emphasizes the importance of verbal interaction as an incentive for promoting thinking and expects that such dialogic exchanges would enhance students' cognitive development.

Personal Significance

As a researcher, I think the reasons for the lack of classroom participation in the library and research course I teach is the traditional approach in teaching this material. I wanted to investigate modern strategies that would increase students' motivation to participate in the classroom. Therefore, I thought the use of the cooperative learning strategy would help

students to increase their classroom participation. For that reason, I decided to focus on this problem to find solutions to this issue through using of cooperative learning strategy that would increase students' participation.

In fact, the importance of the study is that it examines the role of cooperative learning in increasing students' participation in the library and research course and also helps teachers in the development of teaching methods. Furthermore, the study gives the teachers in Saudi Arabia an opportunity to learn more about cooperative learning. Increasing students' participation is important to me because teachers play a critical role in promoting interactions between students and engaging them in the learning process. Students' participation in the classroom by asking questions or participating in discussion have a positive impact on the students' learning. Also, this study helped me to find an educational solution to increase classroom participation that may benefit me when I return to teaching in Saudi Arabia.

Moreover, learning is a social activity. In fact, this social dimension is a critical aspect in the learning process for people of any age. When people learn in communities together, they will achieve more than as individuals and they will be more engaged in the process. Studies show that cooperative learning techniques promote more learning than competitive or individual learning experiences. Increased learning occurs regardless of student age, subject matter, or learning activity. Complex learning tasks such as problem solving, critical thinking, and conceptual learning improve noticeably when cooperative strategies are used. Research shows that opportunities for cognitive rehearsal, clarification, and reteaching have a positive effect on academic achievement. When students collaborate, they have an opportunity to discuss new concepts and share their ideas with someone close to their own level of understanding. Also, they get to try out new ideas and ask questions in a small group before speaking to the whole class or finishing a written product. When students discuss and defend their ideas or solutions with teammates, they learn to think problems

through, to support their own opinions, and to critically consider the opinions of others before coming to a conclusion. They learn that, in the end, the responsibility for learning still rests with them (Lundgren, 1994; Lin 2006).

According to proponents of cooperative learning, the fact that students are actively exchanging, debating and negotiating ideas within their groups increases students' interest in learning. Importantly, by engaging in discussion and taking responsibility for their learning, students are encouraged to become critical thinkers. Many researchers have reported that students working in small groups tend to learn more of what is being taught. Moreover, they retain the information longer and also appear more satisfied with their classes (Dooly, 2008). Recently, educators and researchers have begun to pay significant attention to the learning strategies that enhance students' participation. The following literature review analyzes what other researchers have found concerning the benefits of cooperative learning when compared with traditional, teacher-centered learning approaches.

Literature Review

Cooperative learning has a positive impact on the educational process. Cooperative learning improves interaction in groups, promotes individual responsibility for learning, and impacts metacognitive awareness. The benefits of cooperative learning also include increased cooperation and more well-developed social skills, motivation, and retention of knowledge. Furthermore, cooperative learning enables the students to have a broader understanding of the subjects since they are able to collaborate in the learning process. (Davidson & Major, 2014). This review of the literature focuses on four primary frameworks. The first section addresses Vygotsky's theory of social constructivism. The second section presents the research on cooperative learning. The third section focuses on student development while the last section focuses on curriculum of library and research course.

Social Constructivism

Vygotsky's theory of social constructivism was developed by Lev Vygotsky, who was born November 17, 1896 in Orsha, a city in the western region of the Russian Empire. He attended Moscow State University, and graduated in law in 1917. His formal work in psychology began when he attended the Institute of Psychology in Moscow and began collaborating with Alexei Leontiev and Alexander Luria. His interests in psychology were diverse, but centered on topics of child development and education. He also explored other topics, such as the psychology of art and language development. The major theme of Vygotsky's theoretical framework is that social interaction plays a fundamental role in the development of cognition. This is a general theory of cognitive development. Most of the original work was done in the context of language learning in children. He also focused on the connections between people and the socio-cultural context in which they act and interact in shared experiences. According to Vygotsky, humans use tools that develop from a culture, such as speech and writing, to adapt to their social environments. Children develop these tools to serve solely as social functions, and as ways to communicate needs (Noble, Kravit & Braswell, 2012).

Vygotsky discussed how social interactions play a role in cognitive development of children and culture. Vygotsky's cultural-historical theory of cognitive development focused on the role of culture in the development of higher mental functions, such as speech and reasoning in children. According to Vygotsky, speech begins as a means of communication and then becomes a tool of thinking. Vygotsky's theory also includes the idea that child development is the result of interactions between children and their social environment. These interactions involve people, parents, teachers, playmates, schoolmates, and siblings. In education, the social development theory informs cooperative learning strategies to facilitate learning. The classroom, based on Vygotsky's style provides groups for

peer instruction, collaboration, and small group instruction. The environment of the classroom and the design of material to be learned promotes and encourages student interaction and collaboration, leading to a classroom community (Doolittle, 1995).

Using cooperative learning strategies, students share actively in the learning process and work in collaboration with other students to achieve a common goal. According to Vygotsky cooperative learning is an integral part of creating a deeper understanding. Cooperative learning is a part of creating a social constructivist classroom (Powell & Kalina, 2009). Therefore, social interaction is an important way to motivate students to participate in the learning process and exchange ideas with colleagues in the classroom. Vygotsky's theory supports the strategy of cooperative learning. For Vygotsky, formal education was an important instrument of enculturation. Formal education allows for the presentation of social and cultural experiences in a systematic manner. Therefore, cooperative learning is an effective formal education strategy for transmitting these cultural experiences. Cooperative learning, and its social basis, is a strategy well suited to the tenets of Vygotsky's theory of human development (Doolittle, 1995). This strategy increases classroom participation, which will facilitate a social interaction between students to work effectively in the group conversing with one another, and participating in collaborative activities. This shows the relationship between the cooperative learning strategy and Vygotsky's social constructivism theory. It also provides strong support for the inclusion of cooperative learning strategies in classroom instruction (Li & Lam, 2005).

Cooperative Learning

Definition

Cooperative learning is an instructional method that is designed to encourage cooperation and interaction between students. It is focused on removing the tendency of competition between, students, which does not often lead to a positive result. Cooperative learning develops a number of skills that are necessary to achieve important educational goals in addition to the aims of the specific lessons being taught. Human beings are social creatures by nature and cooperation has been used throughout history in all aspects of our lives. Thus, it follows that cooperative learning in school groups is an effective teaching method. Humans need to cooperate with others and have others cooperate with them to achieve specific goals. This cooperation is needed especially in the classroom, and can be developed through practicing cooperative learning. Cooperative learning encourages students to support each other, evaluate the group's progress, and employ social skills. (AL-Rifaee, 2006)

There are many definitions of cooperative learning, but it is generally defined as a teaching arrangement that refers to small, heterogeneous groups of students working together to achieve a common goal (Dotson, 2001). Grouping is essential to cooperative learning. Students work together to learn and are responsible for other's learning (Dotson, 2001).The Office of Educational Research and Improvement, of the U.S. Department of Education (1992) offers the following definition:

> Cooperative learning is a successful teaching strategy that teams students in small
> groups with different levels of ability, using a variety of learning activities to
> improve their understanding of a subject. The overall intent of this instructional
> strategy is to teach responsibility for learning and to help others learn (Wilson-
> Jones & Caston, 2004, p. 280)

The overall concept of cooperative learning is a positive correlation that occurs when members of the group are connected together for the academic success of the whole group. The group builds a community of support and encouragement in the implementation of the groups' tasks and achieves goals (Wilson- Jones, & Caston, 2004).

Furthermore, there is another definition of cooperative learning:

> Cooperative learning is a pedagogical approach, which involves learners in their own learning by helping others learn and learning from others. Cooperative learning is a form of active learning designed to enhance individual learning via student group interaction. (Riley & Anderson, 2006, p. 130)

Faryadi (2007) defined cooperative learning as a set of principles and strategies for enhancing learning and communicating with others toward a common goal. In other words a small group of students learn together and take advantages of each other's expertise to achieve a common goal. While there are many slightly different definitions of cooperative learning, there are common elements amongst these.

Elements of Cooperative Learning

Research notes that there are many strategies or elements to enhance the success of cooperative learning. There are five essential elements of cooperative learning that should be included in any lesson to enhance cooperative learning (Canan, 2009). The five factors that are paramount in a cooperative learning experience are: positive interdependence, individual accountability, face-to-face interaction, interpersonal and small group skills, and self-evaluation.

The first and most important element is positive interdependence. In this element, team members need to rely on each other in order to complete the group's task. Positive interdependence includes assignment of roles that involve students in the learning process

while allowing for division of responsibility such as student note-taker, time-keeper, and results-reporter. Positive interdependence can be achieved when each group member comes to understand and value the need for group cooperation in the attainment of their own personal goals, the other individual group member's goals, and the goals of the entire group. Positive interdependence may take several forms, including goal interdependence, task or labor interdependence, resource interdependence, role interdependence, or reward interdependence.The result of this interdependence is that students will be more highly motivated to work cooperatively when task success depends on the participation of other group members (Johnson, Johnson, & Smith, 1998; Doolittle, 1995).

However, it is the teacher's responsibility to design interdependence into the assignment. For example, resource interdependence exists when individuals each possess specific resources needed for the group as a whole to succeed. Teachers may promote resource interdependence by giving specific resources to different individuals in the group. Moreover, task or sequence interdependence occurs when one group member must first complete his/her task before the next task can be completed. For example, collecting water samples might be assigned to two group members, while research on how to collect samples is done by two other group members (Johnson, Johnson, & Smith, 1998; Doolittle, 1995).

The second essential element of cooperative learning is individual accountability. This means assessing the quality and quantity of each member's contributions in the group, which makes each student responsible for his role to the group assignment effort. Individual accountability involves holding each student accountable for mastering relevant material. The purpose of a learning situation is to maximize the achievement of each individual student.

Individual accountability is promoted by providing opportunities for the performance of individuals to be observed and evaluated by others. For example, individual

quizzes or examinations promote individual accountability. Random checking is posing a question or a problem and randomly calling on specific individuals to give an explanation after talking about the question or problem in a group. Another example of individual contributions to a team report, would be if individual members were asked at random to present a part of the report. Another approach would be to have one student serve as checker on a team. The role of a checker is to ask each member individually whether they understand the design, solution, or explanation that the team has just constructed. The checker may ask for some demonstration of understanding (Johnson, Johnson, & Smith, 1998; Doolittle, 1995).

Face-to-Face promotive interaction is the third of these elements, whereby team members assist each other and the group by discussing the topic, challenging others' ideas, and arriving at consensus. Face-to face interaction, works in conjunction with positive interdependence. Face-to-face interactions involve individual group members encouraging and facilitating other group members' efforts to complete tasks and achieve in order to have successful group goals. Face-to-face interaction encompasses providing each other with efficient and effective help and assistance and influencing each other's efforts to achieve mutual goals.

One example for a teacher to apply this element in the classroom would be to ask students to form individual responses to a multiple-choice question focused on a particular concept and then reach consensus on an answer as a team. Another would be to follow up successful team activities by asking students to reflect on how the team helped individual learning. Furthermore, jigsaw is a cooperative learning structure in which material to be learned is divided into separate components. Groups of students are assigned responsibility for each component and learn together how to teach that component. Then teams, with one

individual responsible for each component, come together to teach each other the entire set of material (Johnson, Johnson, & Smith, 1998; Doolittle, 1995).

The fourth essential element of cooperative learning is interpersonal and small group skills. The social skills that are necessary for a student to perform competently in a small group are taught directly during a cooperative learning lesson. Simple small group social skills such as staying with one's group, speaking in a low conversational voice, trusting other group members, and the sharing of leadership responsibilities usually require specific and direct attention from the teacher. Groups cannot work effectively if members do not have and use the needed social skills such as collaborative skills that include decision-making, trust building, communication, and conflict-management (Johnson, Johnson, & Smith, 1998; Drakeford, 2012).

Finally, the fifth basic element of cooperative learning involves group self-evaluation. Groups need a specific time to discuss how they achieved their goals and to maintain effective working relationships among members. The purpose of this element is to clarify and improve the productiveness of all group members in contributing to the cooperative efforts of achieving the group's goals. Quality teamwork has many aspects that cooperative learning can help develop in a group, including collaboration, cooperation, and group cohesion. Cooperative learning can increase communicative competence, language knowledge and skills, as well as a higher level of enthusiasm and cooperation within the class (Doolittle, 1995).

Benefits

Academic benefits. A synthesis of research about cooperative learning finds that cooperative learning strategies have a positive effect on improving the achievement of students and their interpersonal relationships. In 67 studies of the achievement effects of cooperative learning 61% found significantly greater achievement in cooperative learning group than the traditionally taught control groups. Positive effects were found in all major

subjects; all grade levels; in urban, rural, and suburban schools; and for high, average, and low achievers (Dotson, 2001). In brief, as Dotson (2001) mentioned, cooperative learning has been found to be a successful teaching strategy at all levels, from pre-school to post-secondary. Drakeford (2012) conducted a study on two male secondary students attending the Upward Bound pre-college program. Each student worked in small groups with specific roles, and two observers documented the amount of time each student participated during the cooperative learning activities. The results of this study showed that cooperative learning techniques increased student's participation.

Cooperative learning has been researched and implemented in classrooms around the world since the 1970s. Research has proven that this instructional strategy can be effective in encouraging student relations and motivating student academic involvement in school. Research also indicates that cooperative learning has positive effects on academic achievement, especially for students with learning disabilities. It is important, however, to note that cooperative learning does not mean simply putting students in a group. When cooperative learning is carefully structured, students exhibit an increase in academically engaged time and elementary students remain on task. The findings from numerous research studies on cooperative learning show improvement in academic achievement, behavior and attendance, motivation, and school and classmates satisfaction (Wilson-Jones, & Caston, 2004). Also, 87% of the studies that used the cooperative learning strategy observed positive effects on learning achievement (AL-Rifaee, 2006).

In addition, cooperative learning enhances higher academic achievement. In cooperative learning, a group is composed of low achieving students who work harder when grouped higher achieving students. In this way there is hardly any cause of failure for low achieving students. Compared with traditional learning methodologies, cooperative learning is an active instructional strategy that fosters higher academic achievement. Moreover,

cooperative learning enhances learning outcomes. The interaction between the weaker students and better achievers results in improved and efficient learning. (Naseem & Bano 2011).

   Interpersonal benefits. In addition to the academic benefits of cooperative learning there are interpersonal benefits to the students. When students work interdependently, it can increase their feelings of support of one another, and develop their self-esteem (Canan, 2009, Weimer, 2011).Similarly, cooperative work affects students' development of autonomy, sense of purpose, and building and maintaining of mature interpersonal relationships. Cooperative learning leads to the personal development of students by promoting self-confidence, and positive attitude amongst them, while working collectively in a group in order to solve a given task (Naseem & Bano 2011).

   Engaging students in the learning process increases involvement and allows

   students to understand how subject material relates to life experiences. If lessons

   are viewed as relating to the experiences of students in the classroom, and thus a

   valid application to real life expectations, student motivation will increase.

   (Drakeford, 2012, p. 240)

   Social benefits. In cooperative learning students with different learning skills, cultural background, attitudes and personalities interact with each other which ultimately results in the development of social skills like sharing, cooperation, integrity, leadership, decision making and division of labour. There are a number of studies examining the positive effects of cooperative learning. There were 12 out of 14 studies on cooperative learning and inter-group relations that showed that cooperative learning had a positive effect on building positive social relationships. Cooperative learning inculcates the skills of cooperation, leadership, team work and division of labor among the students which makes them efficient

for the jobs in the companies which have emphasis on the social skills and favor the

combined effort of knowledge and manpower (Canan, 2009; Naseem & Bano 2011).

Despite the ample evidence supporting the use of cooperative learning, there are

some drawbacks and fears of using this strategy in the classroom. These reasons present a

persuasive disincentive to adopt cooperative approaches.

Potential drawbacks

Each educational strategy has advantages and disadvantages. Although the effectiveness

of the cooperative learning strategy is well documented, there are some potential drawbacks

that may happen during implementation with students in the classroom.

The first drawback is dependency. Students work almost exclusively in teams.

They become dependent on their teammates and do not want to work alone. It is a very

frustrating situation when all students work so hard and then one person who did nothing asks

to get the answers. It is not fair if one group member does not contribute as much as the

others do. This will often leave the other members frustrated and the student who is not

contributing will not really learn anything. When one person does not pull their weight it

makes extra work for the others. There can often be a weak link in a group, so it is up to all of

the members to strengthen that one. They need to recognize that he/she needs to add more to

the group (Middlecamp, 1997; Bower & Richards 2006).

The second potential drawback is the effort required. Complex cooperative

learning lessons are well planned. They take so much time and effort on the part of the

teacher that cooperative learning occurs only occasionally, and the benefits of cooperative

learning are not reaped. It takes a lot of effort to design activities that involve interaction and

cooperation, even more effort to manage if a group or activity gets into trouble. This is

exacerbated when teachers are not comfortable or informed when it comes to implementing

collaborative techniques (Middlecamp, 1997; Bower & Richards 2006).

The third disadvantage can be someone in the group may try to take over the group and dictate what everyone does. These type of people are not good group workers, and one of the biggest problems of a group situation is the balance of power. Not all people are given an equal voice in a group. Usually there is one group leader to whom everyone defers. Another person takes care of the data. Some people end up feeling overlooked or unappreciated. One way to remedy this is to keep the groups small, which forces all people to participate (Middlecamp, 1997; Bower & Richards 2006).

A fourth drawback is more quiet people may not feel comfortable expressing themselves and their ideas with a group. The quiet people who never talk might still not feel comfortable talking to a group. In this case they are more comfortable talking to one-to-one. Some students are shy or reserved and feel awkward when working with others. Often when students hear that they have to work in groups they get very uneasy. They do not always like to meet new people. They do not know how others will respond to their beliefs and values. (Middlecamp, 1997; Bower & Richards 2006).

The last drawback is assessment. If people work in a team and produce a combined deliverable, it is difficult to determine teamwork effort of each student and fairly apportion the marks. Some students may think it is not fair when the teacher puts students into groups because many of the hard working students do all of the work and provide their effort to do it very well, and the lazy students do nothing and still receive the same grade (Middlecamp,1997; Bower & Richards 2006).

The role of teachers is different in the cooperative learning classroom. The teacher is the facilitator of learning in a cooperative learning environment. The teacher is there to help in the sharing of the knowledge that every group already has. Teachers should do their best to make sure everyone is involved when students work in groups. Teachers link students

together so one cannot succeed unless all group members succeed. Group members have to know that they sink or swim together. Students should clearly understand that each group member's efforts are required and indispensable for group success and each group member has a unique contribution to make to the joint effort because of his or her resources and/or role and task responsibilities. However, one of the five elements of cooperative learning that may save cooperative learning from these potential drawbacks is positive interdependence. This is the belief by each individual that there is value in working with other students and that both individual learning and work products will be better as a result of collaboration (Middlecamp, 1997; Bower & Richards 2006).

Strategies of Cooperative Learning

Cooperative learning is an extremely useful strategy in that it involves students in established learning groups or teams. Cooperative learning fosters individual accountability in a context of group interdependence in which students discover information and teach that material to their group and to the whole class. The teacher's role also changes from lecturer and knowledge-holder, to facilitator and guide. Cooperative learning is so effective because it is structured and creates a classroom community. It also enhances students' communication skills, balances interdependence with individual accountability, and responds to classroom diversity (Naseem & Bano, 2011).

There are various and popular strategies for cooperative learning that can be used whenever the instructor sees fit. Cooperative learning structures are methods of organizing the interaction of individuals in a classroom. Each instructor needs to pick out and adapt these structures to their own course content and learner group. The teacher also can use these strategies to improve students' cooperative learning skills and achieve the specific purpose of using these strategies. Listed below with a brief description are some of the more common strategies that will be employed with this study.

Think-pair-share. The think-pair-share structure, requires students to think independently for a minute in response to the teacher's question, then discuss their responses with a partner, and finally share their ideas with the class (O'Connor, 2013). There are four steps to this method. The first step is groups of four students listen to a question posed by the teacher. Second, individual students have time to think and then independently write their responses. Third, pairs of students read and discuss their responses with one another. Finally, a few students are called on by the teacher to share their thoughts and ideas with the whole class. This is an excellent method for encouraging students to discuss and for all students to have an opportunity to learn through reflection and verbalization (Srinivas, 2011). It is particularly helpful for shy or reticent students because they have a chance to "practice" verbalizing their answer one-on-one before sharing with the whole class.

Three-step interview. According to Srinivas, (2011) the three-step interview is a strategy that is effective when students solve problems that have no specific right answers. Three steps are involved in this process to solve problems. First, students form dyads; one student interviews the other. Next, students switch roles. Lastly, the dyad links with a second dyad. This four-member learning team then discusses the information or insights gleaned from the initial paired interviews.

According to AL-Rifaee, (2006) to establish this strategy teachers follow these steps:

Divide into teams of four, numbering the members from 1 to 4. Introduce a discussion topic such as "Should students have to wear a school uniform?" The three steps then are introduced, with perhaps 2-3 minutes being allocated to each step. The steps are:

Step 1: Nos. 1 and 2 interview each other. Nos. 3 and 4 interview each other.

 Step 2: Nos. 1 and 3 interview each other. Nos. 2 and 4 interview each other.

Step 3: The 4 members then discuss the topic, and attempt to reach a consensus.

Jigsaw strategy. Jigsaw is an efficient way for students to engage in their learning, learn much and quickly, and share information with other groups. Each group needs members to do well in order for the whole group to do well. Jigsaw increases interaction and establishes an atmosphere of cooperation and respect for other students. In the Jigsaw grouping strategy, each team member is responsible for learning a specific part of a topic. All the members of the class are organized into groups then rearranged in new groups to share their learning. After meeting with members of other groups, who are the "expert" in the same part, the "experts" return to their own groups and present their findings. Team members then are quizzed on all topics. This is an excellent method for improving students' teamwork and communication skills (Srinivas, 2011).

Three-minute review. Three-minute review is used when the teachers stop any time during a lecture or discussion and allow teams three minutes to review what the teacher has said with their group. Students in their groups can ask question to the other members or answer questions of others (Srinivas, 2011). The three-minute review is an activity that gives students a time to reflect on what they have gained from a lecture or discourse, and to ask questions that clarify areas that they may feel unclear about. The three-minute review provides a chance for students to stop, reflect on the concepts and ideas that have just been introduced, make connections to prior knowledge or experience, and seek clarification (AL-Rifaee, 2006).

Corners. Corners is a technique that can promote participation through physical movement. This strategy has students move to a corner of the room based on their answers to a teacher-determined topic. Students discuss with others in the corner, then listen to and respond to ideas shared from those in other corners (O'Connor, 2013). For example, a teacher might post a statement about different aspects of a country (such as economic system, government, physical features, and cultural traditions) and ask participants to choose one and

write down on a piece of paper the topic along with why they wish to discuss it. Then

students go to their corners and discuss the topic with their classmates (AL-Rifaee, 2006).

Group discussion. Group discussion is a method that is used to promote teamwork, share

ideas and experience, and build leadership. The drawbacks of this method are the difficulty in

assessing each individual member of the group reliably and discussion held in one group is

not accessible to other groups (O'Connor, 2013). According to Moguel (2004), the

involvement of children in small group discussions provides an opportunity to develop their

understanding, and ability to think as well as to encourage them to work harder (Moguel,

2004). These strategies of cooperative learning are successful only if the teachers are

prepared to learn themselves first.

The Role of the Teacher in Cooperative Learning

Preparing for the lesson. The teachers should evaluate his/her learners in order

to find out what exactly students already know before teaching. Teachers must contemplate

many important roles in cooperative learning to teach efficiently, that is: specifying

objectives, grouping students, explaining tasks, monitoring group work, and evaluating

achievement and cooperation (Faryadi, 2007).The teacher has a very important role in

cooperative learning. To have an effective and successful cooperative learning group teachers

have to know their students very well. Placing students in groups is not an easy process and

must be decided with care. Teachers should consider the different learning skills, cultural

background, personalities, and gender when arranging students in cooperative groups. Much

time is devoted in preparing the lesson for cooperative learning. Teachers who set up a good

cooperative lesson teach students to teach themselves and each other. Students learn from

their peers and become less dependent on the teacher for help (Dahley,1994).

Decision making. When planning the lesson , the teacher has to choose the educational

goals and identify cooperative strategies to be achieved by students at the end of group work.

Then the teacher decides the number of members of the group and determines the roles of the students to ensure the interdependence in the group and all students working together in their assigned role. In addition, the teacher works to prepare an appropriate educational environment and arranges the classroom well. All the students sit in their seats close together, have easy visual communication, and make the interaction between them comfortable (AL-Rifaee, 2006).

During the lesson. During the lesson, the teacher has to inspect the groups' work and walks around the students during the performance of the task observing their behavior and interactions with each other. Moreover, the teacher provides feedback and encourages students about their good use of skills and helps students to do the task in light of what the teacher noticed during the inspection of the performance of students. Finally, if there is any problem between students in the interaction, the teacher intervenes to teach students the skills and provides more effective procedures (AL-Rifaee, 2006).

Following the lesson. The last part of the teacher's role in cooperative learning is assessing student learning. The teacher can ask students to show what they have learned from the skills and tasks. For example, students may do public presentations, summarize important ideas about the lesson, or provide a brief summary about their experience of cooperative learning. Evaluation by the teachers provides students with feedback on the understanding of content and concepts. Teachers can use rubrics to evaluate students' performance. Students also can participate in the evaluation of their learning from each other by using a peer fidelity checklist. Finally, the teacher may conclude the activity of each group by encouraging students to share answers and papers and summarize the main points of the lesson (AL-Rifaee, 2006).

Prepare Student for Cooperation. This is a critical step. The teacher should tell students about the rationale, procedures, and expectations with this method of instruction. Students need to know that the teacher is not trying to force them to be friends with other people, but is asking them to develop working relationships with people who come together for a specific purpose. The teacher should share with students that they will need to do this later on in life. The teacher should explain that using cooperative skills might feel awkward at first, like any new experience, such as throwing a football or playing a guitar for the first time. The teacher should stress that it will take time to learn the necessary cooperative skills. The teacher should explain the three basic rules of cooperative learning: stay with your group, ask a question of your group first before you ask your teacher, and offer feedback on ideas and avoid criticizing people (Lundgren, 1994).

Organizing the classroom. Students work more effectively in a well-organized classroom rather than one that is cluttered or unpredictable. Students are expected to be organized. However, if the physical environment is not the same, the example for the students is not consistent (Lundgren, 1994; Naseem & Bano 2011). Students in groups should face each other as they work together. It is helpful to number the tables so groups can be referred by number or each group can choose a name (Lundgren, 1994).

Cooperative learning works best when group size is small. The ideal cooperative learning classroom has about 15 to 20 students. Students are usually grouped in clusters of three to five. The larger the group size the more difficult to organize. If attendance is a problem, groups may need to redistribute frequently. Also, if the class begins with activities that can be completed in one class period, students will not be faced with new group members in the middle of an activity because of absences (Lundgren, 1994; Naseem & Bano 2011).

Each group should be properly spaced to maintain eye-to-eye contact, share materials without bumping elbows, and communicate without disturbing other groups. Barriers should be minimized to facilitate movement. Different groups should be spaced far enough to avoid conflict. Enough room should be provided for the teacher to aid students and to monitor group action and behavior. The class set up should be flexible enough for students to work separately when necessary (Lundgren, 1994; Naseem & Bano 2011).

The role of the teacher in collaborative learning does not mean only preparing and planning lessons and evaluating students. It also means teachers should have a background about student development, individual differences, cultural background, and gender when arranging students in cooperative groups. The purpose of this is to ensure the quality and success of the educational process.

Student Development

Adolescence as the period in human growth and development that occurs after childhood and before adulthood, and spans from ages 10 to19. It represents one of the critical transitions in the life span, and is characterized by a high level of change that is second only to that of infancy. Adolescents depend on their families, communities, schools, health services and workplaces to learn a wide range of important skills that can help them to deal with the pressures they face successfully and make the transition from childhood to adulthood (World Health Organization, 2015).

The effective teacher is one who serves as teacher and mentor at the same time. Students need teachers who understand their needs as well as specialize in their curriculum. The teacher's knowledge about the students' characteristics and the foundations of psychological development are extremely important to be able to deal with students and help them to solve the problems that they face due to the nature and changes of the

adolescence stage. High school students range in age from 14 to 18. With this wide range of ages come, a wide range of capabilities individual differences and different developmental characteristics in the physical, psychosocial, and cognitive growth.

Psychosocial development. The process of adolescence is a period of preparation for adulthood and during this time several key developmental experiences occur. Besides physical and sexual maturation, these experiences include developing social skills, economic independence, identity, and relationships with adults (World Health Organization, 2015). Psychosocial developmental characteristics include the formation of friendships and the increase of social interactions, which have the potential for boosting self-esteem and reducing anxiety. Allegiance and affiliation shifts from parents and teachers to friends and peers, consequently social tasks and situations are handled without adult supervision and advice. In addition, self-esteem changes due to adolescents' home and school lives. Their preoccupations with the self can lead to critical self-examination and, subsequently, to the formation of self-perceptions. Argumentative and aggressive behaviors become evident and often disturb parents and teachers (Pennington, 2009).

Cognitive development. Cognitive changes such as higher levels of cognitive functioning and moral and ethical decision-making are now possible and often guide behavior. Developmental diversity leads to varying abilities to think and reason, and cognitive ability is often affected by overall socialization perspectives. Language and overall verbalization skills increase, allowing improved communication in both school and home situations (Bucher, 2010). As a teacher of library and research course for high school students, I would like to make the course attractive and interesting to my students to increase their participation in the classroom. As a result, I find that the best solution and effective educational innovation that I can use is the cooperative learning strategy. This strategy may help students like the course and find it more enjoyable (Dotson, 2001).

Cooperative learning will allow me to act as a guide and leader of the educational process. It also increases student achievement at various levels of study, encourages social interaction between students, facilitates participation and increases students' self-confidence. Cooperative learning has been found to be a successful teaching strategy at all levels, from pre-school to post-secondary education. Young adolescents need to socialize, be a part of a group, share feelings with others, receive emotional support, and learn to see things from other perspectives. Therefore, cooperative learning is a good strategy for these needs of these students (Dotson, 2001).

Curriculum of Library and Research Course

Library and information science can be divided into five main sections, which are: sources of information, information institutions, information operations, information services, and administration in libraries and information centers. The importance of library science is the advancement of scientific research. In fact, the first academic study of libraries and information on the global level was in 1887, by the American scholar, Melville Dewey, the founder of Dewey decimal classification (Hamada, 1981).

Saudi Arabia offers the curriculum of the library and research course to high school students' aged 16-18. Each grade has different educational goals and multiple topics. Curriculum for first grade of high school contains four units, two will be in the first semester and the other two will be in the second semester. The general goal of the curriculum for this grade is to give the students knowledge and skills necessary to access and use sources of information and benefit from them. Units of the first semester are the information centers and libraries, while units of the second semester are about the organizing of information sources and information networks. The content of the text book used is about the kinds of libraries such as schools, universities, and children's libraries and, library services such as circulation and reference services.

The kinds of information and how libraries are organized through the Dewey decimal classification and the Library of Congress classification are explored during second semester of the first year. The second grade students, age 17, take the curriculum for an academic year. The general goal of the curriculum for second grade is providing some basic concepts and terminology in library and information science. The whole text book discusses sources of information such as encyclopedias and dictionaries and thinking skills. The third grade students, age 18, learn to prepare classroom research skills, how to research and investigate, and identify the steps the research.

Cooperative learning gives students a good chance to manage the classroom with a degree of independence appropriate to high school aged students, develops mutual positive dependence between the students in the work team, promotes mutual respect between students who have different ideas from their classmates, promotes creative thinking, enhances self-esteem and self-understanding, and increases incidences of positive behavior (Dotson, 2001).This is the right strategy that fits the age of the students and their various characteristics in high school.

Methodology

The educational process is not based on educational content alone, but on the content and the way of teaching together. It should be centered on the learner, so it is necessary that the teachers constantly improve their methods. Equally important, is the choice of appropriate activities to achieve the desired objectives and positive interaction that leads to personal growth and the development of positive social skills. Therefore, teachers need an education strategy that improves teamwork, effective communication, cooperation, mutual support, participation and social interaction. Cooperative learning as an instructional strategy that can achieve the objectives of learning and is an excellent way to increase students' participation.

The overall goal of this study was to investigate the effectiveness of cooperative learning in improving students' participation. This goal was achieved by seeking an answer to the research question, "does using cooperative learning strategy in teaching library and research to Saudi high school students increase their classroom participation?"

Participants

The participants in this study were students in the first grade of high school. The identity of the participants were not known, so the ethnic background of these individuals could have been any of the following that made up the school's population: Saudi citizen, Yemeni, Egyptian, and Sudanese students. It was almost a culturally homogeneous sample because participants were from Saudi Arabia and neighboring Arab countries and they were living and studying in the same cultural environment. There were a total of 150 students divided into 5 classes of 30 students. This study consisted of 30 female students from the age of 16. The students were selected at random to work in the cooperative learning group (experimental group) and individualistic (control group), both having 15 students.

Setting

Data was collected from an urban high school in Western Saudi Arabia during the fall semester of 2015. The Fourth high school in Jeddah is one of the public schools that applies the Ministry of Education curriculum. It was established in 1983 and is located in the south of Jeddah near of King Abdulaziz University. The school has three grades: first, second, and third for high school students. The school is public with modern, big buildings. There are 630 students of Saudi citizenship and some other nationalities and there are approximately 40 teachers. All of the teachers were native to Saudi Arabia.

The researcher justified choosing this school because it was suggested by the Ministry of Education of Saudi Arabia as a place to conduct research. In addition, the researcher completed

student teaching at this school, so felt a sense of community in the Fourth high school. Also, it has a strong reputation in education because the school fosters the teachers' growth by having them attend conferences in education to share experiences with others in the field of education. Supportive mentors and supervisors provide to teachers constructive feedback to strengthen their teaching. In addition, the school only accepts students who have high academic achievement in the middle school.

Design

This study was an experimental model. The study took place in ten classes during the first two week period of the school year. The students received instruction about working in cooperative groups and practicing before the study began. The researcher trained the students to implement the cooperative learning in the classroom in following areas: developing a classroom climate for cooperative learning, team building techniques, and social skill for team work. Then she divided students into three cooperative groups with each group consisting of five students, taking into account individual differences and needs including learning styles and student personalities. Each student in the group chose a role, and then she asked each group to sit in a circle. After that, the researcher described the value of collaborative learning through the development of their personality, increasing their capacity to make decisions, and helping them respect each other. Lastly, the author distributed cards to have them write the name of the group on it.

For each block of material, one class used the cooperative learning structures and the other did not receive instructions in this manner. The group not receiving cooperative learning structures as a teaching method, participated with lecture and individual assignments. The researcher created lesson plans that included names of lessons, educational goals and value for each goal, content, teacher preparation, learning activities and the period

of time for each activity, and materials (Appendix A).The textbook she used was Library and Research, published by Ministry of Education / Saudi Arabia.

The researcher taught the students the Organization of Information Sources unit by collaborative learning for students of the experimental group.While the control group received more traditional lecture/discussion teaching methods on this same unit.The researcher divided the 30 students into two groups of 15 students each. The experimental group had three cooperative groups and each group consisted of five students.While the other 15 students in the control group she taught in a traditional method of teaching.

Cooperative learning structures are methods of organizing the interaction of individuals in a classroom. Step-by-step procedures are used to present, practice, and review material. Some strategies regulate interaction between pairs, some are best for teamwork, and others involve the entire class. The researcher used the following instructional methods:

1-Think-Pair-Share: The researcher posed a question to the class and the students thought about their responses. Then students paired with a partner to talk over their ideas. Finally, students shared their ideas with the class.

2- Three-minute review: The researcher stopped any time during a lecture or discussion and allowed teams three minutes to review what they had heard with their group. Students in their groups could ask questions to the other members or answer questions of others.

3- Group discussion: The researcher posted a question on the board, then all group members actively engaged in a conversation about the question. Then, I went from group to group and sat in for a few minutes to listen to the conversation. Finally, I chose one of the members from each group to share their answer in front of the whole class.

Moreover, the researcher prepared worksheets provided to both groups. Students were asked to work on worksheets and they worked in teams. The researcher circulated through the class and watched social skills, level of cooperation, level of interaction, level of participation and roles of the team members. She guided and taught about these social skills. After watching a team showing better performance than other teams, the researcher asked the rest of the groups to watch that team. For the purpose of this study, cooperative learning was defined as the use of small group interaction to facilitate instruction and student participation. Participation time was defined as one of the following behaviors: students taking notes, speaking in class on topic, writing on the board, and engaging in class activities.

Every student was given a role to play in the cooperative work group. They worked in groups provided with information and examples of their roles and responsibilities. Students were also informed that they had the flexibility to assist other members in their group in performing their roles. The lesson was a 20-minute lecture. During the last 25 minutes of the period, students participated in a cooperative learning activity.

Data Collection

In order to collect the data, the researcher needed to obtain approval from the director of the school. After receiving this approval, the researcher visited the school at different times on different occasions. The researcher asked students in their classrooms if they wanted to participate. In this particular study the researcher wanted to gain data using quantitative techniques. This was done by participant observation. The researcher collected numerical data to indicate the impact of cooperative learning on students' participation. Data collection was observation. In addition, students completed a questionnaire at the end of the study (Appendix B). The questionnaire survey technique was a very effective data collection tool that enabled large volumes of data to be collected over a short period of time and can be self-administered (McLeish, 2009).

The questionnaire developed by the researcher was distributed on the last day of the study. Questionnaires were given to the experimental group. Students reviewed the questionnaire and took approximately ten minutes to respond in writing and returned it to the researcher. This questionnaire, comprised of twenty questions focused on the impact of cooperative learning in improving students' participation (McLeish, 2009). These questions included a variety of items, such as the impact of cooperative learning in facilitating the learning process, increasing classroom participation, and encouraging interaction among students. Students were asked to respond to statements using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). This scale reflected whether or not a collaborative learning had a positive impact in increasing classroom participation and interaction between students (Ahmad, 2010).

Data Analysis

Throughout the study, the researcher implemented and measured the use of different strategies of cooperative learning to increase student participation. The way to measure students' participation is through direct observation. The researcher analyzed the results of the research question using direct observation. To better analyze the observations, the author used a participation rubric (Appendix C) to observe how students were participating, such as speaking in class on topic, taking notes, writing on board, and engaging in class activities.The data collected from observation was tallied and counted to compare participation rates between the two classes. Mean of participation was calculated and compared. The range of participation rates was also examined. The obtained data was translated into graphs and tables in order to provide a comprehensive and easy-to-understand presentation of the data for in-depth analysis.

Findings

The purpose of this study was to investigate the effects of cooperative learning on high

school students' participation in Saudi Arabia. The results of this study were obtained through

two data collection methods. First, results were based on an observational checklist of

classroom behaviors for the experimental group and control group. The gathered data was

analyzed through the use of descriptive statistics. Additionally, data was collected from a

survey that used a Likert-type scale and was given to the experimental group. The survey

included 20 questions, which were divided into three sections: the impact of using

cooperative learning on classroom participation and interaction, individual students' feelings

and social skills, and learning outcomes.

Classroom Observation Data

This research study includes an observational checklist of classroom behaviors that the

researcher recorded during her instruction of three lessons for the control group and three

lessons for the experimental group (six lessons in total). The researcher wanted to determine

whether cooperative learning had a practical, observable impact on the following classroom

behaviors: speaking in class on the lesson's topic, note taking, writing on the board, and

engaging positively in classroom activities. When the researcher observed a student

performing any of these actions in either class, she noted that occurrence on the checklist

sheet (see Appendix C). The researcher also made notes regarding positive or negative

behaviors that were observed when students interacted with each other for the control group

and experimental groups' classes. The results of this observation rubric are discussed in the

following section.

Lesson Observation Results

Description of class 1

The first lesson was organizing information sources, which talked about the definition of

classification, the sources of information that are needed to classify, and the benefits of

classification in the library. I used more than one method to deliver the lesson to the students. I used projectors, speakers, power point and the smartboard to present the lesson as well as the diversity of cooperative learning strategies such as think-pair-share, group discussion, and three-minute review. In addition, I worked with transparency and clarity when explaining the lesson and when moving from one step to another. Also, the method of teaching was accessible and interesting for the students. At the end of the lesson, to measure the students' level of understanding, I wrapped up the lesson with questions such as, "What was the main idea of the lesson? (see Appendix A, lesson Plan 1)

The first lesson showed that the cooperative learning strategies used in the classroom for the experimental group had a strong impact on the behaviors that the students showed during class time, compared with the control group. Each lesson involved the same materials and worksheets. This trend of greater participation and engagement in the experimental group continued throughout the length of study. The students' percentages show that there is a significant difference between the experimental group and the control group. In Lesson 1, in the experimental group, 13 of the 15 students (86.6%) spoke with their classmates on the lesson's topic, 6 (40%) took notes, 4 (26.6%) volunteered to write on the board, and 10 (66.6%) were actively engaged in the classroom activities, as defined by the researcher's observational rubric (Appendix C). In contrast, the control group showed far fewer observed actions in the classroom. Only 2 of 15 (13.3%) of students spoke with their classmates on the topic, none of the students took notes, none wrote on the board and 4 of 15 (26.6%) were engaged in classroom activities. Table 1 indicates the participation rubric data results for the experimental and control groups in lesson 1.

Table 1

Participation Rubric data results for Experimental and Control groups

Class 1	Experimental group			Control group		
Classroom Action	N	Number of students	% of students	N	Number of students	% of students
Speaking in class on topic	15	13	86.6%	15	2	13.33%
Taking notes.	15	6	40%	15	0	0%
Writing on board.	15	4	26.6%	15	0	0%
Engaging in class activities.	15	10	66.6%	15	4	26.6%

Description of class 2

The second lesson was the Dewey decimal classification, which talked about advantages of the Dewey decimal classification and the method of Dewey decimal classification. As I did in the previous lesson, I used projectors, speakers, power point and the smartboard to present the lesson as well as the diversity of using cooperative learning strategies. In addition, I worked with transparency and clarity when explaining the lesson and when moving from one step to another. Also, the method of teaching was easy and interesting for the students. (see Appendix A, lesson Plan 2)

The second lesson showed that the cooperative learning strategies used in the classroom for the experimental group also had a strong impact on the behaviors that the students showed during class time, compared with the control group. Each lesson involved the same materials and work sheets. The positive influence is still clear in the experimental group in the second lesson. In Lesson 2, in the experimental group, 12 of the 15 students (80%) spoke with their classmates on the lesson's topic, 4 (26.6%) took notes, 3 (20%) volunteered to write on the board, and 9 (60%) were actively engaged in the classroom activities, as defined by the researcher's observational rubric (Appendix C). In contrast, the control group showed much

fewer observed actions in the classroom. Only 2 of 15 (13.3%) of students spoke with their

classmates on the topic, 1 of 15 (6.6%) took notes, 1 of 15 (6.6%) wrote on the board and 3 of

15 (20.6%) were engaged in classroom activities.

Table 2

Participation Rubric data results for Experimental and Control groups

Class 2	Experimental group			Control group		
Classroom Action	N	Number of students	of % students	N	Number of students	of % students
Speaking in class on topic	15	12	80%	15	2	13. 3%
Taking notes.	15	4	26.6%	15	1	6.6%
Writing on board.	15	3	20%	15	1	6.6%
Engaging in class activities.	15	9	60%	15	3	20%

Description of class 3

    The last lesson was about indexing in the library, which talked about the definition of

indexing and that the purpose of indexing was to organize information sources to access

information easily. In this lesson, I gave students a worksheet (see Appendix A, lesson Plan

3). As we see in table 3, there was positive growth from the first lesson to the last lesson,

students have reached 100% in engaging in class activities, which proves that this strategy

was very beneficial for the students. In Lesson 3, in the experimental group, 9 of the 15

students (60%) spoke with their classmates on the lesson's topic, 7 (46.6%) took notes, 3

(20%) volunteered to write on the board, and 15 (100%) were actively engaged in the

classroom activities, as defined by the researcher's observational rubric (Appendix C). In

contrast, the control group showed far fewer observed actions in the classroom. Only 2 of 15

(13.3%) of students spoke with their classmates on the topic, none of the students took notes,

1 of 15 (6.6%) wrote on the board and 4 of 15 (26.6%) were engaged in classroom activities.

Table 3

Participation Rubric data results for Experimental and Control groups

Class 3	Experimental group			Control group		
Classroom Action	N	Number of students	of % students	N	Number of students	of % students
Speaking in class on topic	15	9	60%	15	2	13. 3%
Taking notes.	15	7	46.6%	15	0	0%
Writing on board.	15	3	20%	15	1	6.6%
Engaging in class activities.	15	15	100%	15	4	26.6%

In addition to the observational checklist results in Tables 1, 2, 3, above, the researcher made general notes regarding student behavior, classroom atmosphere, and other factors. In classroom one in the experimental group, the researcher noted that students were far more actively engaged and showed such behaviors as respectful, cooperative interaction. They used body language and loud, enthusiastic voices to communicate. They also clapped their hands to encourage each other, and stood to answer questions when the teacher asked the students questions. All of these behaviors indicated to the researcher that the students were engaged in the classroom effectively.

Participation summary over 3 lessons

Figure1. Averge Participation over three lessons
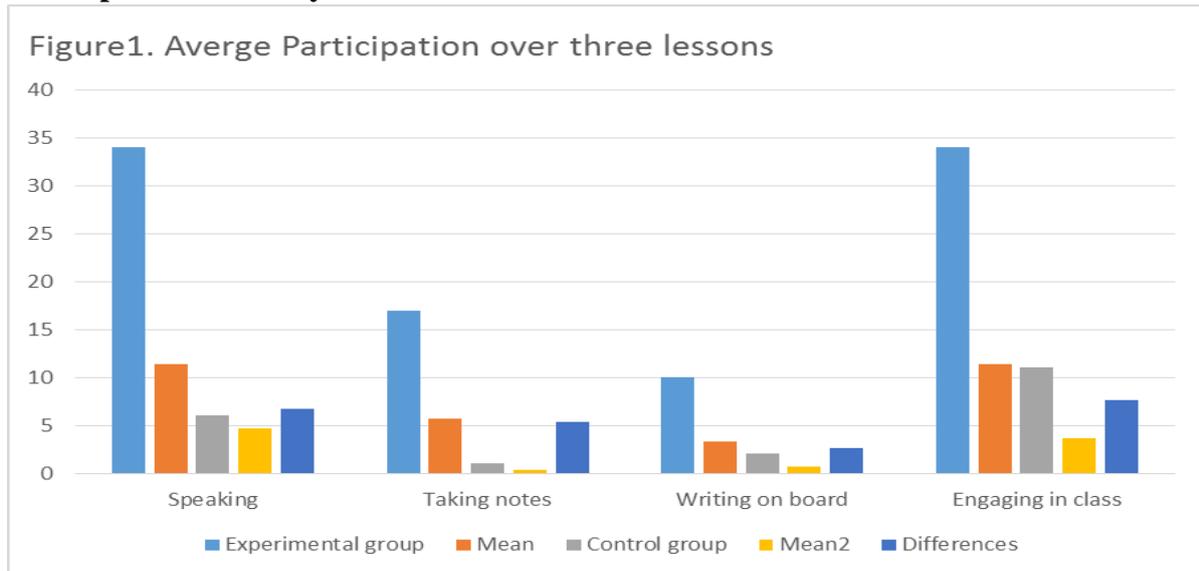
As we seen in figure 1, there was a significant difference between the experimental group and the control group on participation over three lessons. There was a significant difference between mean scores (6.67) of speaking in class on topic developed by cooperative learning and mean scores (7.67) of engaging in class activities between the experimental and control group (See Appendix D). This indicates that the performance of the experimental group in speaking in class on topic and engaging in class activities was higher as compared to the control group on participation over three lessons. Therefore, it reveals that the students taught by the cooperative learning method performed better as compared to the students taught by the traditional method of teaching.

Survey Data

The researcher designed a Likert-style survey to investigate students' opinions and attitudes towards the effectiveness of cooperative learning strategies (see Appendix B). The researcher identified three aspects of cooperative learning: the impact of cooperative learning on learning outcomes, the effect of cooperative learning on classroom participation and positive classroom interactions; and finally, the effect of cooperative learning on individual students' feelings of self-efficacy, social skills and confidence. In this survey, number 1

represents strong agreement with a positive statement regarding cooperative learning. The results of all survey data are summarized in table 4 (see Appendix E), as well as discussed below, by category. Student participants generally agreed that cooperative learning was a beneficial teaching method. The experimental group had a positive attitude toward cooperative learning strategies, as measured by the survey items. The item with the highest mean which shows the most disagreement with the statement of cooperative learning was item 13,"Teachers use a lot of cooperative learning strategies in the classroom, which had only 20 % (3 of 15) agreeing with this statement. Students like cooperative learning, but teachers do not use it. Findings also indicated a high score of the experimental group's responses to item 2, which was "cooperative learning enhances class participation" Eighteen percent of the respondents strongly agreed with this statement.

Effective of cooperative learning on classroom participation and interaction

The researcher created six survey questions to investigate the effect of cooperative learning on classroom participation and interaction, as reported by the study participants in the experimental groups. The survey items that addressed this topic were: Item 1, 2, 3, 6, 9 and 10 (see Table 4, below).

Table 4

The Students' Responses on Classroom Participation and Interaction Items

Item	Mean
1-Cooperative learning facilitates greater student participation in class activities.	1.46
2-Cooperative learning enhances class participation.	1.2
3-Cooperative learning improves my attitude towards participation.	1.46
6-Cooperative learning makes me express opinions, argue, debate, negotiate, and ask questions.	1.53

9-Cooperative learning has helped me to raise my hand to answer and discuss.	1.26
10-Cooperative learning has helped me to raise my hand to answer and discuss.	1.33

In general, the experimental group had a positive attitude toward cooperative learning strategies, as measured by the survey items. Item 2, which measured the effect of cooperative learning in enhancing class participation, showed the biggest difference in mean responses, as 80% (12 of 15) of the experimental group "Strongly Agree", and it had a mean response of 1.2. The other items showed that the students in the experimental group had a positive overall response when asked about their opinions of the effect of cooperative learning on their participation and interaction in the classroom. The experimental group's responses to these items were generally very positive, with no mean score for any survey item higher 1.53.

Effective of cooperative learning on learning Outcomes

The researcher created five survey questions to investigate the effect of cooperative learning on learning outcomes, as reported by the study participants in the experimental groups. The survey items that addressed this topic were: Item 4, 7, 11, 12, and 13 (see Table 5 below).

Table 5. The Students' Responses on Learning Outcomes Items

Item	Mean
4-Cooperative learning makes learning easier.	1.8
7-Groups activities make the learning experience easier.	1.46
11-Cooperative learning has a positive impact on the students about learning.	1.6
12-Cooperative learning is a good example for active learning strategies in the educational process.	1.46
13-Teachers use a lot of cooperative learning strategies in the classroom.	2.66

In this aspect, the experimental group had a positive attitude toward cooperative learning strategies, as measured by the survey items. Item 7, "Groups activities make the learning experience easier showed the biggest difference in mean responses, however, as 53% (8 of 15) "Strongly Agree" and had a mean response of 1.46. Furthermore, Item 12, " Cooperative learning is a good example for active learning strategies in the educational process showed the biggest difference in mean responses, however, as 60 % (9 of 15) "Strongly Agree" and had a mean response of 1.46. The item with the highest mean which shows the most disagreement with the statement of cooperative learning was item13,"Teachers use a lot of cooperative learning strategies in the classroom, which had only 20 % (3 of 15) agreeing with this statement.

Effective of cooperative learning on individual students' feelings and social skills

The researcher created nine survey questions to investigate the effect of cooperative learning on individual students' feelings and social skills, as reported by the study participants in the experimental groups. The survey items that addressed this topic were: Item 5, 8, 9, 14, 15, 16,17,18,19, and 20 (see Table 6, below).

Table 6

The Students' Responses on Individual Students' Feelings and Social Skills Items

Item	Mean
5-Cooperative learning makes students who work together achieve more than when they to work alone.	1.46
8-Cooperative learning enhances good working relationships among students.	1.4
9-Cooperative learning encourages interaction between students.	1.26
14-Cooperative learning contributes in development of a real collaborative skills among students.	1.66
15-Cooperative learning strategy increases students' motivation to learn.	1.66
16-Cooperative learning strategy motivates students to use more of the mental processes of thinking.	1.46
17-Cooperative learning strategy promotes self-management skills for students.	1.73

18-Cooperative learning strategy promotes self-confidence.	1.53
19-Cooperative learning strategy increases the incidence of positive behavior and decreases negative behavior.	2
20-Cooperative learning strategy helps students to solve problems, made decisions, plan and organize their work.	1.4

Based on students responses 73% (11of 15) indicated that they "Strongly Agree" with item 5, "Cooperative learning makes students who work together achieve more than when they to work alone "The experimental group's responses to these items were generally very positive, with no mean score for any survey item higher 2. The item with the highest score showing disagreement with the statement was item 19, "Cooperative learning strategy increases the incidence of positive behavior and decreases negative behavior", which had 33% (5 of 15) of the experimental group responded "Strongly Agree". The other items showed that the students in the experimental group had a positive impact response when asked about their opinions of the effect of cooperative learning on individual students' feelings and social skills.

In summary, this study met its goal by successfully increasing student's participation. There was a measurable an increase in participation in the cooperative groups. The data shows that there was an increase in participation when students were in organized groups and also when given assigned group roles. As can be seen in Table 4, the students who worked within the cooperative groups scored higher than those who worked individually. The analyses of the data suggest that more interaction took place within the cooperative groups. The findings of the study revealed that cooperative learning method is significantly more effective than the traditional approaches of teaching at high school level.

Discussion

From my years of teaching and experience I knew that cooperative learning was not being effectively implemented in most classrooms. I also thought that teachers were not being

provided with effective training or literature on the topic. Therefore, this study aimed to examine whether or not using the cooperative learning strategy in teaching library and research increases students participation. Upon analysis of the data, the results support the research question of the study that cooperative learning has an overall positive effect of increasing the classroom participation of students. The results indicate that the students in the experimental group consistently scored higher on the observation rubric, compared to those in the control group. The difference between observation rubric scores for the experimental group were higher than those of the control group, which was taught by using traditional learning methods.

The findings of this study confirm perspectives explored through the literature review, which indicates that cooperative learning improves the classroom participation and interaction, learning outcomes, and social skills of the students. This section will discuss the relationship among the literature review and these results, implications for practice, implications for further research, and the limitations of the study.

Relationship of Literature Review and the Results

Cooperative learning is a successful teaching tool supported by several researchers. Almost all the findings of this study are in line with the previous research studies conducted Drakeford (2013) conclude that the implementation of on cooperative learning. My data and the cooperative learning strategy has positive impacts on the students' participation, specifically helping them to speak in the class, raise their hands, and engage in class activities.This would also be consistent to the findings of Maher (2010) who claimed that the use of cooperative learning increased the students' engagement in their classes and made them more excited.

The findings of this study are in congruence with Canan's (2009) study that cooperative learning and inter-group relations showed positive effects on social relationships. The present study was also supported by McLeish (2009), who conducted an empirical study at Knox Community College. He found that students taught by cooperative learning outperformed those who were taught by lectures. The variety of contexts that the cooperative learning strategy has been studied in, and its consistently positive results, suggests that educators should try to apply cooperative learning strategies in their own classrooms and curricula.

This finding suggests that learning is more effective when students are actively involved in sharing ideas and working cooperatively with other students to complete academic tasks. Cooperative learning experiences appear to promote higher student participation. Therefore, when students participate actively in productive learning processes, they are able to negotiate shared meaning and construct meaningful understanding, which is not always possible in a teacher-directed approach. Working in small groups appears to promote a sense of individual responsibility and a love of challenge in the student, thereby increasing motivation for learning. If students are highly motivated to learn, their level of participation will also be high.

Implications for practice

Results of this study have many implications for library curriculum teaching methods used in Saudi Arabia schools. The study emphasized the value of using cooperative learning rather than the traditional method in teaching library due to its positive influence on students' participation as well as the students' social skills. Educational administrators need to take note of the research surrounding these teaching methods and formulate policy that empowers the use of cooperative learning strategies, funds professional development and supports implementation of these practices in classrooms.

Moreover, textbooks for high school students are generally written for teaching through traditional approaches. A committee of experts may be appointed to prepare the textbooks for teaching through the cooperative learning method approach. In addition, offering workshops and training courses for new teachers related to cooperative learning would be helpful in implementing this research based strategy. Cooperative learning centers may also be established in universities to provide training and to develop material in the area of cooperative learning methods.

Classroom level changes. Based on my results there are going to be numerous changes made in my classroom. First, I will not explain lessons without using the cooperative learning strategy. Keeping this in mind, I will take the extra steps when planning the lessons to make sure students are organized and aware of what their roles are and also those of their group mates. I will use random group assignments to group students. Random group assignments have an advantage because students perceive them as being fair. However, randomly selected teams should not stay together for more than a couple of activities if the teams turn out to be homogeneous. Groups should reflect life. The group should be mixed socially, racially, ethnically, by gender, and by learning abilities. If students are allowed to choose their own groups, there may be less task-oriented behavior, and the homogeneity that usually results will not allow them the opportunity to hear views that may differ from their own. Heterogeneity mirrors the real world, which encompasses encountering, accepting, and appreciating differences. If a group finds that things are not working out, members may complain that they want to switch groups. If students are told that they can change groups after they have proven their ability to work effectively for a given time, maybe two weeks, they often decide they don't want to switch.

As the analyses of the data suggest, the more interaction that took place within the cooperative group, the higher scores they received in the participation rubric for example in

class 1 with 86% speaking in class on topic. Class 1 was more efficient and enjoyable. The reason for that was lesson content, it was the introduction to the unit and easy for the students. After analyzing the results of my research question using direct observation, I witnessed more students working cooperatively, students sharing strategies, actively listening to other group members, and class work being finished by the end of the hour. During the class activity, students were more engaged than in the traditional classroom.There was a greater level of involvement with most students actively participating. There was a high level of chatter as students were engaged in lively discussion of the material given.

Implications for further research

Although the study was able to achieve the purpose and objectives and answered the research question, the following are suggestions for further studies to be conducted, first, for further research on this topic, a much larger sample size should be incorporated into a study. Using the same methodology, it would be advisable to expand the number of students to include first, second, and third grade of high school. Moreover, future studies need to look at other locations and other areas in Saudi Arabia to determine the implications of cooperative learning on the participation of students. It would be a better idea in future studies to gather data from multiple school districts in multiple areas.

Secondly, this study was conducted on students' participation only. The researcher expects that cooperative learning impacts other variables. Therefore, other studies should focus on effectiveness of cooperative learning strategies on skills such as transmission learning effect, discovery, and problem solving. Studies may be conducted to investigate the comparative effectiveness of cooperative learning methods in different subjects at different levels of education. Further studies may be conducted to measure for the other outcomes of

cooperative learning methods i.e. peer relations, social skills and motivation for different subjects.

Thirdly, future studies should focus on the long-term impact of cooperative learning on participation. This can be achieved by increasing the experimental period and students' following up with performance of both the experimental and control groups for a period of one year or more.

Fourthly, the study participants were only females and came from one school. Future studies must incorporate both genders and determine the differences between males and females when it comes to cooperative learning.

Lastly, future studies can also look at the perceptions of students towards the cooperative learning strategy. This can be done by looking at their performance, their participation, their enjoyment of the learning process, and the challenges they face when using cooperative learning strategies.

Limitations

Although the study has produced results that meet the research objectives, several limitations related to the study existed. Firstly, the study was conducted only in one place (Jeddah City) thus there was no comparison with other educational institutions within the city and region.

Secondly, a very significant limitation to this study is the relatively small sample size. A larger sample may have yielded more valid results. The number of students in the two treatments was 30 participants. The sample size was small and therefore generalizations could not made. Having more classes to participate in the study, the study results would be more meaningful and provide a more robust data set.

Thirdly, in Saudi Arabia classes are separated by gender, in turn, the results obtained may have been biased due to sex. The study participants were female students aged 16 years, enrolled in library and research classes. This is because the schools in Saudi Arabia are separated by gender, so no mixed classes are available. Therefore, data collected from this population may not be applicable to male students.

Lastly, this study was also limited by the timing of the study .The length of the study was short. The study period was only two weeks during one semester and did not allow for a very detailed assessment to be made and thus, the study may not have been as able to obtain conclusive results. A longer time spent in the field may have attained a greater difference.

The purpose of this study was to investigate the effects of cooperative learning on students' participation of high school students in Saudi Arabia. The research on the advantages of cooperative learning suggests that it is a worthy topic of study in Saudi Arabia. The decision to research on cooperative learning in Saudi Arabia is based on reality that most of the schools in Saudi Arabia to date embrace traditional learning strategy. Traditional learning is teacher-centered method that focuses on memorization and rote learning. In Saudi Arabia, traditional learning is the commonly adopted strategy in schools.

As a result of changes in understanding of best practices in teaching, some schools of Saudi Arabia, especially larger schools, have increasingly worked to incorporate the cooperative learning approach into curriculum. Thus, the deficiency in the literature is something that this study was designed to address, especially in regards to creating a better understanding of cooperative learning and its effects on students' participation of high school students especially in curriculum of library and research course. This study was the first of its kind in the region, and thus is significant and timely.

Cooperative learning could be presumed to be a better approach that could benefit students in Saudi Arabia, only if it could be implemented properly. Teachers in Saudi Arabia often do not have time for consultation with students due to tight lesson schedules that have to be attended to on a daily basis. Furthermore, some students do not interact freely with teachers , be it in class or afterwards. Therefore, cooperative learning motivates students' critical thinking and helps them clarify ideas through debate and discussion with their peers.

In addition, cooperative learning techniques promote more learning than competitive or individual learning experiences. Adolescents may be better able to process information engaging in small group discussions with their peers rather than listening to a teacher's lecture. Consequently, the development of effective communication should not be left to chance. Adolescent students want to speak, interact, and show their opinion due to the nature of adolescence. Therefore, cooperative learning is a great opportunity for students to speak in the classroom freely, but in the framework and limits of the lesson.

Finally, I am proud of the results of this study. I am proud to provide to the department of Library and Saudi schools this humble effort to improve the level of educational performance and teaching method in Saudi Arabia. This study was a great breakthrough to me as a teacher to return to the world of education with full force and pride. Cooperative learning promotes affective and social benefits such as increased student interest in and valuing of subject matter and increases positive attitudes and social interactions among students who differ in gender, race, ethnicity, achievement levels and other characteristics. Thus use of cooperative learning approaches in the classroom help the teacher in achieving the overall goals of education because it incorporates intellectual, social and psychological aspects of education and develops interpersonal relationship among learners.

Cooperative learning could inspire the world citizenry to cherish, cultivate, and develop postive social attitudes, goals and skills towards improving the society. As a long-term strategy, it could be a key to finding a suitable answer for many problems haunting nations and human relationships within and among nations. Therefore, we learn to cooperate, and cooperate to learn, and therefore we are. The time is ripe and right to think of the greater benefits that cooperative learning is capable of offering via primary, secondary and higher education.

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Appendices

Appendix A

Lessons Plan (1)

Lesson	Subject	Goals	Teacher preparation	Learner activity	Period Time	Educational Means	Value
First lesson	Organizing of Information Sources	Students after the end of the lesson should be able to: 1.Know the definition of classification. 2.List the sources of information that are need to classify. 3. Recognize the benefits of classification in the library.	1-The students will receive instruction about working in cooperative groups and practice before the study begins. 2-Divide students into three cooperative groups and each group will consist of five students, taking into account individual differences and needs including learning style and student personalities. 3-Each student in the group choose role, and then I will ask each group to sit in a circle. 4-Students should maintain order, remain calm, and listen. 5-I will describe the value of collaborative learning through the development of their personality, increasing their capacity to make decisions, and helping them respect each other 6-I will distributed cards to make them write the name of the group on it.	The student listens attentively to the teacher in preparation for collaborative learning in groups where the students choose the role that they want.	5 minutes	Blackboard - chalk-colored pencils-cards for the names of the groups cards	Cooperation respect-Discipline

				I will preface the lesson by explaining the importance of organization in our lives and in the library.	Students discuss the importance of organization in their lives and mention examples of this.	5 minutes	Blackboard - chalk- colored pencils- Power point	Discussion Sharing their ideas with other classmates- Writing on the board.
				1. I will explain the concept of classification in libraries. It is division and organization of similar sources in a specific place and code. 2-List the sources of information that are needed to classify, such as: Encyclopedias and Reference books. 2. I will ask some questions and ask them to discuss. These are some of the questions: -What is the definition of classification? - What is the purpose of the classification? -Name the sources of information that need to be classified? 3- Think-Pair-Share: I ask questions to the class and the students think about their response. Then students pair with a partner to talk over their ideas. Finally, students share their ideas with the class.	Think-Pair-Share I ask questions to the class and the students think about their response. Then students pair with a partner to talk over their ideas. Finally, students share their ideas with the class.	10 minutes	The book- blackboard - chalk- colored pencils- Power point	Self-reliance - accept the others views – respect- Cooperation – Interaction- Answering questions in class. Thinking skills.

			I will have the groups discuss the following questions: What are the benefits of classification in the library?	I will use group discussion to promote teamwork, sharing ideas and experience, building leadership, making decisions, and reaching solutions	20 minutes	The book-blackboard - chalk-colored pencils- Power point-Handouts	Sharing -ideas Building leadership-Making decisions Students are active participants
			I will summarize the lesson by saying the positive impact of organization in the library.	Students listen carefully to the teacher and participate by stating the advantages of classification in the library.	5 minutes	Blackboard - chalk-colored pens	Respect - listen – Interaction- Giving public presentations

Appendix A

Lessons Plan (2)

Lesson	Subject	Goals	Teacher preparation	Learner activity	Period Time	Educational Means	Value
Second lesson	Dewey Decimal Classification	Students after the end of the lesson should be able to understand 1-Global Classification Systems. 2-Advantages of the Dewey Decimal Classification. 3-The method of Dewey Decimal Classification.	1-The students will receive instruction about working in cooperative groups and practice before the study begins. 2-Assign the students to three cooperative groups and each group will consist of five students, taking into account individual differences and needs. 3-Each student in the group chooses a role, and then I will ask each group to sit in a circle. 4-Students should maintain order, remain calm, and listen. 5-I will describe the value of collaborative learning through the development of their personality, increasing their capacity to make decisions, and helping them respect each other. 6-I will distribute cards to make them write the name of the group on it.	The student listens attentively to the teacher in preparation for collaborative learning in groups where the students choose the role that they want.	5 minutes 5 minutes	Blackboard - chalk- colored pencils- cards for the names of the groups cards	Cooperation respect- Discipline

| | | | I will preface the lesson by naming of the global classification systems, which are: Dewey Decimal Classification, Congress Classification, and Universal Decimal Classification. Then give them a simple overview of the scientist Melvil Dewey who invented the Dewey Decimal Classification in 1876.

1. I will explain the advantages of the Dewey Decimal Classification:

1-Comprehensive human knowledge.

2-Flexible and changeable.

3-Easy understanding and comprehension.

4-Using a code as global symbol.

2. I will ask some questions and ask them to discuss.

These are some of the questions:

-Names the global classification systems?

-What are the advantages of the Dewey Decimal Classification?

3-Think-Pair-Share:

I ask questions to the class and the students think about their response. Then students pair with a partner to talk over their ideas. Finally, students share their ideas with the class. | Students discuss the global classification systems and write them on cards.

Think-Pair-Share I ask questions to the class and the students think about their response. Then students pair with a partner to talk over their ideas. Finally, students share their ideas with the class. | 10 minutes | Blackboard - chalk- colored pencils- Power point

The book- blackboard - chalk- colored pencils- Power point | Discussion Sharing their ideas with other classmates- Writing on the board.

Self-reliance - accept the others views – respect- Cooperation – Interaction- Answering questions in class. Thinking skills |

4-I will explain the method of the Dewey Decimal Classification. He divided human knowledge into ten sections and each section has a number such as: General Knowledge 000 Philosophy 100 Religions 200 Social Sciences 300 Languages 400 Pure Science 500 Applied Science 600 Arts 700 Humanities 800 History and Geography 900 I will assign the groups to discuss the following questions: How did Dewey divide human knowledge? Also, I will give some of the books in various fields of knowledge to the students and ask them to arrange the book based on the DD system.	I will use group discussion to promote teamwork, sharing ideas and experience, building leadership, making decisions, and reaching solutions.	20 minutes	The book- blackboard - chalk- colored pencils- Power point- Handouts	Sharing ideas- Building leadership- Making decisions Students are active participants

			I will summarize the lesson by saying the positive impact of the Dewey Decimal Classification in the library.	Students listen carefully to the teacher and participate by stating the importance and advantages of the Dewey classification in the library.	5 minutes	Blackboard - chalk- colored pens	Respect - listen – Interaction- Giving public presentations

Appendix A

Lessons Plan (3)

Lesson	Subject	Goals	Teacher preparation	Learner activity	Period Time	Educational Means	Value
Third lesson	Catalogue in the library.	Students after the end of the lesson should be able to know: 1. The concept of indexing. 2-The importance of indexing.	1-The students will receive instruction about working in cooperative groups and practice before the study begins. 2-Assign the students to three cooperative groups and each group will consist of five students, taking into account individual differences and needs. 3-Each student in the group chooses a role, and then I will ask each group to sit in a circle. 4-Students should maintain order, remain calm, and listen. 5-I will describe the value of collaborative learning through the development of their personality, increasing their capacity to make decisions, and helping them respect each other 6-I will distributed cards for them to write the name of the group on.	The student listens attentively to the teacher in preparation for collaborative learning in groups where the students choose the role that they want.	5 minutes	Blackboard - chalk- colored pencils- cards for the names of the groups cards	Cooperation respect- Discipline

			I will preface the lesson by mentioned the definition of indexing, which is: a process of organizing information sources to access the information easily.	Students discuss the definition of indexing from some of the information sources such as an Encyclopedia.	5 minutes	Blackboard - chalk- colored pencils- Power point books	Discussion Sharing their ideas with other classmates- Writing on the board.
			1. I will explain the importance of indexing: The purpose of indexing is to organize information sources to access information easily. 2. I will ask some questions and ask them to discuss. These are some of the questions: What is the definition of Indexing? What is the purpose of the indexing in the library?	Think-Pair-Share I ask questions to the class and the students think about their response. Then students pair with a partner to talk over their ideas. Finally, students share their ideas with the class.	10 minutes	The book- blackboard - chalk- colored pencils- Power point	Self-reliance - accept the others views – respect- Cooperation – Interaction- Answering questions in class. Thinking skills.
			I will assign one model for indexing to each group and ask them to discuss.	I will use group discussion to promote teamwork, sharing ideas and experience, building leadership, making decisions, and reaching solutions	20 minutes	The book- blackboard - chalk- colored pencils- Power point- Handouts	Sharing -ideas Building leadership- Making decisions Students are active

| | | | I will summarize the whole unit and the most important topics in it briefly.

Give students work sheet: fill in the blank.

Handout about:

Unit summary.

Method of Dewey Decimal classification.

Distribution students questionnaires | Students listen carefully to the teacher by participating in saying the importance of classification and indexing in the library. | 5 minutes | Blackboard - chalk- colored pens | Respect - listen – -Interaction Giving public presentations |

Appendix B

Students' Questionnaire

Read the following statements and indicate whether you strongly agree (5), agree (4), are undecided (3), disagree (2), or strongly disagree (1) with the following statements.

	strongly agree 1	agree 2	undecided 3	disagree 4	strongly disagree 5
1-Cooperative learning facilitates greater student participation in class activities.					
2-Cooperative learning enhances class participation.					
3-Cooperative learning improves my attitude towards participation.					
4-Cooperative learning makes learning easier.					
5-Cooperative learning makes students who work together achieve more than when they to work alone.					
6-Cooperative learning make me express opinions, argue, debate, negotiate, and ask questions.					
7-Groups activities make the learning experience easier.					
8-Cooperative learning enhances good working relationships among students.					
9-Cooperative learning encourages interaction between students.					
10-Cooperative learning has helped me to raise my hand to answer and discuss.					

11-Cooperative learning has a positive impact on the students about learning.					
12-Cooperative learning is a good example for active learning strategies in the educational process.					
13-Teachers use a lot of cooperative learning strategies in the classroom.					
14-Cooperative learning contributes in development of a real collaborative skills among students.					
15-Cooperative learning strategy increases students' motivation to learn.					
16-Cooperative learning strategy motivates students to use more of the mental processes of thinking.					
17-Cooperative learning strategy promotes self-management skills for students.					
18-Cooperative learning strategy promotes self-confidence.					
19-Cooperative learning strategy increases the incidence of positive behavior and decreases negative behavior.					
20-Cooperative learning strategy helps students to solve problems,made decisions, plan and organize their work.					

Appendix C

Participation Rubric

Teacher: Ezdehar Alhabeedi

Year: 2015

Period:-------------

Class: Library and Research

Participation	Student 1	Student 2	Student 3	Student 4	Student 5	Student 6	Student 7	Student 8	Student 9	Student 10	Student 11	Student 12	Student 13	Student 14	Student 15
1-Speaking in class on topic.															
2- Taking notes.															
3- Writing on board.															
4- Engaging in class activities.															

Appendix D

Average Participation over Three Lessons

Class 1, 2, 3 Classroom Action	N	Experimental group	Mean	N	Control group	Mean	Difference between experimental group and control group
1- Speaking in class on topic.	15	34	11.33	15	6	4.66	6.67
2- Taking notes.	15	17	5.66	15	1	0.33	5.33
3-Writing on board	15	10	3.33	15	2	0.66	2.67
4- Engaging in class activities.	15	34	11.33	15	11	3.66	7.67

Appendix E

Survey Data Results for the Experimental Group

Item	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Mean	Standard Deviation
1-Cooperative learning facilitates greater student participation in class activities.							
Experimental groups	8 (53%)	7 (47%)	0	0	0	1.46	0.5164
2-Cooperative learning enhances class participation.							
Experimental groups	12 (80%)	3 (20%)	0	0	0	1.2	0.41404
3-Cooperative learning improves my attitude towards participation.							
Experimental groups	9 (60%)	5 (33%)	1 (6%)	0	0	1.46	0.63994
4-Cooperative learning makes learning easier.							
Experimental groups	7 (46%)	4 (26%)	4 (26%)	0	0	1.8	0.86189
5-Cooperative learning makes students who work together achieve more than when they to work alone.							
Experimental groups	11 (73%)	2 (13%)	1 (6%)	1 (6%)	0	1.46	0.91548
6-Cooperative learning make me express opinions, argue, debate, negotiate, and ask questions.							
Experimental groups	10 (66%)	3 (20%)	1 (6%)	1 (6%)	0	1.53	0.91548

Item	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Mean	Standard Deviation
7-Groups activities make the learning experience easier.							
Experimental groups	8 (53%)	7 (46%)	0	0	0	1.46	0.5164
8-Cooperative learning enhances good working relationships among students.							
Experimental groups	11 (37%)	3 (20%)	0	1 (6%)	0	1.4	0.82808
9-Cooperative learning encourages interaction between students.							
Experimental Groups	12 (80%)	2 (13%)	1 (6%)	0	0	1.26	0.59362
10-Cooperative learning has helped me to raise my hand to answer and discuss.							
Experimental groups	12 (80%)	1 (6%)	2 (13%)	0	0	1.33	0.72375
11-Cooperative learning has a positive impact on the students about learning.							
Experimental groups	7 (46%)	7 (46%)	1 (6%)	0	0	1.6	0.63246
12-Cooperative learning is a good example for active learning strategies in the educational process.							
Experimental groups	9 (60%)	5 (33%)	1 (6%)	0	0	1.46	0.63994
13-Teachers use a lot of cooperative learning strategies in the classroom.							
Experimental groups	3 (20%)	3 (20%)	6 (40%)	2 (13%)	1 (6%)	2.66	1.17514

Item	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Mean	Standard Deviation
14-Cooperative learning contributes in development of a real collaborative skills among students.							
Experimental groups	7 (46%)	6 (40%0	2 (13%)	0	0	1.66	0.72375
15-Cooperative learning strategy increases students' motivation to learn.							
Experimental groups	7 (46%)	6 (40%)	2 (13%)	0	0	1.66	0.72375
16-Cooperative learning strategy motivates students to use more of the mental processes of thinking.							
Experimental groups	9 (60%)	6 (40%)	0	0	0	1.4	0.50709
17-Cooperative learning strategy promotes self-management skills for students.							
Experimental groups	6 (40%)	7 (46%)	2 (13%)	0	0	1.73	0.70373
18-Cooperative learning strategy promotes self-confidence.							
Experimental groups	9 (60%)	4 (26%)	2 (13%)	0	0	1.53	0.74322
19-Cooperative learning strategy increases the incidence of positive behavior and decreases negative behavior.							
Experimental groups	5 (33%)	7 (46%)	1 (6%)	2 (13%)	0	2	1
20-Cooperative learning strategy helps students to solve problems, made decisions, plan and organize their work.							
Experimental groups	9 (60%)	6 (40%)	0	0	0	1.4	0.50709

Appendix F

Survey Data Results for the Experimental Group

Experimental Group		
Item	Mean	Standard Deviation
1-Cooperative learning facilitates greater student participation in class activities.	1.46	0.5164
2-Cooperative learning enhances class participation.	1.2	0.41404
3-Cooperative learning improves my attitude towards participation.	1.46	0.63994
4-Cooperative learning makes learning easier.	1.8	0.86189
5-Cooperative learning makes students who work together achieve more than when they to work alone.	1.46	0.91548
6-Cooperative learning make me express opinions, argue, debate, negotiate, and ask questions.	1.53	0.91548
7-Groups activities make the learning experience easier.	1.46	0.5164
8-Cooperative learning enhances good working relationships among students.	1.4	0.82808
9-Cooperative learning encourages interaction between students.	1.26	0.59362
10-Cooperative learning has helped me to raise my hand to answer and discuss.	1.33	0.72375

11-Cooperative learning has a positive impact on the students about learning.	1.6	0.63246
12-Cooperative learning is a good example for active learning strategies in the educational process.	1.46	0.63994
13-Teachers use a lot of cooperative learning strategies in the classroom.	2.66	1.17514
14-Cooperative learning contributes in development of a real collaborative skills among students.	1.66	0.72375
15-Cooperative learning strategy increases students' motivation to learn.	1.66	0.72375
16-Cooperative learning strategy motivates students to use more of the mental processes of thinking.	1.46	0.50709
17-Cooperative learning strategy promotes self-management skills for students.	1.73	0.70373
18-Cooperative learning strategy promotes self-confidence.	1.53	0.74322
19-Cooperative learning strategy increases the incidence of positive behavior and decreases negative behavior.	2	1
20-Cooperative learning strategy helps students to solve problems, made decisions, plan and organize their work.	1.4	0.50709