CHAPTER THREE

METHODOLOGY AND STUDY DESIGN

3.0. Introduction

This study is a mixed-methods study. Creswell (2007) stated that in a mixed-methods study, the researcher uses both quantitative and qualitative research. In a mixed-methods design, one form of data is not enough to answer the research questions, and so the researcher will triangulate, or collect multiple sources of data, hoping that they will converge to support a hypothesis (Creswell, 2007). The goal was to draw on the strengths of qualitative and quantitative research methods, while minimizing their weaknesses (Connelly, 2009). As Leedy and Ormrod (2005) described, the quantitative research is used to generalize to other similar situations, intending to establish, confirm, or validate relationships, and create theoretical relationships, while qualitative research seeks to explore and understand a situation more fully.

Creswell (2007) added that quantitative research allows the opportunity to collect data from a large pool of participants from which results can be generalized, whereas qualitative research provides an in-depth exploration of a few participants. Mixed-methods research has advantages over using a single method of research. It can add meaning to numbers by using a narrative, or add precision to a narrative by using numbers (Connelly, 2009). R. B. Johnson and Onwuegbuzie (2004) noted that mixed-methods research also allows researchers to answer a broader range of questions

because they are not limited to one approach. Mixed-methods studies present unique possibilities for synergy and knowledge growth that mono-method cannot match (Padgett, 2009).

Rauscher and Greenfield (2009) added that another mixed-methods strength is its ability to cross-validate results and offset the limitations of using only one methodological approach. The premise of the current study was grounded on the gap between the well-established educational practice of cooperative learning and current practices in undergraduate EFL reading comprehension classrooms. Cooperative learning is defined as a process that enables students to interact with one another to accomplish a shared or common goal.

The focus of this mixed methods study was an examination of the effectiveness of using cooperative learning strategy of Learning Together in undergraduate EFL classroom to improve students' reading comprehension. The purpose of the study was to determine whether there was a significant difference in undergraduate EFL students' reading comprehension achievement when they were taught using cooperative learning strategy of learning together instead of traditional lecturing method.

This study followed the mixed-methods approach, because it captures the best of both the quantitative and qualitative approaches (Creswell, 2003). The mixed-methods approach has been gaining popularity because it provides researchers with a better understanding of research problems than a qualitative or a quantitative method alone would provide (Molina & Cameron, 2010). The mixed-methods approach offered the researcher much better understanding of how undergraduate EFL students performed in reading comprehension classroom.

The mixed-methods approach, which this research study followed, incorporates qualitative and quantitative strategies, with at least one quantitative method used to collect data in the form of numbers and one qualitative method to collect data in the form of words (Creswell, 2003). Presented in this chapter are explanations of the overall research design and approach of the study, including the study design, data collection procedures, and data analysis procedures, including a description of the instruments and materials, their rationale, and their validity and reliability and treatment administered for this study.

3.1. Nature of the Study

This mixed-methods study investigated the effectiveness of using Learning Together instruction in improving EFL undergraduates' reading comprehension achievement. A convenience sample of eighty students from two EFL reading comprehension classrooms of two colleges, Unaizah Community College and Unaizah Science and Arts College at Qassim University took part in this research. In Qassim University, in which this study was carried out, EFL classes were departmentalized, which facilitated this convenience sampling design and made it in possible use. The same instructor, the researcher, was in charge for instructing students in the two classrooms where the study was carried out.

The experimental group classroom of the study that consisted of 40 EFL third-level students were instructed by using the Learning Together model. Pertaining to the control group classroom of the study, that involved 40 EFL third-level students had instructor-led traditional lecturing instruction and did not utilize the Learning Together model.

Semi-structured interviews were held with the experimental group after the treatment process. The obtained data was audio-tape recorded, transcribed and analyzed. The items of the Learning Together Questionnaire were adopted from the study by Ching-Ying Pan, & Hui-Yi Wu. (2013). These items were adapted and developed by the researcher and administered to the experimental group while identical pre and posttests of reading comprehension that the researcher developed were applied to both experimental group and control group, at the start and the end of the twelve-week study plan timeline for this research study. Then, the researcher examined the differences between the two sample means.

For the purpose of this study, the independent variable, Learning Together, was generally defined as a cooperative learning strategy that allows a heterogeneous group of students, assigned specific roles, to achieve a common goal (Johnson & Johnson, 2002). The dependent variable, students' reading comprehension achievement, was generally defined as the reading comprehension test results indicated on the pre- and posttests administered.

3.2. The Study Design

The main purpose of this study was to examine the effectiveness of teaching reading comprehension through Learning Together paradigm to undergraduate EFL Qassim University students. Crotty (1998) recommended researchers to think logically and clearly about the decision making process when deciding on the research approach. Crotty (1998, p. 2-3) took the point of view that any researcher, during the process of developing the research proposal, should be able to answer four simple questions. He defined these four questions as the basic four elements of any research process.

Consequently, in order to make the right decision on selecting the suitable methods to gather data for this research study, the answers for the following four questions raised by Crotty (1998) should be taken into account:

1. **What *methods* does the researcher propose to use?**

According to Crotty (1998), methods are the techniques or procedures used to gather and analyze data related to some research questions or hypothesis. Crotty added that the researchers describe the concrete techniques or procedures they plan to use. There will be certain activities they engage in so as to gather and analyze their data. These activities are the research methods. Given the goal of identifying and justifying this research study process, the researcher described these methods as specifically as possible. To this end, this study did not just talk about 'carrying out interviews' but indicated in very detailed fashion what kind of interviews were carried, what interviewing techniques were employed, and in what sort of setting the interviews were conducted. The study did not just talk about 'participant observation' but described what kind of observation took place and what degree of participation was involved. The study did not just talk about 'identifying themes in the data' but showed what was meant by themes, how the themes emerged, how they were identified, and what was done with them. (Crotty, 1998: p 6-7)

2. **What *methodology* governs the researcher's choice of methods?**

Methodology is the strategy, plan of action, process or design lying behind the choice and use of particular methods and linking the choice and use of methods to the desired outcomes (Crotty, 1998:3). Bryman, 2001 (as cited in Zughaibi, A. and Alhazmi, A. 2016) stated that there are two types of methodology that have dominated

social and educational research; qualitative and quantitative. However, they have been seen as traditional methodologies that have some limitations.

A new wave of research methodology has emerged as a third movement after the quantitative and qualitative movements. This new methodology is called mixed-methods research (Bryman, 2001). This methodology can fill the gap that other single methodologies cannot (Johnson & Onwuegbuzie, 2004). According to Creswell, Clark, Gutmann and Hanson 2003, (cited in Zughaibi, A. and Alhazmi, A. 2016) mixed-methods research is: "a collection or analysis of both quantitative and qualitative data in a single study in which the data are collected concurrently or sequentially, are giving a priority and involve integration of the data at one or more stages in the process of research" (p. 212).

Johnson and Onwuegbuzie 2004, (cited in Zughaibi, A. and Alhazmi, A. 2016) defined mixed methods research as "the class of research where the researcher mixes and combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study" (p.17). Additionally, Creswell & Plano Clark, (2007) defined the mixed methods design as a procedure for collecting, analyzing and 'mixing' or better integrating both quantitative and qualitative data at some stage of the research process within a single study for the purpose of gaining a better understanding of the research problem (Creswell & Plano Clark, 2007).

Creswell et al. (2003) recommended four criteria to be taken into consideration when going for the most appropriate mixed-methods design. These were: the implementation of data collection, priority, stage of integration and theoretical perspective. These four criteria were used as a guideline to design an appropriate mixed methods design for this study.

The first criterion, the implementation of data collection, "refers to the sequence the researcher uses to collect both quantitative and qualitative data", (Creswell et al., 2003, p. 215). Applying this criterion to this research study, data collection and analysis were carried out at four stages to offer a clearer and obvious meaningful understanding of the research problem. In other words, the researcher started by the quantitative analysis stages, followed, detailed and triangulated through the qualitative analysis stages.

The second criterion, priority, implies that the collection and analysis of quantitative data has the priority for addressing the research questions. For this study, the quantitative data were collected and analyzed at the first phase of this research while the qualitative data were collected and analyzed at the second phase of this research. The third criterion, the stage of integration, asserts the significance of the qualitative data as an asset in clarifying the results emerged from the first phase of quantitative data collection. For the fourth criterion, theoretical perspective, the social interdependence theory was the theoretical perspective which this mixed-methods research study was built upon.

3. What is the research *theoretical perspective*?

Crotty defined the theoretical perspective of his research design framework as "the philosophical stance informing the methodology and providing context for the process and grounding its logic and criteria" (Crotty, 1998:3). Accordingly, the research methodology used for carrying out this study is determined by the cognitive developmental theory, the constructivist theory and the social interdependence perspective and employed the mixed-methods design (sequential explanatory).

4. What *epistemology* informs the research perspective?

Epistemology is the theory of knowledge embedded in the theoretical perspective and thereby in the methodology. For implications of this study, it could be claimed that via cooperative grouping of students, the cognitive developmental theory, the constructivist theory and the cooperative learning theory or theory of positive social interdependence, a vital component to meeting the needs of all learners, were nurtured (Johnson & Johnson, 2002; I. C. King, 2003).

Positive social interdependence is thought to have happened when group members work together collaboratively to achieve a common goal (Johnson & Johnson, 1994, 2002). As one of the undergraduate lecturers, it seemed proper to carry out the study data collection within both Unaizah Community College and Unaizah Science and Arts College where most EFL reading comprehension teaching took place. The subsequent analysis of data collected made a tentative reconstruction from the multiple realities which existed during the process of data collection.

These four elements served the purpose of this research study; First of all, they helped to ensure the soundness of the research and made its outcomes convincing. Secondly, they satisfied the need to justify the methodologies and methods employed in this research. Setting forth the research process in terms of these four elements enabled the researcher to do this, for it constituted a penetrating analysis of the process and pointed up the theoretical assumptions that underpinned it and determined the status of its findings (Crotty, 1998).

In summary, the mixed-methods of collecting both quantitative and qualitative data of this research were selected and structured by taking into account the logical justification for it. As this study required diverse varieties of data (both quantitative and qualitative data) and also because of the significance of both kinds in answering

the three research questions, sequential explanatory design was used as the proper methodology for this research. This design of methodology is based on social interdependence theoretical perspective as a point of view and perceptions that explained reality and the way of knowing reality.

The rationale for combining both types of quantitative and qualitative data within this research study was based on the fact that neither quantitative nor qualitative methods would have been sufficient, by themselves, to capture the trends and explain them. By combining both quantitative and qualitative methods in this research study, they complemented each other and allowed for a more robust analysis, taking advantage of the strengths of each (Tashakkori & Teddlie, 1998). Arelette, M. P. (2015) stated that the fundamental basis of mixed methods research is that more can be learnt about a research topic if the benefits of both qualitative research and quantitative research are combined while simultaneously minimizing any of their shortcomings.

This was referred to as the fundamental principle of mixed methods research by Johnson and Onwuegbuzie (2004) who stated "combine the methods in a way that achieves complementary strengths and non-overlapping weaknesses" (p.18). There are strengths of using multiple-methods research. Just as in mixed methods, this methodology can capitalize on the individual assets of both types, quantitative and qualitative research, it allows the researcher to "create a multi-faceted picture of the phenomenon being studied" (Mertler & Charles, 2011, p. 322). Jacobs (2005) reminds us that "sociologists view the social world as a multi-faceted and multi-layered reality that reveals itself only in part with any single method." This study used qualitative data to help clarify the meaning of the quantitative responses to Learning Together survey questions.

Additionally, the qualitative responses helped better understand the setting in which the responses were made. Yin, (2006) as cited in Arelette, M. P., (2016), celebrated the removal of the quantitative-qualitative dichotomy and the broad variety of mixes that have emerged which truly recognized the diversity of the research methods used in education. He warned that care must be taken lest the research separate into its parts and fail to be a single study. Yin advocated that to consider any study as a single study integration, it must occur across five critical procedures: research questions, units of analysis, samples, data collection methods and analytic strategies.

Mertens (2010) (cited in Arelette, M. P. 2016), discussed mixed methods research and listed four possible design options within this category. The options were the four possibilities offered by a choice of temporal position – parallel or sequential and a choice of philosophical paradigm – pragmatic or transformative. Ling (2010) (cited in Arelette, M. P. 2016), stressed the importance of deciding on a research paradigm for a particular project first and then considering which methods to use. For this study, the mixed-methods design (sequential explanatory) was adopted.

The design combined qualitative and quantitative tools, each of which was used to examine relevant aspects. It was an experimental study in which two groups (experimental and control) were conveniently selected. This mixed-methods experimental research study was implemented in the undergraduate EFL reading comprehension course, a three-credit course, over a full semester, the first semester of the school year 2016/2017, starting the first of October, 2016 and ending the end of December, 2016 . Nine units from Reading Power, by Linda Jeffries and Beatrice S. Mikulecky, (2005), Part 2, Reading Comprehension Skills were assigned for study during the first semester.

A pretest-posttest comparison group experimental design was employed. The study took place over a period of twelve weeks (Table 3.5) from the beginning of October to the end of December, 2016. Both the experimental group and the control group were pre-tested and post-tested on reading comprehension. The pre-test was intended to establish achievement equivalence of the two groups as well as a baseline measure for growth over time. The items of the pre-tests and post-tests were evaluated by four independent faculty members

Additional data were gathered from both groups over the course of the study through classroom observation in order to provide insight into the reading comprehension instruction treatment processes. Researchers and other scholarly writers often claim that the process in educational activities is as important, or more important, than the product (Johnson & Johnson, 2009; Snodgrass & Bevevino, 2000). A brief summary of the experimental design of the research study is shown in table 3.1.

TABLE 3.1: Summary of the Experimental Design of the Research Study

Groups	Instructional Methods	Pre-Test/Procedures	Treatments	Post-Test/Procedures
Experimental group	Learning Together instruction	1.Reading Comprehension Pre-Test 2.Pre- Learning Together Survey	Receiving "Learning Together instruction"	1.Reading Comprehension Post-Test 2.Post-Learning Together Survey 3. Observation 4. Semi-structured Interviews and focus group interviews.
Control group	Traditional lecture instruction	Pre-Reading Comprehension Test	Receiving "traditional lecture instruction"	Post-Reading Comprehension Test

As shown in table 3.1, a brief summary of the experimental design of the research study is presented. There were two groups that took part in this mixed methods study, the experimental group which received the Learning Together instruction and the control group which received the traditional lecture instruction. Both of the two groups were observed and took the identical reading comprehension pre-post-tests. Only the experimental group took pre-post-Learning Together survey and participated in the semi-structured interviews and focus group interviews.

3.2.1. Variables

A single principal dependent variable – reading comprehension achievement – was selected. The variable was measured using the identical reading comprehension pre-post-tests (see Appendix C). The type of reading comprehension instructional method, Learning Together strategy, served as the independent variable for this study. The treatment involved the experimental group - undergraduate EFL students - participating in Learning Together activities that focus on improving reading comprehension achievement while the control group participating in traditional lecturing methods to improve reading comprehension achievement.

Cooperative learning strategy of Learning Together scale was a four-item scale (alpha = 0.70) and was considered a best-practice in reading comprehension education. The scale included: (a) students teach each other in addition to faculty teaching students; (b) faculty encourages study groups outside of class; (c) students participate in one or more study group(s) outside of class; and (d) students work with other students on projects outside of class. The EFL undergraduates' responses to the items of the learning together strategy questionnaire were analyzed to answer the second research question of the study.

3.2.2. Qualitative Research

To the extent of half of the research for this mixed-methods study was qualitative. According to Creswell (2007), qualitative research has several characteristics. Qualitative research explores the phenomenon from the participants' perspectives. Additionally, Leedy and Ormrod (2005) asserted that qualitative research usually answers questions regarding the complex nature of the phenomenon with a purpose of describing and understanding the phenomenon being studied through participants' points of view.

Researchers typically collect the participants' ideas when collecting data in a generic qualitative inquiry. Focusing on real events and issues, the data collection requires semi- or fully structured interviews. Interview questions tend to be pre-structured and based on the researcher's prior knowledge. Researchers can ask for more detail or explanation. In addition, a larger sample than other qualitative approaches is normally used, increasing the representativeness of the study (Kostere & Percy, 2008). A brief summary of the qualitative data phase of the study is presented in table 3.2.

TABLE 3.2: Summary of Qualitative Data

Research Question/Participants	Collected Data	Analyses
Q.3**:** How do undergraduate EFL experimental group students react to using Learning Together instruction in their EFL reading comprehension classroom? Participants: 40 students of undergraduate EFL experimental group from the third-level class using learning together strategy	1) Taped semi-structured interviews and focus group interviews. 2) Researcher's notes from observation sheets.	1) Interview transcription, coding, theme identification 2) Triangulation with themes from Learning Together strategy, observation sheets and related literature reviews 3) Triangulation with quantitative data

Table 3.2 showed a brief summary of the qualitative data phase of the study. It presented research question 3, how do undergraduate EFL experimental group students react to using Learning Together instruction in their EFL reading comprehension classroom? Additionally, it introduced the number of participants that included forty students of undergraduate EFL experimental group from the third-level class using learning together strategy.

It also pointed to the methods of collecting qualitative data, namely, taped semi-structured interviews and focus group interviews and researcher's notes from observation sheets. Finally, the table highlighted data analysis procedures that included interview transcription, coding, theme identification, triangulation with themes from Learning Together strategy, observation sheets, related literature reviews and triangulation with quantitative data.

3.2.3. Quantitative Research

The other half of a mixed-methods study was a quantitative part. While qualitative research relies on words and images, quantitative research relies on numbers and statistics (Creswell, 2007). Data collected in quantitative research come from measuring instruments (Creswell, 2007). Additionally, the researcher explains the problem. He or she explains how one variable affects another or the relationship between the two (Creswell, 2007).

As Foss and Ellefsen (2002) stated, the researcher uses explanations to form a generalization. Quantitative educational researchers, therefore, look to take the results and findings of their research from one setting and try to apply them to similar settings in different classrooms, schools, districts, states, or any other parts of the country.

TABLE 3.3: Summary of Quantitative Data

Research Question/Participants	Collected Data	Analyses
RQ1: Is there a significant relationship between using Learning Together in undergraduate EFL reading comprehension classroom and students' reading comprehension achievement as determined by students' pre-test and post-test scores? Participants: Undergraduate EFL 80 students from two third-level classes: 1) 40 using Learning Together strategy 2) 40 using traditional lecture instruction	Reading Comprehension Pre-Test and Post-Test scores	1) *t*-test
RQ2: What are undergraduate EFL experimental group students' perceptions of the effectiveness of using Learning Together instruction in improving their reading comprehension achievement? Participants: Undergraduate EFL experimental group 40 students from the third-level class using Learning Together strategy	Pre and post Learning Together Survey	1) *t*-test

Table 3.3 showed a brief summary of the quantitative data phase of the study. It presented both research question 1, is there a significant relationship between using Learning Together in undergraduate EFL reading comprehension classroom and students' reading comprehension achievement as determined by students' pre-test and post-test scores?, and research question 2, What are undergraduate EFL experimental group students' perceptions of the effectiveness of using Learning Together instruction in improving their reading comprehension achievement? In addition, it offered the number of participants that included 80 students from two third-level classes, 40 from the classroom that used learning together strategy and 40 from the classroom which used traditional lecture instruction.

Additionally, it highlighted the methods of collecting quantitative data, namely, the identical reading comprehension pre-post-test which was used for collecting data for the first research question, and the pre-post Learning Together survey that was used for collecting data for the second research question. As a final

point, the table referred to data analysis procedures, namely, t test which was used for analyzing data of both the first and the second research questions.

3.2.3.1. Inferential Statistics

Leedy and Ormrod (2005) indicated that inferential statistics "allow us to make inferences about large populations by collecting data on relatively small samples" (p. 252). Gall et al. (2003) indicated that a null hypothesis must be established first. After the formation of null hypothesis, Creswell (2007) indicated that a level of significance, or the probability level that reflects the maximum risk one is willing to take that any observed differences are due to chance, must be set. Creswell (2007) indicated that a typical level of significance is set at .01 or .05.

The next step, according to George and Mallery (2005), is using a *t* test to determine if the means of the two sample distributions differ significantly from each other. One type of *t* test is an independent-sample *t* test. This type of test compares the means of two different samples. For this study, the mean difference scores of undergraduate EFL third level students using cooperative learning were compared to the mean difference scores from undergraduate EFL third level students in a traditional lecturing classroom. Difference scores were computed by subtracting the pretest scores from the posttest scores. Thus, positive difference scores pointed to improvement, and negative difference scores pointed to regression.

3.3. Trustworthiness of Qualitative Data Collection Tools and Instruments

Different qualitative data collection tools and instruments were utilized in this study to ensure credibility, transferability, dependability, and confirmability of its data. Data credibility, which could be achieved by triangulation, provides readers with

confidence that information drawn from the participants and their interpretation are accurate (Anney, 2014). In this study, data credibility was accomplished by applying different data source and methodology triangulation. Furthermore, to achieve transferability, the study results provided new concepts to EFL reading comprehension educators at Qassim University and Saudi higher education level to make connections between elements and findings of this study and their own teaching experience and selectively apply the learning together reading instructions demonstrated in the study to improve students' learning.

The prospect to transfer new findings from a research study to the readers helps connect elements of a study and their own experience (Colorado State University, 2017). Still, dependability confirms the assurance of the findings, interpretation, and recommendations were all supported by the study data while confirmability implies that study results could be validated by outside researchers (Anney, 2014). Additionally, data source, methodology, and triangulation can be utilized to establish dependability and confirmability.

3.3.1. Triangulation of Data

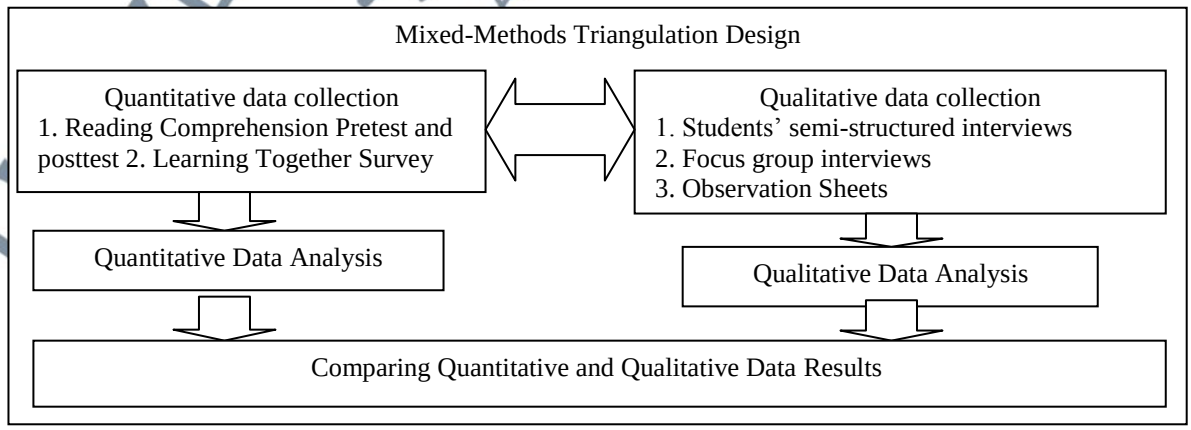
Triangulation is a process involving the collection of data from multiple sources hoping that they will converge to support a hypothesis (Creswell, 2007). Leedy and Ormrod (2005) stated that in mixed-methods designs, both quantitative and qualitative data are collected to answer a single question. Halcomb and Andrew (2005) noted that triangulation has the potential to yield more comprehensive, insightful data. Foss and Ellefsen (2002) thought it can produce richer and more authentic data, while Bradley (1995) claimed that it enhances validity.

Jick (1979) recommended that triangulation offers researchers several important opportunities, including increased confidence in results, the potential to create new methods, and the opportunity to provide an enriched explanation of the research problem. Main sources of data for this study included reading comprehension pre-test and post-test, cooperative learning strategy of learning together survey and students' semi-structured interviews and focus group interviews.

As mentioned earlier, (See Chapter 3 Section 3.2), the researcher utilized a mixed-methods study design. As Creswell (2007) noted, "The quantitative data will address whether the intervention (independent variable-using Learning Together strategy) has an impact on the outcomes (dependent variable- reading comprehension achievement), whereas the qualitative data will assess how the participants reacted to the intervention (using Learning Together strategy)" (p. 559).

The semi-structured interviews and focus group interviews were utilized to recognize how students explained the experience of using Learning Together strategy and its effectiveness on their reading comprehension achievement. The scores from the reading comprehension pre-test and post-test were used to back up the qualitative data, indicating whether the students' reading comprehension achievement has been improved after utilizing Learning Together strategy. This process is explained in figure 3.1.

FIGURE 3.1: Mixed-Methods Triangulation Design



3.4. The Setting of the Study

This study affords comprehensive data about using cooperative learning strategy of Learning Together to improve undergraduate EFL students' reading comprehension achievement and their experiences and perceptions about cooperative learning. The site of the study was a public university located in the middle district of Saudi Arabia. This site was selected due to its nearness and accessibility for the researcher. According to its official website, Qassim University is defined as a public university in Al-Qassim Province in the middle of Saudi Arabia. It was established in 2004 by merging two Qassim branches of Imam Mohammad Ibn Saud Islamic University and King Saud University.

The main campus is located in Mlida City, near Saudi Aramco (Qassim Branch) and Qassim Regional Airport in the middle of Al-Qassim Province. Sub-campuses are located in Unaizah City and Buraidah City. Since the establishment of the university, it has experienced a remarkable growth in enrollment and a significant expansion of faculty and its administrative staff. The number of male and female students registered at university during 2010-11 approached 50,000 and number of faculty members and staff reached well over 4,000. At present the university encompasses 28 colleges both for male and female students. Among the male colleges located in Unaizah City are Unaizah Community College and Unaizah Science and Arts College where this study was carried out.

3.5. Sampling Selection Steps

3.5.1. The Population of the Study

Participants for the research were selected by means of purposive sampling. Lodico et al. (2010) suggested that when selecting participants and sites that best

assist in understanding the research questions, purposive sampling is the appropriate methodology. Purposive sampling is applicable when a researcher's aspiration is to intentionally select participants and sites that address the needs of a proposed study (Gheondea-Eladi, 2014; Setia, 2016). Merriam (2009) and Farrelly (2013) stated that when carrying out basic qualitative research, there should an adequate number of participants to partake in the study (p. 80). It is important to have an adequate sample group and sample to the point of redundancy (Merriam, 2009).

Thus, choosing the appropriate number of participants is always an important step when designing a study. A participant sample that is too small may not yield adequate data to fully understand the topic. A large sample size may cause too great a degree of complexity in the data set making analysis and interpretation of the research unfeasible. Both circumstances are ethically improper and should be avoided by the researcher (Block & Erskine, 2012).

The population of the study consisted of two classrooms of ENG 235, Reading and Vocabulary-3, an intermediate course in English reading comprehension, offered by the Department of English Language and Translation at Qassim University. The course is required of all EFL students at the University. It is a continuation of ENG 131, Reading and Vocabulary-1, a beginner course in English reading comprehension and ENG 132, Reading and Vocabulary-2, a pre-intermediate course in English reading comprehension and comes before ENG 236, Advanced Reading, the last in the sequence of reading and vocabulary courses. The ENG 235, reading and vocabulary-3 course aims to further students' reading comprehension skills of previewing, skimming, scanning, recognizing topics and main ideas, understanding sentences and paragraphs, and making inferences to levels of fluency, accuracy, and comprehension that will ensure high quality university EFL reading comprehension education.

The course was structured around fifteen weeks of teaching with three contact hours per week. It included extensive reading, vocabulary building, reading comprehension skills and reading faster. However, for the purposes of this study, investigation focused on students' reading comprehension skills which included Unit 1 Previewing, Unit 2 Scanning, Unit 3 Making Inferences, Unit 4 Focusing on the Topic, Unit 5 Understanding Paragraphs, Unit 6 Identifying the Patterns of Organization, Unit 7 Thinking in English and Prediction, Unit 8 Skimming and unit 9 Summarizing. Students were required to read and discuss several topics. The main reason for choosing this course for this research was that the pedagogy of teaching reading was implemented using conventional methods such as lecturing which concentrated on reading the text, translating new vocabulary to the students' mother tongue and answering the questions.

Built on conversations with some faculty members in the Department of English Language and Translation at Qassim University and on my observation as a lecturer who is in charge of teaching this course, students were unable to experience the actual reading comprehension process and improve their reading comprehension skills. Henceforward, the need to employ an alternative pedagogical model like Learning Together strategy was eminent.

The participants in the study included eighty students enrolled in two ENG 235 classrooms (forty in the control group and forty in the experimental group). Their ages ranged from 20 to 22 years old. The sample population came from two undergraduate EFL third-level classes in Unaizah Community College and Unaizah Science and Arts College. The first reading comprehension classroom, which used Learning Together strategy, has forty male students, while the second reading comprehension classroom, which did not use cooperative learning strategies, has forty male students. The sample

for this study also included the lecturer, the researcher, who used cooperative learning strategy of Learning Together during reading comprehension instruction for the classroom which had the experimental group, and used the traditional lecturing method with the classroom which had the control group.

3.5.2. The Sample of the Study

Both Patton (2002) and Merriam (2009) noted that researchers should select an appropriate sample size that enables them to reasonably represent varying perspectives on the phenomenon being studied. When choosing a sample size, the researcher should anticipate that the number of participants selected will produce satisfactory information relevant to the topic (Yin, 2010)

Students were informed about their rights as participants and that their responses to the tests, questionnaires and interviews were confidential. The researcher informed the students that every document was to be kept locked away with the key available only to the researcher. Students were made aware that they could terminate their participation in the study at any point if they so desired.

The sample comprised eighty undergraduate EFL level-three students from Unaizah Community College and Unaizah Science and Arts College, who were enrolled in English Reading course in the first semester of 2016/2017. All of the students have been studying English as a Foreign Language for more than eight years during primary school, intermediate school, secondary school and university. The researcher taught two English reading classes for this study. With the researcher as the instructor; one class was assigned as the experimental group (n = 40), and the other class was assigned as the control group (n = 40).

The experimental group was exposed to cooperative learning strategy of Learning Together instruction, whereas the control group received traditional lecture instruction. Both groups had the same learning materials, schedule, tests, and instructor; the sole difference was the instructional method. Identical reading comprehension pre-and post-test were administered for both groups to measure the entry level of each group before the experiment. The Learning Together Survey was administered twice, before and after the treatment for the experimental group to determine the variations of students' perceptions about cooperative learning strategy of Learning Together. In fact, this study employed a sampling method that was a convenience sample. Ultimately, subjects were chosen by their instructor (the researcher).

First, all EFL third level students were asked if they were interested in participating in the study. Of those who agreed to participate, eighty students were assigned numbers 1-80. Students with odd numbers were placed in one group, and students with even numbers were placed in the other group. Those eighty students (*n* =80) were selected from the third level of English language department of the second year of both Unaizah Community College and Unaizah Science and Arts College in Qassim University in Saudi Arabia.

The study used two methods of language teaching strategies in which forty students (*n*= 40) studied together in eight teams of five members each according to the dynamics of the Learning Together cooperative learning strategy. The other forty (n= 40) studied the same material according to procedures in the traditional lecturing classroom (whole-class instruction). There was one English instructor, the researcher, from the same university and the same college who got involved in teaching those two groups.

TABLE 3.4: The Population of the Quantitative Phase

The Experimental Group (the first semester, 2016/17)	The Control Group (the first semester, 2016/17)	Total
Group 1 n = 40	Group 2 n = 40	N = 80

As shown, in table 3.4, the sample of the quantitative part of the study included eighty participants, forty from Unaizah Community College and forty from Unaizah Science and Arts College. One class was assigned as the experimental group (n = 40), and the other class was assigned as the control group (n = 40). The experimental group was exposed to cooperative learning strategy of Learning Together instruction, whereas the control group received traditional lecture instruction.

According to Fink (2006), convenience samples are used in situations where people are willing to participate and available when needed. The sample chosen can help to provide information that can answer the research questions and hypotheses (Creswell, 2007). Additionally, Gall et al. (2003) stated that the reader of a study using convenience sampling must infer the population to which the results may be generalized. To help, the researcher can provide a rich description of the sample.

In the case of this study, the researcher has been teaching in the two colleges as well as the undergraduate EFL third level students who participated in this study. The qualitative data, semi-structured interviews and focus group interviews involved the undergraduate EFL third level experimental group students from whom the quantitative data and reading comprehension achievement scores were taken. Students for the semi-structured interviews and focus group interviews were elected using systematic sampling.

In systematic sampling, a group of individuals is collected by taking every *n*th person (number found after division) from a list containing the defined population (Gall et al., 2003). Systematic sampling does not require a list of numbered individuals or a numbers table (Creswell, 2007).

For this study, informed consent forms (See Appendix A for English Version and Appendix B for Arabic Version) were collected for each student who was interested in participating, and put in order of when they were submitted. First, the population of consent forms received was divided by the number needed for the sample. The number needed for the sample was twelve for the semi-structured interviews and ten for the focus group interviews. It is worth mentioning that only 9 students attended the focus group interviews, five in the first focus group interview and four in the second focus group interview.

3.5.3. The Characteristics of the Sample of the Study

Because the Saudi education system separates the sexes, the study sample was composed of two male groups which were selected from the population of the undergraduate EFL students of Qassim University where the researcher has worked for more than nine years. All of the students participating in the study resided in the same district, Qassim Province in the middle of Saudi Arabia, and studied EFL in the third-level at the two colleges, Unaizah Community College and Unaizah Science and Arts College. Their ages ranged from 20 to 22 years old. They came from a variety of social and regional backgrounds. The students interviewed were all from an EFL reading comprehension classroom implementing cooperative learning strategy of Learning Together.

3.5.4. The Size of the Sample of the Study

Israel (2009), Denscombe (2007), and Fogelman (2002) have all indicated that sample sizes of between 30 and 250 participants are acceptable when conducting small scale research. The sample size consisted of eighty undergraduate EFL male students who took the pre-test and post-test. They were enrolled in the third level of English language department, from the second year (forty in the experimental group who participated in a classroom that implemented cooperative learning strategy of Learning Together during reading comprehension instruction and forty in the control group that participated in a classroom that used traditional lecturing and did not utilize cooperative learning strategy of Learning Together during reading comprehension instruction). Twelve students, chosen using a systematic sampling procedure, from a classroom that used cooperative learning strategy of Learning Together were individually interviewed and other nine students participated in the focus group interviews.

3.5.5. Protection of Participants

Leedy and Ormrod (2005) stated that it is essential to safeguard the identity of the individuals taking part in the research. With this in mind, the participants were given fictitious names. Before commencing the collection of data, all requirements for the research study approval were met, which included the site permission given by the deans of the two colleges, Unaizah Community College and Unaizah Sciences and Arts College. Data collection did not commence until after all the necessary permissions and approvals were received. Additionally, prior to beginning the pre and posttests, pre and post questionnaires and interviews, it was requested that the participants sign an informed consent agreement, which explained the purpose of the

study, the data collection process, conditions for confidentiality, how the outcomes of the data were to be used, and the participants' rights to terminate their involvement in the study without any ramifications. Personal data acquired from the participants were kept private. In order to ensure participant privacy, participants' information was locked in a cabinet, and the only key that could provide access was kept by the researcher.

3.6. Research Procedures

A week before the treatment, the reading comprehension pre-test was administered as a measure of homogeneousness. After scoring the reading comprehension pre-test, students were ranked according to their scores and then experimental group and control group were formed. The students who scored highest on the pre-test were identified as high achievers and the students who scored lowest were considered as low-achievers. The remaining students were identified as average-achievers. The students were assigned to the experimental group and control group using the following formula: one high-achiever was grouped with one low-achiever and three average-achievers. The rationale for this type of grouping was that it would provide opportunities for learners to peer-tutor and help each other to accomplish the learning goals.

In Learning Together, students were assigned to eight-member learning teams. The lecturer presented a lesson, and then students worked within their teams to make sure that all team members had mastered the lesson. Finally, students took individual quizzes on the material in which they could not help one another. Students' quiz scores were compared to their own past averages, and points based on the degree to which students met or exceeded their own earlier performance were awarded. These

points were then summed to form team scores, and teams that met the assigned criteria were rewarded. Then, they sat for weekly quizzes, and their quiz performance was added to their final performance.

For every session, students were expected to read and discuss a reading comprehension passage assignment. In the experimental group, the participants were aimed to interact with groupmates, share ideas with each other, and help each other to accomplish the common goal. They read and scanned each paragraph for the new words, and to detect or guess the meaning from context. If students needed help, they were asked to look up the words in their bilingual dictionaries.

During the treatment sessions, while students were working together in their groups, the lecturer was walking around to ensure that everyone was doing well. He provided assistance when it was required while the students were working and learning together. At the end of the experimental period, the post-test was administered to the two groups. To answer each of the research questions, a t-test procedure was used.

3.6.1. Treatment

The treatment activities, instruments and materials developed by the researcher were based on existing cooperative learning theory and methods. They abided by the cognitive elaboration theory on cooperative learning and included individual accountability and positive interdependence in their structures. Prior to the treatment, electronic copies of the instruments were emailed to four faculty members with over ten years of teaching experience, PhD degrees holders, and who are familiar with and used cooperative learning strategies extensively in their EFL classrooms. The faculty members were asked to review them for their conformity to cooperative learning

methods and theories. They confirmed that the instruments constituted cooperative learning. Following their suggestions, slight modifications were made to the instruments. The study spanned a total of twelve weeks with an additional day for discussing the upcoming study with students, for setting up standards for student interaction with the experimental group.

Table 3.5 outlines the activities that occurred over the course of the twelve-week study for both the experimental and control groups who took part in pre-treatment activities before commencing the study. This included a short-term discussion of the study and why the students' participation was needed. The Learning Together strategy activities were developed by the researcher from existing cooperative learning strategies and theories found in the literature and which met the criteria used by Igel (2010). In that meta-analysis of cooperative learning literature, Igel (2010) maintained that to be considered cooperative learning, strategies must include (1) positive interdependence and (2) individual accountability. There were a total of nine units of instruction, taught to both experimental and control groups over the span of one full semester period.

TABLE 3.5: Summary of the Units and activities of the treatment sessions

No. of weeks	List of topics covered during treatment sessions	Days/ Dates	Experimental Group	Control Group
Week One	Introduction to the study and Reading Comprehension Pre Test and distributing the Learning Together Questionnaire	Sunday/ 2/10/2016	Taking the Reading Comprehension Pre Test	Taking the Reading Comprehension Pre Test
		Wednesday/ 5/10/2016	Completing the Learning Together Questionnaire	Not Applicable

Week Two	Unit 1 Previewing and Making Predictions strategy	Sunday/ 9/10/2016	Asking each group of students to focus on previewing and making predictions and read Unit 1, (Questions and Answers Concerning the Previewing), what previewing is, why preview, how they can preview, Previewing a passage. Students will check for peer understanding of material. Students will work together to ensure understanding of every group member.	The lecturer taught the whole class by explaining previewing point by point and interacted with students by asking questions and leading a discussion.
		Wednesday/ 12/10/2016	Students were asked to work together to read, discuss, answer the textbook exercises to determine which sections were most challenging and complete these exercises for homework. Students will check for peer understanding of material. Students will work together to ensure understanding of every group member.	Practicing the textbook exercises individually and finishing them for homework
Week Three	Unit 2 Scanning for details	Sunday/ 16/10/2016	Guiding each group of students to focus on scanning and refer to Unit 2, and work together to review what scanning is, when they can scan, how they can scan, scanning for common words and phrases, scanning for key words in passages, scanning for information, scanning a table of contents, scanning an index, scanning a list, scanning classified ads, scanning a newspaper ad, scanning newspapers stories. Students will check for	The lecturer taught the whole class by explaining scanning for details and interacted with students by asking questions and leading a discussion.

			peer understanding of material. Students will work together to ensure understanding of every group member.	
		Wednesday/ 19/10/2016	Students were asked to work together to read, discuss, answer the textbook exercises to determine which sections are most challenging and complete these exercises for homework. Students will check for peer understanding of material. Students will work together to ensure understanding of every group member.	Practicing the textbook exercises individually and finishing them for homework
Week Four	Unit 3 Making Inferences (reading between the lines) and locating references	Sunday/ 23/10/2016	Guiding each group of students to focus on Making Inferences and refer to Unit 3 and work together to preview questions and answers concerning making inferences like how they can make an inference, when they can make inferences, making inferences from conversations, making inferences from stories. Students will check for peer understanding of material. Students will work together to ensure understanding of every group member.	The lecturer taught the whole class by explaining making inferences and locating references bit by bit and interacted with students by asking questions and leading a discussion

		Wednesday/ 26/10/2016	Students were asked to work together to read, discuss, answer the textbook exercises to determine which sections were most challenging and complete these exercises for homework. Students will check for peer understanding of material. Students will work together to ensure understanding of every group member.	Practicing the textbook exercises individually and finishing them for homework
Week Five	Unit 4 Learning to look for the Topic (Identifying the Thesis Statement)	Sunday/ 30/10/2016	Directing each group of students to discuss Focusing on the Topic and to work together to refer to Unit 4 and preview questions and answers pertaining focusing on the topic like what a topic is, finding the topic, kinds of topics, thinking of the topic, identifying the thesis statement. Students will check for peer understanding of material. Students will work together to ensure understanding of every group member.	The lecturer taught the whole class by explaining focusing on the topic (identifying thesis statement) and interacted with students by asking questions and leading a discussion.
		Wednesday/ 2/11/2016	Students were asked to work together to read, discuss, answer the textbook exercises to determine which sections were most challenging and complete these exercises for homework. Students will check for peer understanding of material. Students will work together to ensure understanding of every group member.	Practicing the textbook exercises individually and finishing them for homework

Week Six	Unit 5 Understanding Paragraphs (Main Ideas)	Sunday/ 6/11/2016	Helping each group of students to work together to review understanding paragraphs through referring to unit 5 and previewing questions and answers like what a paragraph is, topics of paragraphs, choosing the best topic, thinking of the topic, writing the topic of a paragraph, main ideas of paragraphs, choosing the best main idea, writing the main idea sentence, finding supporting facts and ideas, connecting ideas in paragraphs, pronouns as connectors, transition words and phrases as connectors and using contexts for vocabulary. Students will check for peer understanding of material. Students will work together to ensure understanding of every group member.	The lecturer taught the whole class by explaining understanding paragraphs and interacted with students by asking questions and leading a discussion.
		Wednesday/ 9/11/2016	Students were asked to work together to read, discuss, answer the textbook exercises to determine which sections were most challenging and complete these exercises for homework. Students will check for peer understanding of material. Students will work together to ensure understanding of every group member.	Practicing the textbook exercises individually and finishing them for homework

Week Seven	Unit 6 Identifying patterns of organization and Identifying Exceptions)	Sunday/ 13/11/2016	Guiding each group of students to focus on identifying the patterns of organization and refer to Unit 6 and work together to preview questions and answers concerning identifying the patterns of organization like what a pattern is, signal words, common patterns of organization in paragraphs (the listing patterns, the sequence (time order) pattern, the comparison/ contrast pattern, the cause /effect pattern, problem /solution pattern, extended definition pattern), recognizing the pattern, missing sentences, identifying exceptions. Students will check for peer understanding of material. Students will work together to ensure understanding of every group member.	The lecturer taught the whole class by explaining Identifying patterns of organization and Identifying Exceptions and interacted with students by asking questions and leading a discussion.
		Wednesday/ 16/11/2016	Students were asked to work together to read, discuss, answer the textbook exercises to determine which sections were most challenging and complete these exercises for homework. Students will check for peer understanding of material. Students will work together to ensure understanding of every group member.	Practicing the textbook exercises individually and finishing them for homework
Week Eight	Unit 7 Guessing unknown words)	Sunday/ 20/11/2016	Guiding each group of students to focus on guessing unknown words and refer to Unit 7 and work together to preview using pronouns	The lecturer taught the whole class by explaining Thinking in English (predicting and guessing new

			and synonyms and guess the meaning of unknown words. Students will check for peer understanding of material. Students will work together to ensure understanding of every group member.	words) and interacted with students by asking questions and leading a discussion.
		Wednesday/ 23/11/2016	Students were asked to work together to read, discuss, answer the textbook exercises to determine which sections are most challenging and complete these exercises for homework. Students will check for peer understanding of material. Students will work together to ensure understanding of every group member.	Practicing the textbook exercises individually and finishing them for homework
Week Nine	Unit 8 Skimming	Sunday/ 27/11/2016	Guiding each group of students to focus on skimming and refer to Unit 8 and work together to preview what skimming is, when do they skim, how do they skim, guidelines for effective skimming, skimming for point of view, skimming for pattern of organization, skimming for ideas. Skimming for research. Students will check for peer understanding of material. Students will work together to ensure understanding of every group member.	The lecturer taught the whole class by explaining skimming step by step and interacted with students by asking questions and leading a discussion.
		Wednesday/ 30/11/2016	Students were asked to work together to read, discuss, answer the textbook exercises to determine which sections were most challenging and	Practicing the textbook exercises individually and finishing them for homework.

			complete these exercises for homework. Students will check for peer understanding of material. Students will work together to ensure understanding of every group member.	
Week Ten	Unit 9 Summarizing	Sunday/ 4/12/2016	Guiding each group of students to focus on what summarizing is, summary words, summarizing a sentence, summarizing a paragraph, summarizing short passages, summarizing longer passages. Students will check for peer understanding of material. Students will work together to ensure understanding of every group member.	The lecturer taught the whole class by explaining skimming step by step and interacted with students by asking questions and leading a discussion.
		Wednesday/ 7/12/ 2016	Students were asked to work together to read, discuss, answer the textbook exercises to determine which sections are most challenging and complete these exercises for homework. Students will check for peer understanding of material. Students will work together to ensure understanding of every group member.	Practicing the textbook exercises individually and finishing them for homework.
Week Eleven	Reading Comprehension Post-test and Learning Together Questionnaire	Sunday/ 11/12/2016	Taking the Reading Comprehension Post-test	Taking the Reading Comprehension Post-test
		Wednesday/ 14/12/2016	Completing the Learning Together Questionnaire	Not Applicable

Week Twelve	Semi-structured Interviews	Sunday/ 18/12/2016	Participation in Semi-structured Interviews and first focus group interview.	Not Applicable
		Wednesday/ 21/12/2016	Participation in Semi-structured Interviews and second focus group interview.	Not Applicable

Source: Topics are adopted from: Mikulcky & Jeffries (2005).

3.6.1.1. Learning Together Instruction

The role of the lecturer was as essential as the task structure. Implementing Learning Together strategy required the lecturer to redefine his role in the classroom. Instead of being the disseminator of knowledge, the lecturer had the ability of transition between facilitator, resource, guide, and mediator continuously throughout the activity. The experimental group received Learning Together instruction throughout the twelve weeks. The experimental group students were divided into eight heterogeneous groups. Each group consisted of five students based on reading comprehension pretest scores at the beginning of the experiment.

Before the beginning of the instruction, the lecturer gave detailed information about learning objectives, the instruction process and rules for working in a cooperative group, group member roles, and assessment strategies (Doymuş and Şimşek, 2007). Students in the Learning Together groups were stimulated to choose who would be the group leader. Later, the heads of the groups were defined by the group members. The subject of related states of matter was presented to the group members by the group heads.

Each group studied their subject out of and in reading comprehension classrooms. All Learning Together activities were fulfilled by students under the guidance of the lecturer. During students' discussion in their small groups, the lecturer visited all the groups and asked guiding questions to lead students in appropriate directions. All the Learning Together groups prepared their own reports after the activities were accomplished. Each group was given half an hour to present their work in the classroom and half an hour for discussion with the class. During this discussion, the group answered questions from the class. All groups completed their topics in twelve weeks (Doymuş et al. 2009).

In the first two weeks of the experiment, the lecturer spent about 20 minutes each week guiding students to practice Learning Together instruction through explanation and coaching. In the Learning Together classroom, students were asked to preview the unit text and prepare individual questions before class, and then bring the questions to class for Learning Together. During class collaboration, group members clarified word meanings and confusing texts, and then engaged in a discussion to determine the answers to their questions.

The lecturer served as the discussion facilitator and as a source for information and guidance. During group discussions, the lecturer helped students resolve misunderstandings, offered feedback, and facilitated discussions. Following a group discussion, students were encouraged to ask questions on the text they had read, and the lecturer offered a brief lecture to clarify any confusing text and resolve their questions. The lecturer was always present and actively monitoring, however, he was not the central figure in the activities. Finally, students were tested individually with a unit reading comprehension quiz developed by the lecturer.

3.6.1.1.1. Implementation of Learning Together Strategy during the Study Sessions

For two sessions per week, students in the experimental group were divided into eight heterogeneous groups that consisted of five members in which they applied the principles of Learning Together strategy. In the first session, the researcher gave them handouts that had one reading comprehension skill explained on them, such as previewing, making inferences, scanning, skimming, understanding paragraphs and focusing on the topic. The task of each group was to read about the skill, summarize it, and write a report about it. All five group members drew a representation of the skill on a big piece of poster board. Then, the whole class shared their skill reports and drawings in the form of group presentations. They inductively discovered these skills and then personalized them.

Later, in the second session, the researcher introduced a sample of exercises to the students to be answered during the session to help them share their information and give examples from their daily lives. During this session students were given time to work together to read, discuss and answer the textbook exercises to determine which sections were most challenging. Finally, students were asked to complete some additional exercises as homework. The purpose was to give them enough time to work together outside classroom, share and process information, and make connections with each other. These exercises were corrected to reward the best group. During The sessions of Learning Together instruction, the researcher facilitated the learning activities and used his observation sheets simultaneously to achieve his purpose, which was to help students practice good learning together habits. As a facilitator for students' learning, the researcher played an active role in the learning together setting.

While the students were working together in small groups to complete their activities, the researcher continuously monitored the students' activities, ensuring that all group members were vigorously engaged. During the learning together process, the researcher also served as a mediator, giving students assignments with clear goals and helping them to achieve those goals during the learning process. Furthermore, the researcher answered queries and guided students towards task completion. Finally, the researcher also monitored each student's development as well as the process of the group.

3.6.1.1.2. The Learning Together Instruction Twelve Week Study Plan

During the first week, students were required to take the Reading Comprehension Pre-test in the first session and complete the Learning Together Strategy Questionnaire in the second session.

During the first session of the second week, the researcher introduced the reading comprehension course and discussed the goals and expectations of the course. Then he introduced the general idea and main principles of Learning Together as an instructional strategy and encouraged students to work in groups to focus on previewing as a reading comprehension skill and read together Unit 1 which included what previewing is, why preview, how they can preview, previewing a passage. During the second session of the second week students were asked to work together on group presentations and finish Unit 1 exercises (See Appendix L).

During the first session of the third week, the researcher guided each group of students to focus on scanning as a reading comprehension skill and refer to Unit 2, and work together to review what scanning is, when they can scan, how they can scan, scanning for common words and phrases, scanning for key words in passages,

scanning for information. During the second session of the third week students were asked to work together on group presentations and finish Unit 2 exercises (See Appendix M).

During the first session of the fourth week students were guided to focus on Making Inferences and refer to Unit 3 and work together to preview questions and answers concerning making inferences like how they can make an inference, when they can make inferences, making inferences from conversations, making inferences from stories. During the second session of the fourth week students were asked to work together on group presentations and finish Unit 3 exercises (See Appendix N).

In the first session of the fifth week students were directed to discuss Focusing on the Topic and to work together to refer to Unit 4 and preview questions and answers pertaining focusing on the topic like what a topic is, finding the topic, kinds of topics, thinking of the topic and identifying the thesis statement. During the second session of the fifth week students were asked to work together on group presentations and finish Unit 4 exercises (See Appendix O).

For the first session of the sixth week students were urged to work together to review understanding paragraphs through referring to unit 5 and previewing questions and answers like what a paragraph is, topics of paragraphs. writing the topic of a paragraph, main ideas in paragraphs, writing the main idea of a paragraph, main idea sentences, finding supporting facts and ideas, connecting ideas in paragraphs, pronouns as connectors, transition words and phrases as connectors and using contexts for vocabulary. During the second session of the sixth week students were asked to work together on group presentations and finish Unit 5 exercises (See Appendix P).

In the first session of the seventh week students were directed to focus on identifying the patterns of organization and refer to Unit 6 and work together to

preview questions and answers concerning identifying the patterns of organization like what a pattern is, signal words, common patterns of organization in paragraphs (the listing patterns, the sequence (time order) pattern, the comparison/contrast pattern, the cause /effect pattern, problem/solution pattern, extended definition pattern), recognizing the pattern, missing sentences, identifying exceptions. During the second session of the seventh week students were asked to work together on group presentations and finish Unit 6 exercises (See Appendix Q).

In the first session of the eighth week students were guided to focus on thinking in English and refer to Unit 7 and work together to preview thinking about and predicting what will come next and guess the meaning of new words. During the second session of the eighth week students were asked to work together on group presentations and finish Unit 7 exercises (See Appendix R).

In the first session of the ninth week students were asked to focus on skimming and refer to Unit 8 and work together to preview Skimming for point of view, skimming for pattern of organization, skimming for ideas. During the second session of the ninth week students were asked to work together on group presentations and finish Unit 8 exercises (See Appendix S).

During the first session of the tenth week students were asked to focus on Summarizing and refer to Unit 9 and work together to preview what summarizing is, summary words, summarizing a sentence, summarizing a paragraph, summarizing short passages, summarizing longer passages. During the second session of the tenth week students were asked to work together on group presentations and finish Unit 9 exercises (See Appendix T).

During the first session of the eleventh week students took the Reading Comprehension Post-test. During the second sessions of the eleventh week students

were asked to complete the Learning Together Questionnaire. Finally, students participated in both the semi-structured individual interviews and focus group interviews during the first and second sessions of the twelfth week. Detailed descriptions can be seen in table 3.5.

3.6.1.2. Traditional Lecture Instruction

As for the control group, the lecturer used the same material and covered the same topics but in a conventional manner and in a non-learning together setting. For example, the lecturer brainstormed some ideas on the whiteboard while students presented ideas as individuals. The lecturer presented the reading comprehension skills to students by giving them a handout. Then, the lecturer explained the reading comprehension passage and the skill. Students received the information and practiced on their own.

The implementation of this traditional method lasted for one session. Students from the control group also were given time to do the exercises during the second session. One-to-one dialogue took place between the lecturer and students. Finally, students were asked to finish some additional exercises as homework. The control group received the traditional lecture instruction, or lecturer-centered instruction. In traditional lecture classroom, students were asked to preview the text for each unit before class, and the lecturer taught the whole class by explaining the text paragraph by paragraph, focusing on English syntax and semantics. The lecturer interacted with students by asking questions and leading a discussion. After finishing each unit, students were tested individually on the taught material. They were also asked to complete individually the textbook exercises for homework.

3.6.1.3. Instructional Delivery

The lecturer's weekly instructional procedures were as follows:

- Reading comprehension passages were given to students in the experimental and control groups at the beginning of the lecture to review a previous topic or to introduce new material.
- Introducing the reading comprehension lecture: Both groups were introduced to the same reading comprehension passages. However, the control group was introduced to the reading comprehension passages using the traditional lecturing method. The experimental group was introduced to the reading comprehension passages using the Learning Together instruction.
- The students in the experimental group were actively engaged in helping each other.

3.7. Instrumentation

This study was a mixed-methods study. To find the answers to the research questions, five research instruments, identical reading comprehension pretest and posttest, the researcher's journal entries and field notes written down through classroom observation, learning together survey questionnaires, semi-structured interviews and focus group interviews, were used for this study.

Research question 1, how learning together strategy intervention can affect undergraduate EFL students' reading comprehension test scores, was answered using the results of the pre- and post- reading comprehension tests. The statistical results were used to provide more substantive information regarding the effectiveness of learning together strategy instruction for Saudi undergraduate EFL students.

For research question 2, the pre post learning together strategy questionnaires were used to show the undergraduate EFL statistical change of students' perceptions before and after the learning together strategy usage.

Finally, for research question 3, semi-structured individual interviews with twelve students and focus group interviews with nine students from the experimental group showed undergraduate EFL students' thoughts, opinions, experiences and perceptions about using the learning together strategy instruction in EFL reading comprehension classroom in a Saudi EFL context.

Before grouping the participants into the experimental group and the control group, they took the identical reading comprehension pretest and after grouping the participants into the experimental group and control group, the experimental group students completed the pre learning together survey questionnaires, see table 3.6.

TABLE 3.6: Instrumentation for the study

Research Questions	Instruments
RQ1: Is there a significant relationship between using Learning Together in undergraduate EFL reading comprehension classroom and students' reading comprehension achievement as determined by students' pre-test and post-test scores?	Identical Pre and Post Reading Comprehension Test
RQ2: What are undergraduate EFL experimental group students' perceptions of the effectiveness of using Learning Together instruction in improving their reading comprehension achievement?	Pre and Post-Learning Together Strategy Questionnaire
RQ3: How do undergraduate EFL experimental group students react to using Learning Together instruction in their EFL reading comprehension classroom?	The semi-structured interviews, focus group interviews and the researcher's observation sheets, journal entries and field notes

3.7.1. Identical Reading Comprehension Pretest and Posttest

The first instrument used to determine the participants' reading comprehension achievement was the identical reading comprehension pretest and posttest (See Appendix C). The participants' reading comprehension pretest scores compared to posttest scores were used to determine how the learning together strategy affected their reading comprehension achievement. For both groups, participants were given 90 minutes to finish each of the entire reading comprehension pretest and posttest.

The identical reading comprehension pretest and posttest served as instruments. In order to establish that both the experimental group and control group were of equal reading comprehension achievement ability, the pre-test was used. The post-test was used to provide objective, statistical data to determine student learning during the treatment. All questions for the tests were multiple-choice questions. The identical tests were similar in difficulty and matched the typical undergraduate EFL reading comprehension tests that students normally took. Students marked their answers directly on the test.

The effectiveness of using cooperative learning strategy of learning together in undergraduate EFL reading comprehension classes was determined by comparing the learning outcomes of the two groups before and after the treatment. For reading comprehension achievement, all participants were given a pretest before the treatment. This test was based on a reading comprehension selection and included 24 items that measured participants' literal comprehension of ideas directly stated in the passage and included multiple–choice questions. English reading achievement post-test assessed whether different instructional methods indicated varied performance in English reading comprehension.

At the end of the treatment, all participants were given a posttest that measured the learning outcomes and competencies targeted during the treatment. This test was based on a reading selection and included 24 multiple–choice questions. The purpose of the reading comprehension post-test was to assess student changes in reading comprehension and to be able to correlate these changes to using the cooperative learning strategy of Learning Together in undergraduate EFL reading comprehension instruction.

To this end, an identical version of the tests was developed for the pre-test and for the post-test. Seven types of questions were used on both of the reading comprehension tests (See Appendix C for a complete version of the tests). These questions measured readers' abilities to find out:

1. factual information that is clearly stated in the reading passage
2. factual information that is not directly stated in the reading passage
3. the main idea of a paragraph embedded within the passage
4. the main idea of the entire reading passage
5. a paraphrase of a sentence or paragraph of the passage
6. the meanings of certain vocabulary terms that are meant to be understood from contextual clues in the passage
7. underlying unstated information that must be inferred from contextual clues in the passage.

One question per question type, except for the vocabulary question, was included on each passage. For the vocabulary question type, two questions were provided, therefore totaling 8 questions per passage. Each of the tests consisted of three reading passages, totaling 24 questions per test.

3.7.1.1. The Validity and Reliability of Reading Comprehension Pretest and Posttest

As Popham (2009) stated, "When test-taking firms need content related validity . . . they take great care to assemble large groups of teachers who render a series of carefully structured judgments about a test's individual items as well as its overall content representativeness" (p.32).To ensure the content validity and reliability of the tests, other two expert colleagues were invited to evaluate and validate them (See Appendix U).They expressed their satisfactions with the pretest and posttest question items and confirmed that they are suitable for the EFL undergraduates' levels and that there were no need for making any changes or modifications. To ensure good inter-scorer reliability, all tests were independently rated by other two faculty members.

3.7.2 The Researcher's Journal Entries and Field Notes

Chamot (1995) recommends keeping a journal in order not only to record ideas, but also to retrace the research path for research observations and insightful ideas. Additionally, keeping a research journal was a valuable means to report the researcher's own activities and decisions as well as to summarize all actions, thoughts, and feelings at the end of each day.

In addition, field notes were also useful records from which important actions and impressions in the class were recalled. All through the procedure, notes on the researcher's observations of students' reactions, responses, progress, changes, and improvements, as well as his thoughts and feelings during the class were taken, as the instruction was not video- or audio- recorded.

3.7.2.1. Experimental Group Classroom Observations

The purpose of the observation was to note whether students demonstrated the five elements of cooperative learning groups as indicated by Johnson & Johnson (1999). These five fundamental elements include positive interdependence, individual and group accountability, interpersonal and small group skills, face-to-face promotive interaction and group processing. The observation allowed the researcher to record students' behaviors and compared the level of students class participation to behaviors demonstrated at the beginning of the semester. Beginning semester student behaviors were recorded as field notes through researcher's journal entries. The classroom observation took place during the twelve weeks of the study. The observation was performed to note whether any changes were needed in the structure of cooperative learning activities.

Observing the students in the reading comprehension classroom provided indispensable data for understanding how they engaged, and interacted in the reading comprehension classroom. The observation took place twice a week. All classroom observations were written down. The researcher took notes about what he identified to be fulfilled during observations. The researcher paid more attention to the learning together strategy elements incorporated in instruction, and got acquainted with the types of activities and work done inside the reading comprehension classroom. Throughout the remaining observations, notes regarding students' behavior, the learning together instruction atmosphere and the kinds of reading material used in the class were taken. The classroom observation instrument was a mixed methods data collection tool; qualitative and quantitative data were captured through the researcher's field notes as well as documented frequencies of the five cooperative learning elements.

Through observations, student frequency of the five elements of cooperative learning was recorded. The instrument had been adapted from The Cooperative Learning Observation Protocol created by Kern, Moore, and Akillioglu (2007). The observation was analyzed using quantitative and qualitative methods. Classroom observations began in early October 2016. The researcher spent approximately sixty minutes observing in each of the participants' reading comprehension classroom groups once per week for the duration of the twelve-week study, for a total of twelve hours of classroom observation per study participant group students. Extensive field notes were written down during classroom observations. The cooperative learning observation guide (CLOG) is provided (See Appendix D).

3.7.3. Learning Together Strategy Questionnaire

At the beginning and at the end of this experiment, the experimental group students were asked to complete the Cooperative Learning Scale (See Appendix E) to reveal their views on the use of Cooperative Learning Strategy of Learning Together which consisted of thirteen 5-point Likert-type items and four factors: (1) active learning, (2) group discussion, (3) views of cooperative learning, (4) interaction. To ensure the content validity and reliability of the items of the questionnaire, other two expert colleagues were invited to evaluate and validate them (See Appendix V).

3.7.3.1. The Validity and Reliability of the Questionnaire

A pilot study was intended to test reliability and validity of the questionnaire before its use in the research study. However, if the questionnaire used was well established in a previous research context and the context was not so different, then the study can be done away with a pilot study since the findings would not be

significantly affected. Most items of the questionnaire used in this research study have been used in a related research field. These items were adopted and adapted by the researcher from the study by Ching-Ying Pan, & Hui-Yi Wu. (2013).

In addition, the data that the questionnaire collected were highly reliable and valid. The researcher has used Ching-Ying Pan, & Hui-Yi Wu. (2013) previous study measurement, the questionnaire, which was already valid and reliable so the researcher felt that there was no need to do the pilot study again. The assumption is that the more studies the research study is based on the better the justification of its results. This research study was guided by both well-grounded theory and high quality research studies in its field. This study was built on prior research on cooperative learning strategies to improve students' academic and interpersonal skills (Johnson & Johnson, 1989; Slavin, 1991).

The current analyses of the data collected by this research study questionnaire revealed that they had high internal consistency and construct validity. The analysis showed that the initial factors were the same with the ones extracted in this research study survey. The researcher considered them as valid and reliable enough to be used in this research study main survey without being cautious about the generalizability of research results. Additionally, the selection of the study scales could be justified based on theory and relative literature that revealed a trend to fit many cultures and populations with similar results. That way, this research study was built upon these previous studies and presented new approaches and research to achieve new knowledge. Taking other studies surveys' results, analyzing and interpreting them could justify the use of these surveys instruments due to adequate reliability and validity coefficients shown in these studies.

The findings of this research study are in tune with earlier research. Numerous studies have reported positive gains of student achievement due to the implementation of cooperative learning in the classroom. Previous researchers who have studied the effects of cooperative learning in education suggest that it promotes student academic achievement in the classroom. Slavin (2010) stated, "Cooperative learning has established itself as a practical alternative to traditional teaching, and has proven its effectiveness in hundreds of studies throughout the world" (p.10). This study confirms what many researchers have suggested all along that cooperative techniques are sound pedagogical instruction that can influence students' learning (Hodges, 2013).

As a final point, Groves and his colleagues noted:

> "questions that are easily understood and that produce few other cognitive problems for the respondents introduce less measurement error than questions that are hard to understand or that are difficult to answer for some other reason" (Groves et al. 2009, p. 259).

Accordingly, in order to avoid any difficulty in understanding the questionnaire question items, any ambiguity or any other cognitive problems, the questionnaire question items were translated by the researcher into the students' native language, Arabic. (See Appendix F).

3.7.3.1.1. The Questionnaire Evaluation by Expert Reviewers

Generally, expert review is a relatively quick and inexpensive method for evaluating draft questionnaire questions (Presser and Blair 1994). Not surprisingly, expert reviews have become a common practice in questionnaire development (Forsyth and Lessler 1991). As Willis et al. (1999) pointed out, expert reviews can be conducted individually or in group sessions. In addition, the experts can rely

exclusively on their own judgments, making informal assessments that typically yield open-ended comments about the survey items to be evaluated, or they can be guided by formal appraisal systems that provide a detailed set of potential problem codes. Expert reviews are especially likely to identify problems related to data analysis and question comprehension (Presser and Blair 1994; Rothgeb et al. 2001).

In addition to turning up lots of potential problems, expert reviews were found less expensive than other methods of evaluating draft survey questions (Presser and Blair 1994). Expert reviewers have been used as a pretesting method (Presser and Blair 1994; Willis et al. 1999), to identify problematic linguistic structures in survey questions (Holbrook et al. 2007). The number of expert reviewers tends to be small, ranging from two or three expert methodologists (Presser and Blair 1994; Theis et al. 2002; Jansen and Hak 2005; Holbrook et al. 2007) to over 20 reviewers (Willis et al. 1999).

For this research study, two experienced faculty members of Qassim University who are PhD holders and have long experience in using cooperative learning strategies in teaching different EFL university levels and courses were asked to assess all questionnaire thirteen items.

3.7.3.1.2. Brief description of the Expert Reviewers

The two expert reviewers who evaluated the questionnaire items were employed at the same university, Qassim University, and at the same academic department, English language and translation department, but they were EFL staff at two different colleges; one was employed at Community College and the other was employed at Science and Arts College. The two expert reviewers were chosen because they had similar background experience of PhD courses at research methodology,

English language teaching methods and Education. The two expert reviewers hold PhD degrees and had several years of prior work experience in teaching English as a foreign language. Both of them have long experience in using cooperative learning strategies in teaching different EFL university levels and courses. Thus, the two expert reviewers were selected with their similar specialization and working experience to minimize variation between both of them.

The two experts were given more specific information about the title, background and purpose of the study. They were kindly informed about the study methodology and instrumentations that involved learning together questionnaire. The two expert reviewers commented on the questionnaire items independently. To maintain independence of the two expert reviewers, they were asked to comment on the questionnaire items individually; the identity of each reviewer was not disclosed to the other aside from the researcher.

3.7.3.1.3. The Expert Reviewers' Comments on the Questionnaire Items

For each questionnaire item, the two expert reviewers were asked to decide whether each item of the survey had serious problems (and, if it did, to describe the problems) and also to rate each item on a five-point scale. The scale values ranged from "Very good item" (1), "Good item" (2), "Acceptable item" (3), "Bad item" (4), to "Very bad item" (5).

The two expert reviewers first rated the questionnaire item related to the first section of the questionnaire (1. Active learning), "learning together inspires me to more active learning." and there was an agreement between both of them as they rated it as "Very good item" (1). The two expert reviewers then rated the questionnaire items related to the second section of the questionnaire (2.Group discussion).

The first item of this section, “group discussion helps me grasp more key ideas from the text.” was rated as “Very good item” by both expert reviewers. There was disagreement between the two expert reviewers pertaining to the second item of this section, “group discussion reminds me of neglected key points in the text.” One of them rated it as “Good item” while the other rated it as “Acceptable item”. The same disagreement and the same rates applied to the third item of this section, “group discussion helps me have more comprehensive understanding of the text.”

There was an agreement between the two expert reviewers with regard to the fourth item of this section, “group discussion helps me determine the parts I don’t really understand.” Both of them rated it as “Acceptable item”. They also agreed on rating the fifth item of the second section, “Group discussion helps me improve my exam scores.” with “Good item”.

For those questionnaire items related to the third section of the survey, (3. Views of Learning together), the two expert reviewers agreed on rating the first item of this section, “learning together helps me realize others’ study methods that benefit me.” as “Very good item”. The same rating and the same agreement of both experts applied to the second item of the third section, “learning together requires much more time to study.”

With respect to the third item of the third section, “learning together brings more pleasure to study.” had the same agreement of both experts and was rated as “Very good item”. However, there was disagreement between the two experts regarding the fourth item of the third section. “I prefer learning together.” as one of them rated it as “Good item”, while the other rated it as “Acceptable item”.

The two experts agreed on rating the all three items of the fourth and last section of the questionnaire, (4.Interactions). They rated the first item, “learning

together increases my classroom participation." and the second item, "learning together helps me share and help others which confirms my abilities." as "Very good item" while they rated the third and last item, "during learning together, I feel satisfied with the interactions with my partners." as "Acceptable item".

The expert reviewers were also asked to provide their written comments with more detailed information about any individual types of problems or any wording problems in survey items they thought were likely to occur when applying the survey to the EFL undergraduates. Both of them agreed that all the questionnaire items did not have any wording problems or any individual types of problems. The two expert reviewers examined the same questionnaire items using a form developed by the researcher. For the two experts' rating and comments on the questionnaire items (See Appendix X).

In conclusion, it is clear from the expert reviewers' comments on the questionnaire items, the problem of not doing a pilot study could be worked out by getting evaluation of the items of this research study questionnaire from expert people (PhD holders) (See Appendix V).

They agreed with the relevance of the items used with this research study questionnaire and therefore this could be considered as evidence that the items of the questionnaire were valid. They have decided, through their evaluation, whether these items matching with the study objectives or not. The questionnaire was made of 5-Likert scale starting from (strongly agree about the item to strongly disagree). Then the percentage of the respondents about the items was seen and this of course gave justification for not doing the pilot study. Based on the students' answers of the items, it could be decided whether the items were reliable and valid.

3.7.4 .The Semi-Structured Interviews

The interview is a conversation between two people in which one person seeks information from another person without revealing his or her opinion or beliefs (Leedy & Ormrod, 2005). The interview is an essential technique in qualitative research. Merriam (2009) stated that qualitative research aims for understanding "how people make sense of their experience" (p.37), and the interview is indispensable to get different types of data, such as recall of former events that are not possible to replicate. Personal thoughts, feelings, experiences and internal events can be captured from participants by interviews. In a mixed-methods study, Creswell (2008) pointed out that you (as a researcher) can acquire qualitative data, such as interviews, "when you want to follow up a quantitative study with a qualitative one to obtain more detailed, specific information than can be gained from the results of statistical tests (p.552)." Also, data from additional qualitative methods can provide a more in-depth understanding of "how experimental intervention actually worked" (Creswell, 2008).

There are many types of interviews. One of these types is a semi-structured interview which is designed to get participants talking about their experiences and understandings. It allows the researcher to come to the interview with guiding questions, as well as follow the leads of the informants and probe into areas that arise during interviews. The goal is to understand the participants' points of view (Hatch, 2002). Lodico et al. (2010) described semi-structured interviews as those in which the interviewer uses the same set of questions for all the interviews. Thus, the same questions were posed to all the participants. In this study, semi-structured interviews were used as an important method to develop a deeper understanding of learning together by Saudi EFL undergraduates and how learning together strategy instruction improved their reading comprehension.

All through the interviews, the researcher had the flexibility to ask the questions in any order and even change the wording of the questions. Throughout the interviews, the researcher fostered a welcoming, relaxed environment. However, to ensure that that the research would result in trustworthy and valid findings, the researcher strove to maintain the integrity of the research process. In addition, the researcher communicated profound gratitude to the participants, provided transcripts, and promised complete confidentiality of participant data.

The use of interviews was valuable to the researcher developing an understanding of the phenomenon as it was not possible to observe the perceptions and lived experiences directly (Creswell, 2009; Yin, 2010). An interview is a method by which the investigator and the participant share a dialogue committed to answering the questions associated with the study (Creswell, 2013; Demir, Rowe, Heller, Goldin-Beadow, & Levine, 2015; Merriam, 2009). Whiting (2008) stated that using semi-structured interviews is the approach most frequently connected with qualitative research. The significant feature of semi-structured interviews is the flexibility the researcher has during the interview process.

Lodico et al. (2010) declared that unlike structured interviews, where there is a pre-arranged progression of questions to be asked in the identical manner of all interviewees, the interviewer typically organizes the semi-structured interview. The interview consisted of topics, themes, or areas to be dealt with throughout the interview, rather than a series of draft questions (Merriam, 2009; Whiting, 2008). Each participant was interviewed for approximately 15 minutes. A tape recorder was used to record the interviews to ensure the accuracy of the data collection process. The responses were then transcribed and coded; these coded items were utilized to complete the data analysis.

3.7.5 .The Focus Group Interviews

Another type of interview is a focus group interview. Hatch (2002) stated that "focus groups are sets of individuals with similar characteristics or having shared experiences who sit down with a moderator to discuss a topic" (p. 24). On average, focus groups consist of 6–12 participants drawn from a population of interest. Having this range of participants allows everyone the chance to contribute, yet yields a diverse range of opinions (Freeman, 2006).

Focus group interviews do not rely solely on an interviewer asking questions in a group setting. They also rely on the participants interacting with each other in the group to collect their data (Hatch, 2002). Participants are encouraged to question others' responses and extract clarification (Freeman, 2006). Vaughn, Schumm, and Sinagub (as cited in Hatch, 2002) noted that the goal is to create conversations that allow participants to explore a topic in depth. Focus group interviews have advantages. One advantage is that the researcher can collect a lot of data on one topic in a shorter period of time than from observations and individual interviews (Hatch, 2002). Several participants discuss the topic at once. Also, members of the group can elicit data from each other due to their interaction (Hatch, 2002).

Kitzinger (1995) added to this point by noting that the "group processes can help explore and clarify views and attitudes efficiently, and encourages participation from those who feel that they have little to say" (p. 299). Participants can add details to what others have said. A third advantage is that some participants may be willing to express ideas that do not fit with the thoughts of the interviewer (Hatch, 2002). As a final point, Hatch (2002) stated that results can provide rich data to triangulate the research.

3.7.5.1. Student Interviews

Of the possible 40 students using learning together strategy in their EFL reading comprehension classroom, 12 of them readily volunteered to take part in the students' interviews. Merriam (2009) indicated that the researcher should place emphasis on the test group to the point of termination or saturation. Boddy (2016) suggested that an adequate sample size would consist of between eight to twelve participants and that a sample of that size would provide enough data from the participants' narratives for the purposes of the research goals.

Twelve students were interviewed at the end of the first semester of the academic year 2016/2017 to capture students' responses to prompts regarding their experiences in the course. Students were selected on the basis of high and low academic grades with the selection of four high achieving students, four average students and four lower achieving students. The purpose of selecting students at different levels was to determine whether different themes would arise depending on achievement level. Interviews were analyzed using qualitative measures.

3.7.5.2. The Questions of the Interviews and their Trustworthiness.

The researcher developed an interview with questions about learning together that were suitable for data collection as they permitted the participants to discuss their perceptions and lived experiences when implementing the strategy in their EFL reading comprehension classrooms. Moustakas (2004) emphasized the significance of formulating questions that allow the researcher to assess the participants' meaning in relation to the topic during the interview procedure. Creswell (2009) added that the replies to the interview questions should give support for the original research questions.

A panel of experts was utilized to review the interview questions to ensure that the interview questions did, in fact, have meaning and could reasonably generate answers the research questions. The guided interview questions were designed to answer the third posited research question regarding the lived experience of the participant students using learning together in their EFL reading comprehension classroom. The researcher determined that the instrument was effective based on the applicable literature on qualitative design instruments relating to the implementation of learning together in EFL reading comprehension classroom.

The questions were constructed specifically to address the third research question that guided the qualitative phase of the study. The interview protocol allowed participants to respond to questions regarding their knowledge, beliefs, opinions, attitudes, and ideas about learning together in their EFL reading comprehension classroom. Creswell (2009) stated that soliciting a panel of experts to appraise the interview questions would permit the researcher to evaluate the effectiveness of the questions. This process was called field testing the interview guide. The field test process allowed the researcher to discover qualities or essential attributes of the research questions. Attention was also drawn to the potential for multiple meanings of the participant experiences to emerge. The researcher was aware that these meanings could be informally or historically organized (Creswell, 2009; Yin, 2010).

The undergraduate EFL student semi-structured interviews and focus group interviews questions were designed by the researcher. The questions were reviewed by a panel of three experts of Qassim University EFL faculty members. The three experts on the panel all have PhDs and research experience. The three experts of the panel reviewed each set of questions to decide whether the questions would collect the data required to answer the questions of the research study, and for any biased wording that

may drive the interviewees in a specific direction. The experts examined the proposed interview questions to ensure that questions were likely to produce clear answers. The experts also checked for any errors in the questions, checked that the questions maintained adequate clarity, and verified that the questions would assist the researcher in obtaining accurate information. As a result of the expert panel review process, adjustments were made to the interview questions based on their recommendations (See Appendix W).

Interviews questions (See Appendix G) about experience working in learning together groups, impact on reading comprehension learning and help seeking strategies were discussed with participants. The researcher provided a safe environment for students. Participating in a safe environment allowed students to be comfortable speaking honestly regarding their opinions of the course. Each interview was audio recorded and transcribed. Interviews were listened to three times in order to ensure accuracy of statements. Transcriptions were read for each interview to compile specific statements that were related to each other. Each statement was coded with a word or phrase related to a category. Once statements were in specific categories, all statements were read again and collapsing of categories occurred for those statements that could be combined into a single category. The categories became themes and warranted assertions were determined by supporting statements. Student interview questions are provided in Appendix G.

3.7.5.3. Credibility of the Interviews

The credibility of the interviews refers to how trustworthy the findings are, and credibility is established when the participants in the study can identify the findings as their own experiences (Farrelly, 2013; Merriam, 2009; Reale, 2014). Credibility was

ensured by having all participants interviewed utilizing the same protocol and also by ensuring that their responses were accurately documented. Participants were asked to reflect on their responses in order to minimize personal bias on the part of the researcher. Debriefing sessions were conducted with participants, taking into consideration any additional information that emerged following the interview process. Finally, interviewees had the opportunity to review transcripts of their interviews. According to Hatch (2002), member checking allows the interviewed participants to confirm transcriptions of the interview.

All interviews were tape-recorded and transcribed. To help the researcher gain a deeper understanding of the topic being investigated, data was collected from multiple sources. Two kinds of interviews, semi-structured interviews and focus group interviews were conducted and the data checked for inconsistencies (Lodico, Spaulding, & Voegtle, 2006). The information from the sources was then compared in an effort to aid the development of research conclusions. The researcher complied with all pertinent guidelines and regulations while adhering to all applicable ethical standards that cover research procedures (Merriam, 2009).

3.7.5.4. Dependability of the Qualitative Phase of the Study

The dependability criterion refers to the constancy of the processes and procedures used to gather and understand the data in the study (Lodico et al., 2006). Merriam (2009) explicated that the consistency of the findings should be apparent, and the researcher can explain the expectations underlying the inquiry through triangulation of the data. In the study, the guarantee of dependability was supported by creating consistency within the interview protocols. The interview protocol was used to accumulate data in a fixed and systematic manner utilizing a predetermined set of

interview questions. Identical interview protocols were used for all participants in the study. Following the interview process, the data was organized into categories and themes, and all interviews, transcripts, interpretations, findings, and recommendations were prepared for electronic retrieval purposes. The records were made available to the interviewees and accessible as evidence as well as for validation purposes.

3.8. 1. The Procedures of Data Collection

According to Darbyshire, MacDougall, & Schiller, (2005, p. 417),

> *"…using multiple methods in researching children's* (and adult learners') *experiences is a valuable approach that does not merely duplicate data but also offers complementary insights and understandings that may be difficult to access through reliance on a single method of data collection".*

As a method, multiple-methods research can focus on collecting and analyzing both quantitative and qualitative data, or can utilize a combination of different quantitative methods (Jacobs, 2005). In this study, both quantitative and qualitative data were collected and analyzed. The qualitative data provided a supportive role in a study based primarily on the quantitative data. The quantitative data from the pre-and post-tests, along with the learning together strategy questionnaires collected before and after the intervention, were the primary data sets utilized. The qualitative data was obtained from the student semi-structured interviews, students' focus group interviews and observation sheets. The qualitative data, collected after the intervention, served as the supportive role in the analysis. At the beginning of the first semester of the school year 2016/2017, eighty English language male students from the third level of English language department of the second year of both Unaizah Community College and Unaizah Science and Arts College of Qassim University were selected, that was a convenience sample.

Selected students were divided into two groups, the control group and the experimental group. The same lecturer, the researcher, taught both classes. The study occurred from early October to the end of December 2016. During these twelve school weeks, each group was gathered twice a week and the session period was ninety minutes long. Eight units were covered at that time. Both groups covered the same subject matter and used the same text. Both groups received the same reading course for the same amount of time. Before the beginning of the treatment both groups were given the pretest. The researcher conducted the pretest measures before the cooperative learning begins.

During the twelve school weeks, the non-experimental (control) group of students was taught as usual with the traditional lecturing instruction. Students received the information as listeners without the employment of cooperative learning in this class. Therefore, they were taught using traditional methods of lecturing, open discussions (whole-class discussion) and each student worked individually. The students in the experimental group were taught by involving them in cooperative learning strategy of Learning Together. The cycle of each of these classes were as follows: a general discussion about the topic of the new unit; individual reading silently; teacher reading aloud to the class; then students reading aloud; and students participating in cooperative learning activities in which they identified new words, summarized a passage, wrote a suggestion about the passage, and answered textbook exercises. At the end of the twelve academic weeks, the posttest was administered to both groups and both the semi-structured interviews and students' focus group interviews were administered to the experimental group to compare their achievements, perceptions about cooperative learning strategy of learning together.

After permissions were approved by both the dean of Unaizah Community College and Unaizah Science and Arts College, the process of data collection began. Students were addressed during their EFL reading comprehension classes, and were given letters of request to take part in the study and an informed consent form (See Appendix A for English Version and Appendix B for Arabic Version). In-depth interviews with undergraduate EFL students were one of the principal data collection methods. The semi-structured interviews and the students' focus group interviews were recorded in on audiotapes in order to transcribe them onto a computer for analysis (Creswell, 2007). Creswell recommended that the researcher can interview "5–25 participants, all whom have had direct experience with the phenomenon being studied" (as cited in Leedy & Ormrod, 2005, p. 139).

First, semi-structured interviews and focus group interviews were executed in the Community College Auditorium. Semi-structured interviews and focus group interviews with students decided how cooperative learning was used in their EFL reading comprehension classroom, if it aided them learn better, and how they knew they were doing better because cooperative learning was utilized. In addition to the qualitative data, including semi-structured interviews and focus group interviews, quantitative data were also collected. The quantitative data collected, student reading comprehension achievement, was in the form of student pre-tests and post-tests.

3.8.2. Stages of Data Collection

The implementation of data collection criterion "refers to the sequence the researcher uses to collect both quantitative and qualitative data" (Creswell et al., 2003, p. 215). For this study, data collection and analysis procedures were conducted in four separate stages to provide a better understanding of the research problem. This

required the researcher to begin by a quantitative analysis explained through a qualitative follow up. The four stages of data collection were outlined as follows:

3.8.2.1. The First Stage of Data Collection

Once Universiti Sains Islam Malaysia's seeking permission to do data collection and survey official letters were presented to both Uniazah Community College (See Appendix H) and Unaizah Science and Arts College (See Appendix J) and the permissions of both the dean of Unaizah Community College (See Appendix I) and the dean of Unaizah Science and Arts College (See Appendix K) had been obtained, the process of data collection first stage started. Prior to collecting data, the researcher attended the classes, talked to the students and invited them to participate in the research study. Students were addressed during their EFL reading comprehension classes, and were given letters of request to take part in the study and an informed consent form with an information sheet, describing the aims, procedures of the research study and the researcher (See Appendix A for English Version and Appendix B for Arabic Version).

All students who expressed their interest in taking part in the research study had to return their signed consent forms to the researcher. Consequently, consent forms had always been obtained before the data collection process. Following the undergraduate EFL students' approvals to take part in the research study had been granted, the researcher started recruiting student participants. Undergraduate EFL students who agreed to take part in the study by signing the consent form, were given some hints about the research study timetable including the time and classes where the study would occur.

Data collection procedures for the first stage were set over two sessions to avoid participants being confused and overloaded with many odd tasks and losing their desire and interest in participating in the research study. During the first session of the first week of data collection process, all participant students' EFL reading comprehension skills proficiency levels were assessed by means of the ninety minutes Reading Comprehension Pre-Test which was taken by students. Students completed the Reading Comprehension Pre-Test consists of three reading comprehension passages with twenty-four questions in total. Following each reading comprehension passage, the participants were required to answer eight multiple-choice questions written on the same examination sheet. These three reading comprehension passages were the same as in the Reading Comprehension Post-Test. After completing the Reading Comprehension Pre-Test, the researcher reminded the experimental group participant students of the time and place for taking and completing the Learning Together Questionnaire the following session.

During the second session of the first week of data collection process, the researcher gained data about experimental group students' perceptions concerning utilizing the Learning Together strategy in the EFL reading comprehension classroom. Experimental group students were given thirty minutes to complete the Learning Together Questionnaire. This instrument mainly collected data about experimental group student participants' perceptions of using Learning Together strategy in EFL reading comprehension instruction. The data obtained were valuable for assisting the researcher in creating, designing and developing some of both the experimental group individual interviews and student focus group interviews questions in the second stage of the research study.

Once these two forms of data had been collected, participant students were informed of their right to have their reading comprehension pre-test results personally and confidentially known upon request and they were reminded of the time and place the results would be available. Any quires or questions about the second stage of data collection were also answered.

3.8.2.2. The Second Stage of Data Collection

The second stage of the data collection started from the second week and continued to the tenth week of the study. Collection of data in the second stage lasted for more than two months. This stage consisted mainly of reading comprehension classroom observations. These observations included five fundamental elements of cooperative learning, namely, positive interdependence, individual and group accountability, interpersonal and small group skills, face-to-face promotive interaction and group processing. The observation guide had been adapted from The Cooperative Learning Observation Protocol created by Kern, Moore, and Akillioglu (2007).

Classroom observations began in early October 2016. The researcher spent approximately sixty minutes observing in each of the participants' reading comprehension classroom groups once per week for the duration of ten weeks, for a total of ten hours of classroom observation per study participant group students. Extensive field notes were written down during classroom observations. The cooperative learning observation guide (CLOG) is provided in Appendix D.

Observing the students in the reading comprehension classroom provided indispensable data for understanding how they engaged, and interacted in the reading comprehension classroom. The researcher paid more attention to the Learning Together strategy elements incorporated in instruction, and get acquainted with the

types of activities and work done inside the reading comprehension classroom. Throughout the remaining observations, notes regarding students' behavior, the Learning Together instruction atmosphere and the kinds of reading material used in the class were taken. Through observations, students' frequencies of the five elements of cooperative learning were recorded. Any quires or questions about the third stage of data collection were also answered.

3.8.2.3. The Third Stage of Data Collection

The third stage of data collection lasted for a week. It took place during the eleventh week of the study and consisted of two sessions. During the first session, the ninety minutes Reading Comprehension Post-Test was taken by both the experimental and control group students. The Reading Comprehension Post-Test consisted of three reading comprehension passages with twenty-four questions in total.

Following each reading comprehension passage, the participants were required to answer eight multiple-choice questions written on the same examination sheet. These three reading comprehension passages were the same as in the Reading Comprehension Pre-Test. After completing the Reading Comprehension Post-Test, the experimental group participant students were reminded of the time and place for taking and completing the Learning Together Questionnaire the following session.

During the second session of the eleventh week of data collection, the researcher gained data about experimental group students' perceptions concerning utilizing the Learning Together strategy in the EFL reading comprehension classroom. Experimental group students were given thirty minutes to complete the Learning Together Questionnaire. This instrument primarily collected data about experimental

group student participants' points of view of using Learning Together strategy in EFL reading comprehension instruction.

Once these two forms of data have been collected, participant students were informed of their right to have their reading comprehension post-test results personally and confidentially known upon request and they were reminded of the time and place the results would be available. Any quires or questions about the fourth stage of data collection were also answered.

3.8.2.4. The Fourth Stage of Data Collection

The fourth stage consisted of both individual interviews and students focus group interviews with experimental group participant students. Collection of data in the fourth stage lasted for a week. It took place during the twelfth week of the data collection procedures of the study. After analyzing data collected in the second session of Learning Together Questionnaire during the first stage, the results were used to inform the structure of the fourth stage of data collection. The rationale for this approach was that the quantitative data and subsequent analysis provide a general understanding of the research problem (Ivankova, Creswell, & Stick, 2006).

To make sure that experimental group participant students in the fourth stage represented the population of all experimental group participant students, 'criterion sampling' was utilized. Twelve experimental group participant students who had participated in all the Learning Together activities in the study were selected based on their scores on both pre and post reading comprehension tests; high proficiency, medium proficiency and low proficiency. Dörnyei (2007) stated that criterion sampling offers "valuable insights into an issue if … we intentionally look at the whole range of possible responses" (p. 128).

Once the experimental group twelve selected students expressed their agreement to be interviewed, they were informed of the time and place of both the individual and student focus group interviews. The interviews were carried out in Unaizah Community College Auditorium in order to offer the interviewees a comfortable, friendly and relaxed atmosphere as possible.

Prior to both individual interviews and student focus group interviews, the participant students were informed that only their answers of the questions of the content section would be recorded and they were asserted that their real names, their personal data or any of their identity information would not be included in the recording and that data gained from their interviews would be stored confidentially and securely and would be only available and accessible only to the researcher. The above mentioned four stages of data collection are summarized and outlined in table 3.7.

TABLE 3.7: Stages of Data Collection

Stages	Timetable	Sessions	Procedures
The First Stage	The First Week of the Study	The First Session	Reading Comprehension Pre-Test
		The Second Session	Learning Together Questionnaire
The Second Stage	From the Second to the Tenth Week of the Study	The First Session	Classroom Observation
		The Second Session	Classroom Observation
The Third Stage	The Eleventh Week of the Study	The First Session	Reading Comprehension Post-Test
		The Second Session	Learning Together Questionnaire
The Fourth Stage	The Twelfth Week of the Study	The First Session	Individual Interviews
		The Second Session	Focus Group Interviews

3.9. The Procedures of Data Analysis

In order to present a clear in-depth analytical understanding of what constituted quantitative and qualitative data collected for this research study, the different data analysis procedures applied in this research study could be outlined in the following two stages.

3.9.1 The First Stage: The Procedures of Quantitative Data Analysis

The first stage, the procedures of quantitative data analysis, was conducted to describe the distribution of variables involved in this study. This helped in the subsequent referential analysis to answer the first and second questions of the study. For data collected in the first and third stages of data collection procedures of this research study, instruments, reading comprehension pre-test, post-test and Learning Together pre and post questionnaires, were analyzed. First, data from the reading comprehension pre-test post-test and Learning Together pre and post questionnaires were directly input into a computer file in order to make data entry easier and to be used later with SPSS to perform the statistical analysis.

For the reading comprehension pre-test and post-test, scoring was based on answers of undergraduate EFL students. The undergraduate students' responses for both the reading comprehension pre-test and post-test were checked by the researcher and re-checked by another faculty member for errors. Pallant 2011 (as cited in Zughaibi, A. and Alhazmi, A. 2016) asserted that this is an essential step to do before the analysis as errors in data might distort the analyses. After the process of collecting the quantitative data, the data were analyzed by means of inferential statistics, which supported taking decisions about the data (Leedy & Ormrod, 2005).

Creswell (2007) asserted that before the researcher could analyze the data, they must have been organized. This included scoring them, creating a codebook, determining which scores to analyze, inputting the data, and clearing all of them. The data, which were input into a computer file, were the student pre-test and post-test scores. Next, the researcher found the *p* value, or the probability that the result could have been because of chance if the null hypothesis were true (Creswell, 2007).

Using the pre-test and post-test scores from both the class that used cooperative learning strategies and the class that did not use cooperative learning strategies, the researcher could determine the points of central tendency, or the points around which the data revolved (mean, mode, median), as well as measures of variability (variance, standard deviation, and range) for each test (George & Mallery, 2008).

The scores were then compared to understand how cooperative learning strategies, versus no cooperative learning strategies, affected student achievement. The data were analyzed using the software package SPSS 14. To understand the effects of cooperative learning strategy of learning together instruction, pretest and posttest results were compared, and *t* tests were conducted to determine whether the differences were significant.

The statistical analyses tool, t test, was implemented to explore the relationship between the use of Learning Together strategy and undergraduate EFL reading comprehension. This helped the researcher to understand the relationship between undergraduate EFL participants' scores in the reading comprehension pre-test and post-test and to understand the relationship between undergraduate EFL participants' scores in the Learning Together pre and post questionnaires and their reading comprehension.

3.9.2 The Second Stage: The Procedures of Qualitative Data Analysis

The second stage entailed analyzing information collected from each participant during the interview process. Creswell (2009) and Merriam (2009) contended that in a qualitative study, the data collection and the data analysis should mirror each other. Raw data is translated into answers to the research questions by exacting themes apparent in the collective responses of the participants (Shank, 2006). The initial stage of the data analysis process was preparing and codifying the information for analysis.

All interviews were transcribed from the audiotape, and interviewees were given an opportunity to read the transcripts to guarantee accuracy (Creswell, 2009; Farrelly, 2013; Shank, 2006). All notes were typed and data arranged into categories. Creswell (2009) stated that this stage of the analysis provides a distinct picture of the collected information. During this period of analysis, the data was carefully examined to allow the researcher to gain a sense of its possibility (Lodico et al., 2010). The next stage of analysis required that common themes or emerging patterns be identified (Yin, 2010). This stage, data analysis for generic qualitative inquiry, typically involved thematic analysis, finding repeated patterns or meanings across a data set (Braun & Clark, as cited in Kostere & Percy, 2008).

There are three types of generic thematic analysis. One specific type is theoretical analysis, which is used when the researcher has predetermined categories and/or themes to explore during the analysis. Theoretical analysis is driven by the themes in the research questions (Kostere & Percy, 2008). “The data collected is analyzed individually and patterns that emerged from the data will be organized under the preexisting themes keeping in mind that new patterns and themes may also emerge from the data” (Kostere & Percy, 2008, p. 10) in the course of this procedure.

Once the qualitative data had been arranged by means of transcription onto a computer, the data were analyzed. This was done first by rereading and exploring the data several times (Creswell, 2007). Then, the data were coded. This was done by "breaking the relevant information into small segments that each reflects a single, specific thought" (Leedy & Ormrod, 2005, p. 140). By completing the coding process, the code words were listed and condensed based on redundancy. The codes were then reduced to themes or categories (Creswell, 2007).

Using theoretical analysis, the researcher predetermined categories or themes to be explored during the analysis. This type of analysis was driven by the themes in the research questions (Kostere & Percy, 2008). "The data collected was analyzed individually and patterns that emerged from the data were organized under the preexisting themes keeping in mind that new patterns and themes might also emerge from the data" (Kostere & Percy, 2008, p. 10) in the course of this procedure.

3.9.2.1 Thematic Analysis

Thematic analysis is highly regarded and recommended as a theoretically flexible instrument in the process of qualitative data analysis in which researchers classify data as stated by themes, which helps them in discovering patterns. Boyatzis (1998) stated that thematic analysis is a manner of "encoding qualitative information" (p. vii), while Braun and Clarke (2006) defined thematic analysis as a "method for identifying, analyzing and reporting patterns within data" (p. 79). Thematic analysis was used in this research study to help in finding deep and reasonable answers for one of the research questions that framed this study.

Individual interviews and focus group interviews were the main method in the qualitative part of this study to obtain various perspectives on the third research

question “How do undergraduate EFL experimental group students experience using cooperative learning strategy of Learning Together in EFL reading comprehension classroom?” Using the qualitative interviews can give a new deep insight into the studied social phenomenon as they let the respondents reflect and reason on a variety of subjects in a different way (Folkestad, 2008, p.1).

The method of analysis selected for the third question of the study was a qualitative approach of thematic analysis. It could be broadly claimed that thematic analysis is the most widely used qualitative approach to analyze different types of interviews. The conceptual framework of the thematic analysis for both individual interviews and focus group interviews used in this study was mainly built upon the theoretical positions of Braun and Clarke (2006). According to them, thematic analysis is a method used for ‘identifying, analyzing, and reporting patterns (themes) within the data’ (2006, p.79). The rationale behind selecting this method was that ‘rigorous thematic approach can produce an insightful analysis that answers particular research questions’ (Braun and Clarke, 2006, p.97).

The following significant concern of the thematic analysis process was identifying themes in the individual interviews and focus group interviews collected data. What counted as a theme was that it was something which captured the key idea about the data in relation to the research question and which represented some level of patterned response or meaning within the data set (Braun and Clarke, 2006, p.82). As Bazeley (2009, p.6) claimed, themes only attain full significance when they are linked to form a coordinated picture or an explanatory model: ‘Describe, compare, relate’ is a simple three-step formula when report the results.

As Braun and Clarke (2006) explained, themes or patterns within data can be identified either in an inductive 'bottom up' way (citing Frith and Gleeson, 2004), or in

a theoretical, deductive 'top down' way (citing Boyatzis, 1998 and Hayes, 1997). According to Thomas (2003, p.2), the primary purpose of the inductive approach is to allow research findings to emerge from the frequent, dominant or significant themes inherent in raw data, without the restraints imposed by structured methodologies.

Thomas (2003) pointed out three main purposes for using an inductive approach:

(1) to condense extensive and varied raw text data into a brief, summary format;

(2) to establish clear links between the research objectives and the summary findings derived from the raw data; and

(3) to develop a model or theory about the underlying structure of experiences or processes which are evident in the raw data.

However, it could be acknowledged that top-down and bottom-up process are interactive in some way because the research keeps a specific interest in identifying themes influenced by the theoretical framework.

3.9.2.2. Stages of Thematic Analysis Procedures

The data collected through individual interviews and focus group interviews with undergraduate third-level EFL students were analyzed in a similar way based on a three-stage procedure suggested in the literature (Creswell, 2007) as follows: preparing the data for analysis by transcribing, reducing the data into themes through a process of coding and representing the data. Braun and Clarke (2006) pointed out that patterns are identified through a rigorous process of data familiarization, data coding, and theme development and revision. The procedures used for the analysis largely followed the approach proposed by Braun and Clarke (2006).

3.9.2.2.1. The First Stage: Data Familiarization

Familiarization with data was internalized through transcription and interpretation of the twelve individual interviews and two focus group interviews. The audio recordings of both interviews respondents were listened to a number of times for their accurate interpretation and transcription. Interviews were transcribed to understand the meaning rather than the language. Most of the transcriptions were carried out straight after the interviews to consider any clarification. This process was carried out on Microsoft Word Office.

3.9.2.2.2. The Second Stage: Coding the Transcripts

Transcripts and audio recordings of both the individual interviews and focus group interviews were manually coded while listening to recordings as and whenever necessary. When satisfied that the codes generated from the transcripts were aligned with the third research question examining the undergraduate EFL experimental group students' experiences regarding using cooperative learning strategy of Learning Together in EFL reading comprehension classroom and therefore fit for the purpose, the data-driven coding followed with a focus on identifying patterns of meaning.

3.9.2.2.3. The Third Stage: The Theme Development

At this stage, coded nodes were read several times to identify significant broader patterns of meaning (potential themes). The preliminary analysis came up with six main categories. Part of the flexibility of thematic analysis is that it allows the themes and their prevalence to be determined in a number of ways (Braun Clarke, 2006). Although the stages used in the thematic analysis of the collected data looked sequential, they were very repetitive while being built up on the previous stage.

3.9.2.2.4. The Fourth Stage: Determining the Main Themes

The six categories were aggregated and further reduced into the three most referred themes categories. Thomas (2003) pointed out that 'Most inductive studies report a model that has between 3 and 8 main categories in the findings.' Moreover, as the researcher becomes more experienced he or she will find several "buttons to push" in order to get the final results – information – that he or she is searching for (Folkestad, 2008, p.4).

3.10. Ethical Considerations

Hatch (2002) suggested that "every study will be different, but when researchers ask others to participate in their studies at any level, they owe them respect, concern, and consideration" (p. 52). This involves ensuring that research studies are conducted to the highest ethical standards. In relation to the present study the researcher occupied the dual-role of instructor/researcher. He was an instructor at both Unaizah Community College and Unaizah Science and Arts College. He had been an educator for more than fifteen years. He had served as a teacher of English as a Foreign Language for primary, preparatory, and secondary schools for about six years from 1998 to 2004.

He had worked as an instructor in English for Qassim University, Saudi Arabia for several years. He had taught first, second and third levels for more than seven years. Over these years, He had taught students ranging in ability from fair, average, above average to gifted and talented. Traditional lecturing had been an instructional strategy used in his classroom for over seven years. Teachers who conduct research in their own classrooms have the same ethical responsibilities as an outside researcher (MacNaugton & Hughes, 2009).

According to Creswell (2003), prior to the start of any study, a researcher must gain permission of those in authority, which in the case of education research usually includes school administrators, the faculty committee, and the institution review board. In such case, prior to conducting this research study, the researcher had taken some procedures in order to make sure that the study accumulated with ethical considerations and regulations.

First of all, he applied for the Center for Graduate Studies, Universiti Sains Islam Malaysia to get USIM'S letters to both the Dean of Unaizah Community College and the Dean of Unaizah Science and Arts College to seek their permissions to do data collection and survey (See Appendix H for Unaizah Community College and J for Science and Arts College).

Secondly, the two letters were submitted to the two deans to obtain their approvals to conduct this research study in the two colleges. The study required approval from both the Dean of Unaizah Community College and the Dean of Unaizah Science and Arts College before there was any data collection. The approval was sought from both colleges. The deans of the two colleges were informed before any interactions were made with students in these classes. The deans of the two colleges gave permissions to the researcher to use the two colleges as the site of his research study (See Appendix I for Unaizah Community College and K for Science and Arts College).

After permissions were approved by both the dean of Unaizah Community College and Unaizah Science and Arts College, the process of data collection began. Students were addressed during their EFL reading comprehension classes, and were given letters of request to take part in the study and an informed consent form (See Appendix A for English Version and Appendix B for Arabic Version).

Because the study involved human subjects, the participants were provided with the details of the study before participating in the research study. All participants were given a full understanding of what would be taking place during the study to ensure that they were willing to participate. Once confirmation was received, and the potential participants were willing to be a part of the study, each participant was provided with the informed consent form.

A total of five working days was given to participants to review and complete the informed consent form, along with the opportunity to ask any questions or concerns. Within the informed consent form, there was the researcher's contact information in order for the subjects to have any questions or concerns addressed. Participants were also assured that their privacy and confidentiality would be preserved (Yin, 1994).

This showed that all Qassim University protocols were followed, and that all participants were informed about the purpose of the study and that they signed the informed consent. Since some of the participants may face some difficulties in understanding the items of the consent form, the questionnaire, and the interviews, the researcher translated all these items to participating students to their mother tongue, Arabic, to ensure that they were given the information in their native language (See Appendix B for Arabic Version).

Within the informed consent form, there was no indication that the participants voluntarily agreed to participate in the study, that participants had the right to leave the study at any time, and that there would be no compensation, as participation was voluntary. The privacy and confidentiality of all participants were continuously preserved, and their anonymity was maintained through the study. This was done by assigning numerical identifiers to all participants.

Creswell also advised that a researcher should avoid interfering with the physical environment as much as possible (2003). Cresswell also stressed that a researcher must have respect for vulnerable populations (Creswell, 2003, p. 64), who in the case of this study were the third-level student participants of both Unaizah Community College and Unaizah Science and Arts College.

Hatch (2002) suggested that researchers should make an effort to explain to learners what their participation in a research study will involve. The researcher explained to the participants that the results would not be used for an evaluation of their teaching or learning but for the purpose of the study, to determine the actual effectiveness of using the cooperative learning strategy of Learning Together on developing undergraduate EFL students' reading comprehension.

Maintaining confidentiality of participants' identities is vital in most social research: "The ethical code for researchers is to protect the privacy of the participants and to convey this protection to all individuals involved in a study" (Creswell, 2003, p. 65). In the present study, pseudonyms had been used for the participants' names, and no participant names would have been used in order to protect the rights of the students. Informed consent is usually necessary in teacher research because it relieves some of the pressure to participate and makes participants aware of their rights (MacNaughton & Hughes, 2009).

For the purpose of this study, all personally identifiable information had been removed from the research data. Confidentiality of all interview transcripts and test scores was confirmed for all participants of the study. Interviews were carried out using a tape recorder and then transcribed onto a computer. Computer data files had been password-protected and saved in the researcher's office during the period of the study and for seven years and the files would be damaged afterwards.

In conclusion, the data was analyzed and methodically explored to reveal meaning, which in turn allowed the researcher to identify patterns. At the conclusion of this state of qualitative data analysis, the researcher had developed an understanding of meaning within the data, and thick, rich descriptions of the students' experiences within EFL reading comprehension classrooms using learning together strategy had evolved. Hatch (2002) and Yin (2010) emphasized the importance of the data analysis process being comprehensive, fair, correct, valued, and credible.

3.11. Transferability of the Findings of the Study

In order to establish transferability in a mixed-methods study, it must be ensured that the findings provide rich, thick description of the phenomenon being examined (Merriam, 2009). To ensure the transferability of the findings of the present study, the researcher ensured that the data analysis produced adequately rich details such that readers can determine the possibility of congruence with the results based on similarity of the participants' experiences (Lodico et al., 2006).

The outcomes of this research could be transferable to other locations because the study results represent an actual population of EFL undergraduates who utilized learning together in their EFL reading comprehension classroom. The entire research procedure followed the appropriate research protocol and rules, as described in this chapter. Consequently, any researcher who anticipates the need to replicate this research should be able to do a related study by following the steps provided by the current research to yield comparable results.

3.12. Chapter Summary

The purpose of this mixed-methods research study was to investigate the effectiveness of using learning together instruction in improving Saudi EFL undergraduates' reading comprehension. After the quantitative and qualitative data were collected, analyzed, recorded, and translated, the data was coded and themes were analyzed for their significance. This chapter provided an all-inclusive description of the reasoning behind the choice of methodology and the procedures utilized when performing the study. A detailed description of both the quantitative and the qualitative methods followed in order to create the research questions and how the data collection procedures were conducted was provided. In addition to presenting an overview of the quantitative and qualitative methods that were utilized in this study, this chapter discussed in details the study design, the sample, treatment administered for this design, instrumentation and materials, data collection and analysis procedures and methods implemented for this study and the statistical techniques used in the study. Also, the research questions and the related hypotheses of the study were included. Methods of data collection and analysis utilized in this study were then discussed. Finally, the chapter concluded with information related to creditability, transferability, reliability, and ethical issues. This mixed-method design was chosen to examine any correlations between Saudi undergraduate EFL students' reading comprehension academic achievement and using cooperative learning strategy of Learning Together. Results of the quantitative data analysis and statistical findings are .presented in chapter four.