The American University in Cairo

School of Humanities and Social Sciences

Students’ Perceptions of Interaction in a Hybrid Foreign Language (L2) Arabic Course in Light of Their Affective Domain

A Thesis Submitted to
The Department of Applied Linguistics

In partial fulfillment of the Requirements for the degree of Master of Arts in Teaching Arabic as a Foreign Language

By
Hanan Elsayed Ahmed Eltayeb
June, 2014
The American University in Cairo

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Table of Contents

ACKNOWLEDGMENTS ................................................................................................................. 1

ABSTRACT ................................................................................................................................... 4

CHAPTER 1 ...................................................................................................................................... 1

INTRODUCTION .......................................................................................................................... 1
  1.1 Rationale and Statement of Research Problem ........................................................................ 1
  1.2 Research Questions ............................................................................................................... 8
  1.3 Definition of Terms .............................................................................................................. 8
  1.4. Abbreviations .................................................................................................................. 10
  1.5. Methodology ................................................................................................................... 10
  1.6. Instruments ...................................................................................................................... 12
  1.7. Participants ..................................................................................................................... 14
  1.8. Context of the Study ....................................................................................................... 14
  1.9. Procedures ..................................................................................................................... 18
  1.10. Data Analysis ............................................................................................................... 18
  1.11. Conclusions .................................................................................................................. 18

CHAPTER 2 .................................................................................................................................... 19

LITERATURE REVIEW .............................................................................................................. 19
  The History of Distance Education and the Emergence of the Hybrid Teaching Format .................. 19
  Hybrid Course Design ............................................................................................................ 21
  Students' Perceptions of Hybrid Courses .................................................................................. 23
  Interaction ............................................................................................................................... 24
  S-I Interaction in Hybrid Courses ........................................................................................... 25
  S-S Interaction in Hybrid Courses ........................................................................................... 26
  Instrumental and Integrative Orientations ............................................................................... 28
  Self-efficacy ............................................................................................................................ 31
  Anxiety ....................................................................................................................................... 33

CHAPTER 3 .................................................................................................................................... 36

METHODOLOGY .......................................................................................................................... 36
  3.1 Study Design .................................................................................................................... 37
  3.2 Sample and Population ..................................................................................................... 38
  3.3 Instruments ....................................................................................................................... 38
  3.4 Data Collection Procedures .............................................................................................. 44
  3.5 Data Analysis Procedures ................................................................................................. 45
  3.6 Ethical Procedures ............................................................................................................ 46

CHAPTER 4 .................................................................................................................................... 47

RESULTS ...................................................................................................................................... 47
  Part 2, Section A ..................................................................................................................... 50
Instruments and Integrative Orientations..........................................................................................51
Part 2, Section B ................................................................................................................................54
Anxiety ..............................................................................................................................................55
Self-efficacy ....................................................................................................................................57
Section A: The Quantitative Tool .................................................................................................59
S-I Interaction ..................................................................................................................................63
S-S Interaction ..............................................................................................................................65
S-I/S-S Interaction .........................................................................................................................67
Technology .....................................................................................................................................69
Section B: The Qualitative Tool .....................................................................................................71
Thematic Results from the Open-ended Questions ......................................................................72
Theme 1: Difficulty of Participation in the VC sessions (S-I interaction) ....................................74
Theme 2: Technological Challenges (and their Effect on S-I and S-S Interaction) ......................78
Theme 3: S-S Interaction ................................................................................................................81
Theme 4: Views and Suggestions ...................................................................................................83
Class Observation ..........................................................................................................................84
Number and Average Duration of S-I Instances of Interaction(S→I and I→S) in FTF and VC Sections of the Course .................................................................................................................85
Number and Average Duration of S-S Instances of Interaction in FTF & VC Sections of Course: .........................................................................................................................................................90
OTHER OBSERVATIONS ..................................................................................................................93
Conclusions ....................................................................................................................................94

CHAPTER 5 ..................................................................................................................................96

DISCUSSION AND CONCLUSION..............................................................................................96
5.1. Discussion of the Results of Research Question 1 .................................................................97
5.2 Discussion of the Results of Research Question 2 ..................................................................99
5. 2.B. Section B: The Qualitative Tool .......................................................................................105
5. 3 Pedagogical Implications and Recommendations .................................................................122
5. 4 Limitations and Delimitations of the Study .........................................................................123
5. 5 Suggestions for Further Research .........................................................................................124
5. 6. Conclusions ..........................................................................................................................124
REFERENCES ...............................................................................................................................126

APPENDICES .................................................................................................................................144

APPENDIX A .................................................................................................................................144
APPENDIX B .................................................................................................................................150
APPENDIX C .................................................................................................................................152
Abstract

Hybrid courses were developed to maintain the advantages associated with distance learning, while solving the problem of learner-instructor interaction. This would indicate that successful learner-instructor interaction is one of the core features of this type of class which enables it to best serve the learner. To verify the above, a descriptive, qualitative case study was designed to investigate students' perceptions of interaction (student-instructor and student-student) in a hybrid foreign language Arabic course, taking into account their affective domain.

The structure of the hybrid course which was investigated consisted of a videoconferencing session conducted by the main teacher, followed by a face to face class conducted by a local assistant teacher. Both quantitative and qualitative tools were used in this study. The quantitative tool was the close-ended questions of the questionnaire, while the qualitative instruments were its open-ended items and the researcher's classroom observations. The results showed that although students perceived that there was enough interaction in the hybrid course, relatively less student-instructor interaction was present in the videoconferencing part of the course compared to its traditional section. This could be attributed to the technical difficulties they had to deal with in the videoconferencing section. Another factor may be related to the students' misconceptions about the role of the instructor in the different sections of the hybrid course. Alternatively, the group reported that the hybrid nature of the course did not inhibit their student-student interaction.
Chapter 1

Introduction

1.1 Rationale and Statement of Research Problem

The application of information technology in the field of language education has made major changes to its landscape (Sloan Consortium, 2007). Even though teachers and educators have different reactions to the application of technology in class, they cannot deny the fact that educational technologies are changing how instructors teach and how students learn (DeNeui & Dodge, 2006). One important way of applying information technology to language teaching is the facilitation of distance learning. Kozlowski (2002) defines distance learning as "the instructional delivery system whereby instructors and students are in different geographic locations and where the instruction and the receiving of information do not necessarily occur at the same time" (p. 1). Distance education dates back to the late 1800s, when it took the form of correspondence courses sent to students by mail (Campbell, 2010). Those correspondence materials have today progressed to include the different delivery systems for online courses: synchronous and asynchronous. Nowadays, online learning comprises of videos, teleconferencing, multimedia and online discussions (Toth et al., 2008). These new pedagogical innovations have changed learners' perceptions of distance education, as they have made online courses more appealing to students' interests. Because of this, these programs have gained more recognition than ever before (Campbell, 2010). The benefits of online courses are documented in many studies. Sawyer (2005) mentions that one of these benefits is students' ability to
utilize high-speed telecommunications technology in order to be provided with fast, revised and personal feedback. He explains that online benefits also include:

"Convenient, flexible education and training at anytime, anywhere, and on the student's own schedule. They can complete training modules in small chunks almost continuously (raises student satisfaction). Students have greater access to a variety of education and training options; they can experience a greater range of subjects/courses, attend multiple/top schools, schools that are too distant, etc." (p. 129)

As distance education courses began to attract a growing number of students, researchers started to investigate its effectiveness (Yazon et al., 2002) and despite the above-mentioned strong points, some research has pointed out that they have limited advantages when compared to face to face (FTF) teaching (Campbell, 2010). They also discovered that online courses have little impact on the results of students' learning (McCray, 2000).

Brown and Liedholm (2002), and Terry et al. (2003), explained that students enrolled in traditional FTF courses reported higher scores relating to their performance and satisfaction than did students of online courses. This controversy about the effectiveness of online courses can be blamed, at least partially, on an insufficient degree of interaction with teachers and peers (Black, 2002; Yazon et al. 2002). Yousif (2004) asserts that hybrid classes have been developed in order to solve the problem of learner-instructor interaction and at the same time keep the several advantages associated with distance learning.

Hybrid instruction is a revolutionary teaching method provided by technology in the field of teaching and learning (Iqbal, 2011). The hybrid course, as defined by Utts et al. (2003), is "one that utilizes both distance learning via the web and the
traditional classroom format in some combination" (p. 1). It is also recognized as a kind of non-traditional course that is neither totally online nor totally FTF, but rather a unique blend of both (McCray, 2000).

The desire to include hybrid courses in learning systems is increasing due to budget and staff issues, and pressure on college administrations (Campbell, 2010). The current trend is to have one experienced instructor who teaches the online part of the hybrid course to students of more than one university, with the face to face instruction supplied by a teaching assistant. This practice is economical for universities that suffer from shortages in both funding and qualified faculty members. One of the advantages of the hybrid mode of teaching is that it enables students to complete their tasks at their own convenience (Olson, 2003). Other benefits are proposed by Tuchman (2002) as the availability of online opportunities for obtaining feedback, evaluation and practice which help students to learn, stay on task, and manage their time efficiently. In addition, hybrid instruction increases opportunities for S-I interaction which are reduced in purely online courses (Yousif, 2004).

The types of interaction in all second-language learning situations are classified by Moore (1989) as student-content interaction, student-student interaction (S-S) and student-instructor interaction (S-I). These kinds of interaction exert an influence on the overall effectiveness of teaching (Moore, 1989). Black (2002) asserts that hybrid courses permit the teacher to depend on facets of both traditional FTF lessons and online classes, which allow learning to take place both synchronously and asynchronously. It briefly encompasses the best learning methods of both computer-mediated and FTF classes (Wilson, 2008). Marty (2003) asserts that hybrid courses' strengths are related to the fact that they encompass interaction which takes place in FTF classroom instruction, alongside the best traits of online education. Iqbal (2011),
on the other hand, points out that the interaction between the students and instructor, and among themselves, in a hybrid course does not occur only in the FTF classes but through the web classes as well.

Videoconferencing (VC) mode is one of the technological devices that hybrid classes can rely on to promote interaction. Lee (2007) contends that VC is characterized by its audio and visual features, which favor it as a teaching and learning tool that promotes the availability of interaction and dialogue in FTF teaching. The benefits of hybrid courses have been documented in research, such as the study by Hall and Mooney (2010) on students' perceptions of hybrid courses. They conclude that students perceive this type of teaching mode as offering high levels of interaction that do not exist in traditional classes. Learners in the same study believed that hybrid courses provide them with an energetic and accessible learning experience. It also provides them with useful internet resources and online references for their study topics. The results of another study made by Hall (2006), demonstrate that nearly two thirds of the respondents surveyed considered the hybrid course-teaching format to be more successful than the traditional FTF teaching mode, and that about 70% stated that "the course fully met their expectations" (p. 45). S-S Interaction and cooperative learning are also mentioned as advantages of the hybrid courses (Roseth et al., 2013).

The hybrid course teaching format, however, is not free of drawbacks. Jackson and Helms (2008) point out that one of the weaknesses of the hybrid course format that was reported by students is the small amount of human interaction between students and their instructor, which can result in a kind of communication breakdown in class. This reduced S-I interaction leads to a decrease in the amount of information students can get from the instructor. Additionally, interaction with other classmates is
viewed by students as being less than they would usually get in regular classes. Dougherty et al. (2011), on the other hand, report that learners’ participation and attention is reduced when the instructor is on the other side. According to Lawson et al. (2010), one of the main challenges facing hybrid courses is that students are often distracted by off-topic discussions, which reduces S-I interaction. Having to always email the instructor and to deal with technological problems is considered a waste of time by students. Technological challenges, such as sound issues, are another drawback of this kind of teaching format. The above-mentioned benefits and shortcomings of hybrid courses have provoked controversy about whether this mode of teaching provides enough interaction for the students in class. Since educational institutions are starting to implement hybrid courses on a wide ranging scale, it is imperative for us to investigate the educational implications of utilizing such classes. In addition to this, the perceptions of both instructors and students need to be thoroughly understood, (Campbell, 2010).

Iqbal (2011) asserts that researchers should investigate students' perceptions of hybrid courses, since universities nowadays are targeting a wider demographic to increase the enrollment of non-traditional and mature students. Yousif (2004) emphasizes the importance of investigating students' impressions of hybrid courses when explaining that, without comprehension of students' perceptions, progress and development with the hybrid design and curriculum are not possible. Researchers generally agree that understanding students' opinions is crucial to assess college courses (e.g., Ramsden & Dodds, 1989; Jackson & Helms, 2008). However, gaining this understanding requires the study of factors affecting it in second language learning situations. Research in second language acquisition concludes that affective variables are fundamental factors which greatly impact students' learning (Gardner &
Lambert, 1972; Horwitz & Young, 1991; Schumann, 1975). This is especially true in the case of less commonly taught and non-cognate languages like Japanese and Arabic. As Samimy (1994) states, students whose first language is English often experience negative affective reactions when learning Japanese. He explains that students' unfamiliarity with the alphabetical characters can give rise to "major affective as well as cognitive barriers for learners to overcome" (p. 29). As Arabic is one of the less commonly taught languages (Lee, 2005), its non-cognate nature could generate negative affective emotions that influence students' perceptions in the learning situation.

Affective factors, according to Brown (2013) include attribution, attitudes, self-efficacy, anxiety and motivational orientations. Motivational orientations are classified by Gardner and Lambert (1972) into two categories; integrative and instrumental orientations. Instrumentally motivated students learn the language for practical and economic reasons, while students with integrative motivations study the language because they desire to integrate into the target language's social group, towards whom they have positive attitudes (Gardner, 1985, Gardner & McIntyre, 1991). These orientations reflect a sincere inner motivation to speak and interact using the second language. On the other hand, if these motivations are low, there will be limited use of L2 in class interaction (Lasagabaster, 2002). Anxiety is another affective construct that is examined as a factor that largely influences students' perceptions of learning (Horwitz, 2010).

Anxiety is a compound of feelings, behaviors and beliefs related to classroom language learning. This complex mixture arises from the uniqueness of the language learning environment and it is connected to fear of interpersonal communication in the classroom (Horwitz, Horwitz, & Cope, 1991). They add that classroom interaction
is considered a manifestation of language anxiety. However, self-efficacy is another factor that refers to the learner's beliefs of his/her own personal ability to achieve the desired proficiency level in the target language (Tremblay & Gardner, 1995). Researchers suggest that self-efficacy is related to external and internal factors and to how the learner attributes his/her failure or success in the learning situation (Hsieh & Kang, 2010). Gorsuch (2009) points out that "self-efficacy very much belongs to the world of experience (the past), and plans and actions (the present and future)" (p. 509). People are supposed to adjust and develop their feelings of self-efficacy by interacting with each other in various contexts (Pajares, 2008), including the context of the classroom. Interaction in the classroom is a platform that provides students with language experiences that create positive or negative judgments about their self-efficacy (Gorsuch, 2009). As mentioned earlier, learning Arabic-like learning Japanese—could be challenging for English speakers. Besides the unfamiliarity of Arabic characters to English-speaking/Western learners, Dabrowski (2005) points out that Arabic is read and written from right to left and this characteristic can provide some extra difficulty for Western students. Furthermore, additional trouble is caused by the fact that Arabic is usually written with no short vowels. Short vowels in Arabic are considered morphological and semantic markers which greatly affect the words' meanings, which could add to students' frustration during the learning process. All of the above could negatively affect students' process of language learning, including the various forms of class interaction including S-S/S-I interaction.

Even though the topic of hybrid courses is relatively new as a subject of research, it has been investigated in multiple disciplines like economics, business, and curriculum development, from various angles and approaches. Nonetheless, after inspecting existing research it is found that current literature lacks specific research
examining student perceptions of interaction while learning a foreign language, in a hybrid course environment. There is a scarcity of research which investigates the quality of classroom interactions in the hybrid course format environment (Iqbal, 2011). Since teaching Arabic through a hybrid mode of instruction is relatively new, research on Arabic students' perceptions of interaction in hybrid courses is rather limited. This study will therefore attempt to scrutinize students' perceptions of interaction in a hybrid course of Arabic as a foreign language, in light of their affective domain. The researcher seeks to analyze the students' opinions and beliefs about interaction in this hybrid model, in order to highlight the advantages and detect problems in this new teaching format.

1.2 Research Questions

1-What are the distinguishing features of the targeted group's affective profile, particularly in regards to their instrumental and integrative motivations, self-efficacy and anxiety?

2-What are the targeted group's perceptions of S-I and S-S interaction in this hybrid course of Arabic as a Foreign Language?

1.3 Definition of Terms

1.3. A. Hybrid course
It is defined as: "any course that meets between 50% and 80% of the semester in an online format with the rest of the semester dedicated to face-to-face instruction and interaction" (Campbell, 2010, p. 13).

1.3. B. Interaction
It is defined as: "reciprocal events that require at least two objects and two actions. Interactions occur when these objects and events mutually influence one another. An instructional interaction is an event that takes place between a learner and the learner's
environment. Its purpose is to respond to the learner in a way intended to change his/her behavior toward an educational goal. Instructional interactions have two purposes: to change learners and to move them toward achieving their goals" (Wagner, 1994, p. 8).

1.3. C. Student-Instructor (S-I) Interaction
In this study S-I interaction is defined as verbal interaction that takes place between the student and his instructor (or vice-versa) in class e. g asking questions/exchanging comments.

1.3. D. Student-Student (S-S) Interaction
It is defined as the kind of verbal interaction that takes place between one student and other student/students in class in the presence of the class teacher.

1.3. E. Rhetorical Questions
They are defined as "questions that neither seek information nor elicit an answer"

(Borkin, 1971 & Sadock 1971)

1.3. F. Convergent Questions
They are questions that "encourage similar student responses or responses which focus on a central theme. These responses are often short answers, such as "yes" or "no", or short statements" (Lockhart, 1989, p. 186).

1.3. G. Divergent Questions
They are questions that "encourage diverse students' responses which are not short answers. They encourage students to provide their own information "(Lockhart, 1989, p. 187).

1.3. H. Affective Variables
Gardner and MacIntyre (2003) define affective variables as: "Those emotionally relevant characteristics of the individual that influence how she/he will respond to any situation" (p. 1).
1.3. I. Anxiety
It is defined by McIntyre & Gardner (1994) as "The feeling of tension and apprehension specifically associated with second language texts, including speaking, listening, and learning" (in Subasi, 2010, p. 30). In this study, anxiety associated with speaking with instructors and peers is considered.

1.3. J. Integrative Orientations
They are: "Attitudes that reflect a desire to identify with a language and its culture towards which the L2 learners show some empathy: there is the aim of establishing a closer bond with the L2 community and language from a personal viewpoint" (Lasagabaster, 2002, p. 1693).

1.3. K. Instrumental Orientations
Gardner and Lamber, (1972) define instrumental orientations as "utilitarian motives whose objective is not to seek for integration in the target group, but rather the achievement of social acknowledgment and economic advantages" (Lasagabaster, 2002, p. 1694).

1.4. Abbreviations
VC                        Videoconferencing
S-I                        Student-instructor
S-S                        Student-student
FTF                        Face to face
HREB                       Human Research Ethics Board

1.5. Methodology
As previously mentioned, the purpose of this study is to understand students' perceptions of interaction in the Arabic hybrid course, taking into consideration their
instrumental and integrative orientations, anxiety and self-efficacy as factors that could affect learners' interaction.

This is a descriptive, qualitative case study. A case study is defined as "the in-depth study of instances of a phenomenon in its natural context and from the perspective of the participants involved in the phenomenon" (Gall et al., 1996, p. 545). Stake (1995) contends that in case studies, researchers must investigate a number of participants, a program, an organization, or specific roles, processes or events. In qualitative case studies, researchers attempt to investigate or describe "a phenomenon in context using a variety of data sources. This ensures that the issue is not explored through one lens, but rather through a variety of lenses, which allows for multiple facets of the phenomenon to be revealed and understood" (Baxter & Jack, 2003, p. 544). This is called triangulation of data. In Johnson and Onwuegbuzi (2004), triangulation is defined by Greene, Caracelli, and Graham (1989) as "seeking convergence and corroboration of results from different methods and designs studying the same phenomenon" (p. 115). It is further defined by Denzin (1978) as a "between (or across) methods" kind of research" (p. 302). Since Oppong (2013) emphasizes that a small number of research participants leads to bias in the study's findings, and the case studied in this research is a group of 12 students, triangulation of data collection instruments is recommended in order to overcome this drawback. Thus, in this study, three data collection tools are utilized. A quantitative tool, namely a Likert-scale questionnaire, is employed as a self-reported instrument that allows for understanding of how students perceive classroom. It also has an open-ended part that is qualitatively analyzed, where students speak more freely of their perceptions and/or where they explain why they hold the mentioned perceptions. Additionally, another qualitative tool (the observation of classes) is utilized in order to study actual
communications and behaviors that take place in class, so that we can identify how this kind of interaction really takes place (Smith & Hardman, 2003). Convergence between the questionnaire (its quantitative and qualitative parts), and class observation would increase our belief that the results and conclusions of the questionnaire and so the study are valid and "not a methodological artifact" (Bouchard, 1976, p. 268).

1.6. Instruments
1.6. A. Questionnaire: Appendix A

In this study, a questionnaire is used in order to investigate students' perceptions of interaction in their hybrid course. Use of the questionnaire is prevalent in research because it aids in answering the research questions in a disciplined and systematic way (Dornie, 2007). The questionnaire in this study is divided into three parts: the first part seeks participants' demographic data (age and gender). Ascertaining the age of the participants is important, to ensure compliance with the Human Research Ethics Board (HREB) regulations, as students less than 18 years old must have parental permission to participate in any research. This section however was not included in the process of analysis of study results.

The second part includes fourteen, 5-points, Likert-scaled questions that probe learners' affective variables and are divided into two subcategories: A and B. Subcategory A deals with students' integrative and instrumental orientations, while subcategory B investigates their self-efficacy and anxiety. Part Three, on the other hand, consists of 26 questions which are all geared to detect students' perceptions of their S-S and S-I interactions. They are subdivided into three categories. The first 10 items are exclusively 5-point, Likert-scale questions. Questions 11 to 20 are 5-point Likert-scale questions which also have an open-ended section entitled "Please
Explain”. The final 6 items are entirely open ended, in which participants are asked to write freely about what they think regarding certain aspects of interaction in their hybrid course.

1.6. B. Observation: Appendix B

An observation technique is applied in both facets of the hybrid course (VC and FTF lectures), in order to record how S-I and S-S interaction actually takes place. Hoepfl (1997) describes observation as a classic data collection technique which depends upon observing participants in their natural context. The observation data is utilized to describe people, activities and settings from the viewpoint of the participants. It provides an understanding of the setting in which events take place, and helps the researcher to comprehend things that the participants themselves are not conscious of, or unwilling to talk about (Patton, 1990). He points out that observation is a research technique that collects data by observing the behaviors, communications, activities and characteristics of people. He adds that observations can be recorded either by instruments, such as cameras and audio recorders, or by human observers. He explains that structured observational methods dictate which specific things the observer should observe, and how they should record these observations. The researcher in this study observed randomly selected FTF and VC sessions which were not in sequential order. She prepared and used checklists in order to record S-I and S-S types of interaction that took place in the hybrid course lectures. During recordings, the researcher took notes and after the classes were finished, she listened to voice recordings of the sessions in order to revise and expand upon what she had written down. Themes were then extracted from the observation data and juxtaposed with the data from students' questionnaires, in order to reach the study's results and conclusions.
1.7. Participants

The purpose of this qualitative, descriptive case study is to conduct an in-depth examination and make use of information-rich samples. Perry (2011) adds that in studies of this nature, "the more information-rich data obtained, the better" (p. 58). He asserts that, as having access to the entire population of participants is almost impossible; researchers usually resort to participants who are convenient and available to them. Gall et al. (1996) call this technique "convenience sampling". Following the same strategy, participants in this study are drawn from a pool of beginner-level undergraduate students of Arabic who form the population of students enrolled in this hybrid course. Their native language is English. The sample consists of twelve participants; eight females and four males, whose ages range from 18 to 25. The study is designed to examine the case of one group of participants using a self-reported survey and observation when the hybrid course has almost ended. The group is dealt with in its entirety, not as individual cases (i.e. the entire group is the case being studied not individual subjects forming the group).

1.8. Context of the Study:

This study took place in the Arabic program at the State University of New York in New Paltz, during the 2013 fall semester. This program opened in the academic year 2013-2014. Because it is new, and due to limitations in finances and personnel, it started with one elementary hybrid 101 level class, taught by two teachers. The main teacher of the class teaches via videoconferencing technology (VC) from Berkeley, California while his local teaching assistant teaches face to face (FTF) in New Paltz. Neither of these teachers is full time faculty, which proves economical for the university. This class is a four credit, one hour hybrid course that is taught four times a week. The VC teacher is the main instructor. He writes the
course syllabus, weekly lesson plans, quizzes, and the final exam and emails them to his teaching assistant. He usually emails the weekly lesson plan on the weekends. The VC instructor also sends the quizzes, which always takes place in the FTF lectures, a few days before their assigned date. The two instructors teach the course components sequentially. Lectures are structured weekly as one VC session one day, in which one part of the lesson is explained, followed by a FTF lecture the next day, during which the next part is presented. Lesson exercises are completed according to the lesson plan. The role of the main instructor (the VC teacher) is basically to introduce and explain the course content and sometimes do exercises and applications. He provides his students with feedback orally during the class, or via email. Alternatively, the basic role of the local instructor is to ensure students’ comprehension through more verbal interaction and sometimes explain parts of the course content. She provides her students with feedback orally during the class, their office hours or via email. Both instructors adopted an eclectic approach to teaching (communicative and audio-lingual) which varied in extent, according to his/her designated role in the course. The audio-lingual approach is sometimes used because it is an elementary course in which students learn the new language by repeating after the instructor. No clear explanation was given to students about the role of each instructor in this hybrid course, or about how the process of integration between VC and FTF components takes place. The teaching assistant attends VC lectures in order to help the main instructor to observe students' writing and/or guide their oral practice. The two instructors communicate in and out of class, through emails, phone calls and messages. An elementary Arabic class at another school (North Dakota State University 'NDSU') attends the VC sessions of the course concurrently with New Paltz students. During the VC sessions, in Fargo as in New Paltz, a local instructor
attends the VC sessions who is also their FTF teacher. The main instructor—as previously mentioned, he broadcasts from Berkeley, California—teaches students from the two schools simultaneously using the VC technology. For example, he can ask students from either class a question and if they cannot answer it, he might ask students from the other class to answer. New Paltz students can see learners from Fargo via the front screen, as will be further explained. They can hear each other as well. Due to time limitations, the researcher could not get approval from NDSU's Human Research Ethics Board. As a result, this study is limited to students of New Paltz only. Montana State University is the administrator of the whole network, and they connect all the sites from Bozeman, Montana. This technical aspect is referred to as the Bridge. All students of the VC class (including participants of this study) use the learning management system of Montana State University, which is called D2L.

VC sessions always take place in a soundproof classroom, specially prepared for videoconferencing. In addition to the synchronous part of the Arabic hybrid course, the VC room is used throughout the academic semester for multiple purposes. It is used to conduct candidate searches for open faculty or staff positions at New Paltz. It is also used to conduct training webinars for faculty and staff members. Groups of students who are planning to study abroad usually use the room to connect with people at their intended destinations. Also, learners who are interested in volunteer opportunities may connect and speak with the organizations who recruit these students. A sociology class has used this VC room multiple times to connect and speak with staff at a home for emotionally disturbed young people.

The VC class is equipped with three large screens. Two of them are located in front of the students and one is at the back of the class. One of the front screens shows the instructor's video feed. The second front screen is divided into two parts; a picture
of students of New Paltz is shown in one corner while the video feed of the students at NDSU is shown in the other corner. Students sit in rows facing the two large screens. The teaching assistant sits at a desk facing her students, where she can watch the main instructor via the back screen.

Before beginning of the VC class, technicians from the office of instructional media services (IMS) check the sound, lighting and set the screens in motion. The teaching assistant is there during these checks and makes sure that the technology is ready for the class to get started. In the case of technological problems happening whilst class is in session, the teaching assistant has to seek help from the IMS office which is located near the VC room. IMS Technicians often drop by while the VC is in progress to check if everything is running smoothly. The sound in class is controlled via a remote control (with a mute/un-mute button) that should be in the hands of the teaching assistant during the whole class. Students enter the VC room at the beginning of the class. The main instructor then starts the lesson. The remote control is un-muted or muted, depending on the main instructor's request; due to over-sensitivity of the microphone, he sometimes asks his teaching assistant to mute the sound to cut down on background noise while he is explaining the lesson. If a student has a question, she/he raises her/his hand and waits until the main instructor recognizes her/him through the cameras, then asks her/him to speak. If the sound is muted, then the main instructor asks his teaching assistant to un-mute the microphone, then the student is free to talk.

This study seeks to investigate how students of this hybrid course (12 students) perceived S-I and S-S interaction, in light of their affective domain, in order to provide new insights into the current debate about the efficacy of this new pedagogical innovation.
1.9. Procedures
The questionnaire was distributed to students near the end of the semester, after approval of HREB was obtained. Additionally, an observational data collection tool was administered to both facets of the hybrid course as the researcher randomly recorded 4 FTF lectures and 4 VC sessions. All collected data were organized and triangulated, and common themes that emerged from both observation and questionnaire data were identified, coded and juxtaposed in order to derive the study's results and conclusions.

1.10. Data Analysis
Research data underwent both quantitative and qualitative analysis. In addition to analyzing the percentages of the Likert-scaled items of the questionnaire in order to come up with common trends, its open-ended part underwent qualitative analysis in which themes emerged through repeated reading. Observation data was subjected to the same qualitative thematic analysis as well. Themes from both the observation and the questionnaire were juxtaposed in order to infer the study's conclusions.

1.11. Conclusions
This study seeks to contribute to the existing literature regarding the hybrid teaching environment and its effect on students' perception of the quality of interaction that takes place inside the class. New suggestions may be traced in order to ameliorate interaction inside the class. Additionally, it might shed light on the technological aspects of the course, which could help electronic providers create better educational instruments that might yield better quality language learning in the future.
Chapter 2

Literature Review

The purpose of this literature review is to follow research relating to the hybrid mode of teaching and learning. It also aims to probe the various kinds of interaction which occur in this format, as well as some constructs of affective variables such as instrumental and integrative orientations, self-efficacy and anxiety. It starts by shedding light on the history of distance learning in general, then moves on to how the idea of hybrid teaching emerged. In presenting the characteristics of the hybrid teaching and learning mode, two main issues are discussed: hybrid course design, and students' perceptions of hybrid courses. The review then moves on to explore the concept of interaction, as classified by Moore (1989) and its definition and types. S-I and S-S interaction in hybrid courses are then discussed and the studies’ conclusions are revealed. This literary presentation thereafter discusses studies of instrumental and integrative orientations, followed by self-efficacy and finally anxiety. In this regard, the investigation of the relevant studies is regarded in a more general manner with the scientific, unanimous convention that in a language learning context, particular aspects can vary greatly, "invalidating any attempt to typify findings as universally true or literally applicable" (Iqbal, 2011, p 15).

The History of Distance Education and the Emergence of the Hybrid Teaching Format

Distance education dates back to the 1840s, when Sir Isaac Pitman began to facilitate the first correspondence class for learners to continue their education from a distance (Hall & Mooney, 2010). This early distance education relied mainly on printed materials sent to students by mail (Nasseh, 1997). Campbell (2010) explains
that in the late 1800s, lantern slides were sent to learners by educators through the mail, along with written instructions. Several years later the use of radio was introduced, but this tool did not survive long due to political issues during World War II (Nasseh, 1997). Nevertheless, the advent and decline of radio use paved the way for what became known as educational television (Nasseh, 1997). Campbell (2011) points out that through the 1950s and 1960s, postal mail and recorded videos remained the main modes of instruction. He also explains that between the early 1970s and late 1980s, as satellite and cable technologies thrived, universities started to employ them as a medium for delivering high quality distance learning courses (Nasseh, 1997, p. 5). Distance education enjoyed further progress as the era of internet began (Yazon et al., 2002). Progress was made as lantern slides and written, posted materials were replaced by radio, then television, and finally satellite innovations. Online synchronous and asynchronous modes initiated a new age of distance education (Campbell, 2011). Alrawy (2006) attributes the rapid escalation in distance education to the growth and expansion of these new technologies. An incredible increase in the number of students studying online courses accompanied these technological moves (Campbell, 2011). Research reveals that students recognized that online education allowed them easier access to courses, better control of their studies and work tasks, reduced tuition costs and no travel expenses (Roger & Brown, 2000; Johnson, 1999). Nonetheless, they suffered from unpredictable technical faults and tended to be uneasy and sometimes nervous due to the relative absence of class interaction and participation (Hollis & Madill, 2006).

As a solution to these inconveniences, hybrid course teaching was introduced (Aase, 2000; Burgstahler1997). Hollis and Madill (2006) point out that this mode of instruction has been overlooked by educators as an alternative method of teaching. A
major characteristic of hybrid courses is that they merge the benefits and pedagogical advantages of online education with traditional instruction (Chamberlin, 2001). The same concept is emphasized by Wilson (2008), when he maintains that hybrid courses are based on blending the advantages of new technology with "the benefits of human contact in the classroom" (p. 237). Rothmund (2008) mentions that, if integrated properly, hybrid courses can have a significant combined effect which enhances learning. This is because they make use of the online component's advantages while exploiting the strengths of the traditional FTF environment. Many other scholars have confirmed this conclusion; "by bringing together in-class meetings and activities with the flexibility of online learning, the hybrid model addresses many of the concerns that arise in comparisons of FTF and fully online classes" (Toth, Foulger, & Amrein-Beardsley, 2008, p. 76). Literature on the hybrid teaching format is relatively new and so less developed than that which discusses online instruction (Wilson, 2008). Such literature mainly seeks to examine two topics: the design of hybrid courses and students' perspectives regarding these courses.

Hybrid Course Design

In a study on MBA students' viewpoints of S-I and S-S interaction in four hybrid courses, Rothmund (2008) declares that "what might seem ideal can be ineffective if incorrectly designed" (p. 27). He also adds that hybrid courses must stick to the rules of sound educational design, in order to determine how to properly blend teaching strategies. The challenge that faces the hybrid instructional designer is to tailor a design that inspires and effectively encourages interaction, as course design decides both the level and the quality of interaction. Lee and Dashew (2011) draw the same conclusion in their study which investigates designed learner interactions through a hybrid course. They maintain that one of the biggest challenges in teaching
a hybrid course is the lack of continuous personal interaction; that is, exposure to learners' verbal and nonverbal cues as they communicate. As a solution, the authors suggest that teachers should critically approach their instructional designs and activities when making the transition to a hybrid learning format. They add that using technology in a hybrid course is always perplexing for instructors who are accustomed to teaching face-to-face courses. In another study conducted by Hall and Moony (2010), it is concluded that the increased availability of internet resources promotes incorporated learning and improves learning results. Researchers recommend that instructors must change their approach to teaching in hybrid courses in order to meet the needs of their non-traditional students.

Black (2002) states that students in a hybrid course should have interaction in FTF lectures, accompanied by web based learning exemplars; for instance pictures, videos and audio clips, real time information and maps. He also notes that successful hybrid courses should examine course materials carefully. This is in order to decide how online sources can be used to serve its pedagogic goals and generate new approaches to interact with students, along with facilitating ongoing evaluation and rebuilding of the course as challenges appear. In a hybrid course which utilizes both FTF and VC teaching methods, Knutson, Knutson and Slazinski (2003) assert that the VC part should be carefully designed to satisfy the students' needs. It ought to meet the criteria of "integrated functionality, allowing for application sharing and white board discussions" (p. 73). Additionally, instructors should utilize internet resources in their course delivery. A study conducted by Wang (2004) concluded that utilizing VC tools (specifically the NetMeeting tool in this case) in an online language hybrid course reveals itself to be an effective practice for enhancing learning and interaction. He explains that it should integrate audio, video and data conferencing into a single
package. In a hybrid course, utilizing VC tools such as NetMeeting has many pedagogically important features, such as a whiteboard where students can write and/or draw linguistic characters. Hybrid courses, however, have been researched through many perspectives other than that of their design. Scholars should scrutinize hybrid instruction through students' perceptions as well, since universities are seeking to attract more students to this type of course (Iqbal 2011). Yousif (2004) likewise highlights the importance of exploring students' perceptions of hybrid courses, when he clarifies that an inadequate comprehension of students' perceptions may impede the progress and improvement of the hybrid design and curriculum.

**Students' Perceptions of Hybrid Courses**

Literature on the perspectives of students in hybrid courses yielded varied results which led to different conclusions. In a study conducted by Dougherty, Butler and Hyde (2011), students reported that hybrid courses were effective in terms of engagement and communication. The researchers concluded that students perceived the hybrid delivery method as being beneficial to their learning goals and mentioned that they felt it met their needs in learning situations. Leh (2002) used action research to examine the opinions of students towards hybrid courses and the effect of using different teaching strategies in both FTF and online formats. She concluded that learners reported positive feelings toward hybrid instruction and said that it has a positive effect on their learning. The same sentiment was reported by the students enrolled in the University of Wisconsin-Milwaukee Hybrid Course Project, who emphasized the positive impact of hybrid courses on their technological learning skills (Olson, 2003). The participants in this study described the hybrid course as valuable and said that they would recommend it to other students. In 2002, the result of Leh's study suggested that students favored hybrid courses and reported that they
learned more in a hybrid teaching environment than they did in a traditional course. Nonetheless, in the same research her students listed some hurdles they encountered on that hybrid course. A lack of personal communication and the occurrence of technical problems in the online part made them feel pressured and anxious, which certainly affected their learning experience with this new mode of instruction.

Researchers depicted negative students' perceptions of the hybrid course in other instances as well. After evaluating two hybrid courses that were being offered, Wilson (2008) concluded that "students' satisfaction, measured using standard class evaluations, was lower for hybrid deliveries, but not to a statistically significant degree" (p. 245). In another study conducted by Jackson and Helms (2008), it is mentioned that students perceived the online part of the hybrid course as being characterized by a lack of interpersonal interaction and the existence of some technical challenges. They also felt that hybrid classes are given less consideration by employers and local communities, due to students' perceived lack of learning and retention.

In another study on students' participating in an introductory hybrid course of statistics, Utts et al. (2003) reported that learners felt less pedagogically satisfied than their peers who were enrolled in a traditional FTF class. Jackson and Helms (2008) found that the hybrid courses have almost the same disadvantages as the online courses and the integration of FTF interaction did not reduce the weaknesses recognized by students. The students in this study reported a considerable number of technical problems and a dearth of teacher-student interaction.

**Interaction**

Interaction is the focus of the most recent studies in the field of distance education. Interaction is easily confused with the construct of interactivity.
Interactivity is defined as “the medium's ability to permit the participants to exchange information with each other. Interaction is a "learning outcome" (Alrawy, 2006, p. 28) that results from classroom interactivity and mirrors its ability to provide students with opportunities to interact. However, some researchers define interaction and interactivity as referring to the same concept. Bernstein (2013) explains that "Interaction (or interactivity) is the process of developing communication among the learners and the instructor in what is described as the community classroom" (p. 30).

Interaction takes place between the instructor and student, among the learners, and between them and the content of the course (Alrawy, 2006). Moore (1989) categorizes the components of interaction in the second language learning classroom into three distinct kinds: S-S, S-I and student-content interaction. Another type added by Hillman et al. (1994), is referred to as student-interface interaction. However, the current study is limited to S-S and S-I interaction.

**S-I Interaction in Hybrid Courses**

S-I denotes feedback and discussions between the students and the instructor (Alrawy, 2006). Moore (1989) concludes in his editorial that most instructors believe that the S-I kind of interaction is the most crucial and desirable to learners. It is believed that S-I interaction inspires students' motivation and stimulates their interest in learning the target language. In addition, it aids in avoiding or resolving misunderstandings and shedding light on areas that seem difficult to the learners. Demonstrations, discussions and presentations are models of S-I interaction. Through this type of interaction, guidance, assistance and encouragement are granted to students each according to his or her needs and personality (Moore; Moore & Kearsley, 2005). Lee and Dashew (2011) clarify that teachers can use different techniques to interact with their students; for instance, students' facial expressions can
be used to assess how well they grasped a concept, and their tone can be used to judge how confident they are in their answers. Instructors can adjust their feedback accordingly and tailor class discussions. But how are these types of interactions applied to a hybrid course? Lee and Dashew (2011) assert that "the advantage of a hybrid course is that both the FTF and online components can be leveraged to better enhance the learner-instructor interactions" (p. 76).

In designing a hybrid course, a balance of efficiency, effectiveness and enjoyment is needed in order to invite and encourage students' interaction. In order to facilitate interaction, the instructor should also utilize online asynchronous communication tools (Lee & Dashew 2011). Knutsen, Knutsen, and Slazinski (2003) maintain that in a hybrid course which utilizes both FTF and video components, instructors should use both the synchronous and asynchronous available tools in order to provide students with engaging interactions that facilitate the learning experience. The main objective that a teacher should accomplish in his interaction with students through a hybrid course is to make them feel connected, engaged and motivated to interact with him and others in the course (Lee & Dashew 2011). Despite the fact that S-I interaction is given the most credence by students, and is therefore perceived as eliciting a higher value, S-S interaction is nevertheless necessary and important in order to maintain effective teaching (Moore, 1989).

**S-S Interaction in Hybrid Courses**

Creating an effective learning environment is important for successful learning. One of the key factors of such an environment is the interaction that takes place among the learners. This kind of interaction leads to establishing a strong community of learners who usually value this sort of inter-student communication (Lee & Dashew, 2011). Moore and Kearsley (2005) declare that S-S interaction is a
"structured or non-structured form of exchange ideas, dialog and information among students about the course content" (Alrawy, 2006, p 29). Phillips, Santoro and Kuehn (1988) explain that this kind of interaction is an essential foundation and resource for learning. Moore (1989) defines S-S interaction as "inter-learner" interaction. He maintains that S-S interaction takes place "between one learner and the other learners, alone or in group settings, with or without the real-time presence of an instructor" (p. 4). Moore (1989) believes that S-S interaction is an effective means and cause of learning. Lee and Dashew, (2011) assert that on moving from the traditional FTF to a hybrid course format, instructors need to change learning from teacher centered to student centered in order to meet the expectations of their class. In a study that investigates whether students believe that a hybrid course, in comparison to traditional FTF classes, has improved their learning experience, Olson (2003) concludes that students believe that the hybrid course model highly improved their learning experience. This was, particularly, by means of the increased amount and speed of feedback between students and students and instructor as well. Garnham and Kaleta (2002) indicate that instructors of hybrid courses reported that this new pedagogical form allowed them to carry out and accomplish the goals of their courses because they noted an increased communication and interaction among their learners. Students appeared to be more engaged in learning activities and will therefore seek out more peer assistance.

However, other studies have reported a negative impact of hybrid courses on S-S interaction. In a 2007 study investigating negative and positive learning experiences of hybrid class students, El Mansour et al., concluded that one of the chief disadvantages of the hybrid course is isolation, or "feeling lost in a cyberspace" (p. 1). Delayed responses from fellow students to communications were one of the
reasons for that feeling. In a another study conducted by Jackson and Helms (2008) to examine students' perceptions of the quality of interaction in hybrid courses, students reported that they could not get to know each other nor work in groups as they normally do in traditional FTF classrooms. In his research about patterns of communication in both hybrid and fully online courses, Vess (2005) declares that students reported less S-S dialogue in the online part of their hybrid course than in the FTF part. While S-S interaction in a traditional FTF class is characterized by class discussion, brainstorming, group and pair work, in an online course environment S-S interaction utilizes communication tools like forums, discussion boards and blogs. The hybrid learning mode is a mixture of both.

S-S interaction is a source of feedback and support among students, which enhances and enriches the learning environment. Having successful peer interaction in a hybrid course adds to its advantages for students. The benefits of flexibility and convenience linked with hybrid courses are multiplied by beneficial successful peer interaction and participation (Lee & Dashew, 2011). Affective predispositions, however, contribute to L2 classroom types of interaction and participation (Clément, et, al., 1994). There are three affective variables which will be discussed in this research: instrumental and integrative orientations, self-efficacy and anxiety.

**Instrumental and Integrative Orientations**

One of the major factors which relates to language learning results, is student motivation. Strongly motivated learners are more likely to become proficient in a second language. That is why the topic of motivational orientations has long been central to second language research (Lin & Warschauer, 2011). Lasagabaster (2002) asserts that two kinds of motivational orientations are usually researched: integrative and instrumental orientations. He states that integrative orientations have
interpersonal and collective bearings, as they reveal learners' inner desire to integrate with a certain language and its culture with which they wish to create closer bonds. Masgoret and Gardner (2003) assert that people who like to identify with individuals who use the other language will be more highly motivated than those who do not. Dörnyei and Clement (2001) emphasize the same idea in their study, which was conducted in Hungary. They concluded that students with integrative motivations exert more effort in learning the second language.

Zhou (1999) contends that integrative orientations, "reflect a sincere and personal interest in the people and the culture of the other ethnic group, and thus sustains the long term motivation in learning and using a second language" (p. 162). Masgoret and Gardner (2003) agree with Zhou and explain that students, who desire to learn a language because they aim to socialize, interact and make friends with speakers of that language show more openness to learning it. This is in direct contrast to the attitudes of those who do not have these reasons. Lamb (2004) conducted a study investigating the motivations of Indonesian learners when they started studying English between 11 and 12 years old. In this study, he concluded that, because the English language's association with a specific culture is weakened, the learners' desire to connect and integrate loses that constructive power which can push and promote the process of learning. The notion of integrativeness is not restricted to an interest in integrating with a certain language group, but may simply extend to include openness to all language groups (Masgoret & Gardner 2003). Gardner, (1985a) emphasizes the same implication, as he states that integrative motivations could be reflected to a language learner in a broad openness to learning foreign languages in general.

Instrumental motivations are prompted by utilitarian benefits (Lasagabaster, 2002). Gardner and Lambert (1972) explain that the ultimate aim, in that case, is not
to connect with the social group, but to achieve social acknowledgment and financial benefits, or even to pass an exam. Lin and Warschauer (2011) highlight the fact that instrumental orientation relates to the prospective pragmatic advantages of L2 mastery, such as to obtain a good job or to gain qualifications. Gardner and Lambert (1972) mention that instrumentally motivated students usually achieve better scores in a second language learning situation. Nevertheless, in a study by Luckmani (1972), it is concluded that instrumental orientations may only have greater influence in some cases. On the other hand, in a study undertaken by Zhou (1999) analyzing the language motivational orientations of a minority group in China, he concluded that integrative orientation alone does not always predict second language achievement. Both instrumental and integrative orientations are working simultaneously in a second language learning context.

Norton (2002) contends that distinguishing between integrative and instrumental orientation is more effective in classroom research than in natural contexts. It is important to note that some other researchers are reluctant to make a similar distinction between integrative and instrumental orientation (Crookes & Schmidt, 1991; Gardner & MacIntyre, 1993; Dornye, 1994). Lasagabster (2002) agrees that researchers find this distinction to be obstructive and stagnant, as orientations are dynamic by nature. However, he upholds the idea which is validated in many studies; that both instrumental and integrative orientations expedite the process of language learning. In Dörnyei’s (1994) study of types of motivational orientations manifested in second language classroom situations, he states that there is a strong relationship between class participation and students' motivational orientations. Blumenfeld (1992) similarly points out that classroom activity influences students' motivations. In a study conducted by Brophy (1987) on how to motivate
students in a second language classroom, he concludes that classroom activities and participation can motivate and stimulate students. Hernández (2010) points out that there is a relationship between integrative and instrumental motivations, and students' interaction in the foreign language classroom. He also recommends using class activities that foster students' integrative and instrumental orientations in order to enhance learning.

**Self-efficacy**

Self-efficacy is a motivational element which refers to "belief in one's capabilities to organize and execute the courses of action required to producing given attainments" (Bandura, 1997, p. 3). Siegel (2000) points out that self-efficacy reflects the amount of confidence that students exhibit, while achieving a certain task. On gathering the various explanations and definitions proffered by educators and scholars, one might come to the conclusion that self-efficacy is a matter of the students believing in their own abilities. This self-belief can be crucial in carrying out a task in a learning situation. Bandura (1997) and Schunk (1991) state that learners' performance is tremendously affected by their opinions about their abilities and these beliefs could predict their performance more than their actual capabilities. Learners with high self-efficacy confidently engage themselves in the required task; hence they tend to get better scores than those with low self-efficacy, although they may have lower capabilities (Raoofi, Tan & Chan, 2012). Self-reflection is a signified ability which decides human behavior and helps individuals to evaluate, gauge and translate their behaviors, ideas and thoughts. Self-efficacy is a strong arbiter of self-reflection and therefore it significantly predicts success. Bamhardt (1997) designates characteristics of self-efficacious students as follows:
Self-efficacious learners feel confident about solving a problem because they have developed an approach to problem solving that has worked in the past. They attribute their success mainly to their own efforts and strategies, believe that their own abilities will improve as they learn more, and recognize that errors are part of learning. Students with low self-efficacy believe themselves to have inherent low ability, choose less demanding tasks and do not try hard because they believe that any effort will reveal their own lack of ability. (p. 3)

Bandura (1997) states that "there are four elements which influence creating and developing of self-efficacy beliefs: (a) mastery experience, (b) vicarious experience, (c) social persuasion, and (d) physiological states" (Raoofi, Tan & Chan, 2012, p. 61).

Students with prior experience in a task tend to have high self-efficacy; consequently previous experiences have a vital effect in enhancing self-efficacy. On the other hand, when students observe their colleagues accomplishing a task successfully, they develop positive ideas about their own abilities in relation to the same task and therefore such an experience plays an important role in increasing their feelings of self-efficacy. When learners are encouraged by their advisors, instructors or counselors, they can also develop higher levels of self-efficacy. Finally, other elements of emotional and physiological states, such as fatigue and anxiety, can seriously affect students' self-efficacy. Students with lower levels of fatigue and low anxiety while performing a task tend to feel comfortable, and recognize the learning situation as pleasing, hence their self-efficacy is enhanced (Bandura, 1997).

Students' rates of self-efficacy affect the goals they set for themselves; "those with high rates of self-efficacy set higher objectives than learners with low self-efficacy" (Tremblay and Gardner, 1995, p. 507). In this context, foreign language
instructors play an important role in determining their students' beliefs about their learning capabilities and providing those with low self-efficacy with additional encouragement. Similarly, teachers need to monitor their learners' beliefs about their self-efficacy and to either strengthen or defy these beliefs in their learners. Examining self-efficacy as an affective element that influences foreign language learning introduces the question of whether enough opportunities for the use and practice of the target language are provided to students (Gorsuch, & Taguchi, 2008). Snow, Corno and Jackson (1995) point out that, in order for students to develop feelings of self-efficacy, they ought to be exposed to abundant opportunities to interact using the target language. They also add that, if such practice is not provided in the language learning context, students’ rates of self-efficacy are not likely to improve. Pajaras (2008) states that people tend to acclimatize themselves and adjust through interaction in various contexts. Gorsuch (2009) adds that these contexts include classroom situations. Graham (2006) stresses that judgments of self-efficacy are not generated out of thin air but are enhanced and supported by actual experience within a certain context. He explains by giving an example of L2 students who use role-playing to try to learn how to buy a train ticket. These learners would have been more confident in attempting this exercise if they had previously rehearsed the scenario with their classmates.

Anxiety

Horwitz, Horwitz and Cope (1986) define anxiety as the "the subjective feeling of tension, apprehension, nervousness, and worry associated with an arousal of the autonomic nervous system" (p. 125). They state that when anxiety takes place in a language learning context, it is called a "specific anxiety reaction" to differentiate individuals who are anxious in general situations from those who are only anxious in
the language learning situation. Many researchers agree that language courses provoke anxiety in many students (Horwitz, Horwitz & Cope, 1986; MacIntyre & Gardner, 1989). Educators are concerned about the levels of anxiety that exist in language classes (Cope- Powell, 1991; Muchnick & Wolfe, 1982). Campbell and Ortiz (1991) state that, about half of language students suffer from hampering levels of language anxiety. McIntyre and Gardner (1991c) mention that a great deal of literature has shown that anxiety has an essential effect on the language learning context. McIntyre (1995) defines language anxiety as "anxiety related to learning a foreign language and to engaging in L2 learning activities. It is said to involve emotional arousal and negative self-related cognition that would interfere with effective language learning" (Pichette, 2009, P. 78). Language anxiety is particularly important in relation to beginner students' language learning, as language related anxiety proved to be at higher levels for freshmen than for older students. (Frantzen & Magnan, 2005; Gardner & MacIntyre, 1993; Liu, 2006)

Horwitz, Horwitz, and Cope (1986) declare that there are three types of foreign language anxiety: "fear of negative evaluation, test anxiety and communication anxiety" (Liu &Jackson, 2008, P.72). They define communication anxiety as "a type of shyness characterized by fear of or anxiety about communicating with people" (p. 127). Individuals who are anxious while speaking to groups tend to have difficulty talking in foreign language classes. In foreign language contexts, they often have no control over the communicative situation and are consistently monitored by other peers and their instructor (Liu & Jackson, 2008). Research assumes that language tasks impair anxious students' learning process and make them hesitant to take part in class interaction (Pichette, 2009). In a study conducted by Liu and Jackson (2008) on Chinese students' language anxiety and their fear of
communication, it is concluded that more than twenty five percent of the students were anxious in their English language classroom. They were afraid to be thought less of or found lacking by their teachers and peers. Burgoon (1976) points out that causes of anxiety connected to class communication stem from low self-esteem, introversion, apprehension, and a dearth of communicative competence. McCrosky (1977) explains that the level of students' anxiety is connected to "real or anticipated communication with another person or persons" (Liu and Jackson 2008, P. 78). He also adds that learners who suffer from high levels of communication, language apprehension "withdraw from and seek to avoid communication when possible" (p. 79). Liu and Jackson (2008) agree and explain that some students do not take part in classroom interaction due to anxiety. They generally do not like to take the risk of interacting with their instructor or their fellow students. More than a third of those students declined to interact, in order to avoid negative evaluation.
Chapter 3

Methodology

This chapter presents the methodology utilized in this qualitative, descriptive case study. This investigation aims to scrutinize students' perceptions of interaction in a hybrid Arabic as a foreign language course, in light of their instrumental and integrative orientations, self-efficacy and anxiety. The purpose of the study will be reiterated; its design, sample and population, procedures and instruments of data collection and analysis will be illustrated.

As researchers began to shift their interest from totally online classes to classes that depend on aspects of both online and FTF courses, many studies were conducted on the topic of hybrid courses (e.g. Johnson et al., 2000; Lage, Platt & Treglia, 2000; Chamberlin, 2001; Leh, 2002; Wilson, 2003; Toth, Foulger & Amrein-Beardsley, 2008). With this change of focus, investigations of hybrid courses began to discuss many of the questions that once primarily concerned those investigating online education. In particular, questions arose regarding topics such as students' perceptions of their performance, teacher competency and pedagogical implications (e.g. Leh, 2000; Brown & Liedholm, 2002; Lage, Platt & Treglia, 2000; Wilson, 2008). Nonetheless students' perceptions of interaction in foreign language hybrid courses have not yet been sufficiently researched. Specifically, interactions in hybrid courses that teach Arabic as a foreign language have not been investigated before. Students' perceptions will be examined in light of their instrumental and integrative orientations, self-efficacy and anxiety.
3.1 Study Design

In order to investigate students' perceptions of interaction in this hybrid course, a qualitative, descriptive case study comprising both observation and a questionnaire was conducted. Case studies are considered to be important in social science research; for example, Flyvbjerg (2006) reports that case studies contribute to the accumulation of knowledge and support academic inquiry in the field of social science. According to Yin (2003), a case study is used when research questions are focused on how the phenomenon is taking place and when the behavior of the participants cannot be manipulated. Furthermore, he states that a descriptive type of case study "is used to describe an intervention or a phenomenon and the real-life context in which it occurred" (p. 548). The sample in the present study was comprised of 12 participants; as a result the gathered perceptions and beliefs of the students were limited, and this limitation may bias the study findings (Oppong, 2013). The problem caused by having a small number of participants could be addressed via the application of different data-collection research strategies (Tuckett, 2004). This would ensure triangulation and accordingly, three data gathering tools, of both quantitative and qualitative types, were utilized. Jick (1979) in Hussein (2009) defines triangulation as "the use of multiple methods, mainly qualitative and quantitative methods in studying the same phenomenon" (p. 3). The main basis of the concept of triangulation is that all research methods have their own weaknesses and shortcomings. Consequently, utilizing only one method to gauge a phenomenon will certainly produce either biased or limited results. Nevertheless, when two or more methods are applied in research and the findings of these methods concur, the strength of the study's findings are enhanced (Green, 1989)."Increasing the wider and deep understanding of the study phenomenon" (Olsen, 2004), is another benefit of applying
3.2 Sample and Population

This hybrid course was taught in the fall semester of 2013 at the State University of New York, in New Paltz. The study was comprised of adult students aged 18 years and above, eight females and four males, whose native language is English. The participants in this study were undergraduate students enrolled in the Elementary Arabic class. The total number of learners registered in the course was used in order to get richer and more in-depth information. The convenience sampling method, a type of purposeful sampling paradigm which is used to gather in-depth data (Perry, 2011) was utilized to recruit participants.

Perry also explains that investigators often resort to access samples from those conveniently available. Dornie (2007) also points out that students in the researcher's own academic institution are prime examples of the convenience sample paradigm. As the researcher could not interview participants for the reason stated above, the case studied in this research is the entire group of students, and not the individuals within the group.

3.3 Instruments
A. Questionnaire: Appendix A

In order to explore how students perceive interaction in the hybrid Arabic course, a questionnaire is used. Kuh (2001) explains that in higher education, most research depends upon questionnaire data. Moreover, many researchers maintain that utilizing questionnaires as a method of data collection is consistent with previous research techniques applied to gauge students' perceptions of hybrid courses (Wilson, 2008; Toth et al., 2008). Following this established practice, this research used a
questionnaire to collect data. One advantage of using questionnaires over human data collection tools, such as interviews, is that researchers can get information from multiple participants in a relatively short time. They are also economical, as they do not need a trained interviewer to administer them (Perry, 2011). On the other hand, "the main disadvantage is that questionnaires are not flexible in comparison to interviews, in that the questions cannot be modified once they have been given to the respondent, nor can the questionnaire probe the respondent for further information" (Perry, 2011, p 123). A copy of this questionnaire can be found in appendix A.

A questionnaire containing both open-ended and closed questions was used, as well as the researcher’s class observations. These instruments can be found in appendices A and B respectively. The closed part of the questionnaire is a quantitative data collection tool, while the open-ended section and the class observations are qualitative data collection instruments. Both types of tools were utilized to complement each other, as "Quantitative data and results provide a general picture and the qualitative data collection helps to refine, explain or extend the general picture" (Guillot, 2003, p. 46). The questionnaire was used in order to collect data about how students perceived interaction in their hybrid course, and why they perceived it that way, while the researcher's observation captured instances of classroom interaction in order to understand how this interaction really took place. Use of student interviews as a data collection tool would have been appropriate in this study, but because the researcher is at the same time the teacher of the class, the anonymity of the students could not be safeguarded. Therefore the researcher resorted to adding an open-ended section to the questionnaire in an attempt to compensate for not working with interviews.
This questionnaire consists of three parts. Part 1 seeks the respondents' demographic data (age and gender) in order to ensure that student ages comply with the regulations of the Human Research Ethics Board (research participants have to be above the age of 18 years old, otherwise a parental permission is required). Demographic data was not included in the process of data analysis due to the limited number of participants.

Part 2 explores students' affective variables in learning Arabic as a foreign language. It includes 14 questions, which are based on the 5-point Likert-scale and are divided into two sections, A and B. Section A investigates both instrumental and integrative orientations. It is adapted from Brown (2013), with the exception of item four, which was adapted from Schmidt, Boraie and Kassabgy (1996) and 5, which was formulated by the researcher. The questions of section B gauge students' anxiety and self-efficacy, and are adapted from Brown (2013) except for items 1, 3 and 5 which are taken from Schmidt, Boraie and Kassabgy (1996). These adaptations consist of word substitutions; namely "Japanese" to "Arabic" in Brown (2013) and "English" to "Arabic" in Schmidt, Boraie and Kassabgy (1996). Some items of both sections were chosen from Brown (2013) and Schmidt, Boraie and Kassabgy (1996) because they are part of questionnaires in those studies that aim to specifically inspect students' affective variables (instrumental and integrative orientations, anxiety and self-efficacy) in the context of second language learning.

Part 3 includes 26 items designed to explore students' perceptions about the effectiveness of interaction (both S-I and S-S) in their hybrid course. It also seeks to establish their opinions about the applied technology and how it could be developed for future courses. In this section, the first 10 questions have a 5-point, Likert-scale based answering format where students may choose only one answer from options.
which range from strongly agree to strongly disagree. The next 10 questions follow
the same answer scale, with the addition of an open ended section entitled "Please Explain". The last 6 items are exclusively open-ended, giving students much more
scope to freely express their beliefs and thoughts. All questions in Part 3 were
formulated by the researcher, except for number 12; this item was adapted from
research by Rabinovich (2009) which studies students' perceptions and experiences in
a hybrid classroom.

Perry (2011) recommends that questionnaires ought to be pilot-tested prior to
being administered to the participants. He explains that feedback from this testing
enlightens the researcher about how clearly his questionnaire is understood and
whether it is sufficiently user-friendly. This questionnaire was pilot-tested on
American students and professors from the Department of Languages, Literatures &
Cultures in the same institution in which the research was conducted. The
questionnaire was piloted in order to check its ease of comprehension. Some words
were modified accordingly and after piloting, the questionnaire was administered to
the research participants.

**B. Observation:** Appendix B

Perry (2011) states that "The use of human observers as data collectors is as
old as the research itself" (p. 116). Observation as a research tool for collecting data
has been widely utilized in classifying classroom interaction (e.g. Alexander, 2000;
and Robson (1993) assert that observation of class interaction is considered to be an
invaluable research tool. Having an observer in the classroom is not unusual, due to
current rules relating to inspection in schools, and new systems of performance
management (Smith & Hardman, 2003). Simon and Boyer (1970) add that, to
properly understand in-class interaction we must systematically observe and record the events and interactions which take place and organize the data to enable proper analysis (Smith & Hardman, 2003).

They also explain that "Through observation we can study ‘what’ interaction in the classroom looks like; by using semi-structured interviews and questionnaires we can begin to understand ‘why’ the interaction occurs as it does” (p. 41).

Observation is the best way to investigate classroom interaction; it allows us to scrutinize actual behavior first hand and not behavior as it is self-reported. Permission was obtained to record the observed lectures. The recorded classes were designed to be randomly selected (one VC session and one FTF class every 3 weeks), in order to collect data at different points of time throughout the semester. This was found to be insufficient, due to the nature of responses that students provided to the questionnaire's open-ended section. This will be explained in more detail in Chapters 4 and 5. A table displaying the observed sessions can be found in Appendix B.

In order to further understand the nature of interaction that took place in the recorded session, the types of interaction included in the grid are divided into: student-initiated instances of interaction ($S \rightarrow I$) and instructor-initiated instances of interaction ($I \rightarrow S$).

This is to study whether instances of interaction that took place were more teacher or student-initiated interaction as will be mentioned in Chapter 4 and discussed further in Chapter 5. The researcher counted the frequency and average duration of the above mentioned instances of S-I interaction. The duration of an instance of student-initiated communication with the instructor ($S \rightarrow I$) is counted starting from the second the student begins to utter their question/comment until the
instructor finishes his/her response. The same applies to instances of (I → S) interaction.

The number and average duration of the instances of S-S interaction are also documented. They are divided into two types: student-student instances of interaction (students asking/commenting on each other's responses/comments to the instructor out loud, in class) and pair/group activities requiring S-S interaction. The latter covers exchanges between students in pair or group-work, whose goal is to accomplish an assigned task. An instance of S-S interaction (type one) includes both the student's question/comment to his colleague and the latter's response. The duration of such an instance is calculated starting from the second the learner begins to initiate a comment or query to his colleague in the class until the latter finishes his response. When monitoring the second type of S-S interaction (exchanged conversations during pair/group work activities), the researcher measured a set time permitted for the whole class to take part in the pair/group activity (always a total of 10 minutes per group). She did not calculate the actual duration of S-S interaction during each pair or group activity, which could have provided a clearer picture of this type of S-S interaction. This will be discussed further, see the section detailing study limitations.

The average durations of the instances of S-I (both types) and S-S (both types) interaction were recorded in the grid. In addition, the researcher also documented observations about the quality of the technological tools available. This was to verify students' perceptions of S-I and S-S types of interaction that were indicated in their responses to both close and open-ended items of the questionnaire. Notes about students' procedure-oriented questions and comments to instructors, and details of whether or not all students actively participated in class discussions were also
recorded. This was to clarify the nature of these kinds of (S\rightarrow I) interactions (whether they were topic-oriented or procedural in nature) which would help explain students' perceptions of S\rightarrow I interaction.

3.4 Data Collection Procedures

Perry (2011) states that he agrees with other researchers (e.g., Tashakkori & Teddlie, 1998, Chapter 2) that data collection procedures are valued according to how well they provide answers to the study's research questions.

A. Questionnaire Procedures

Anonymous questionnaires were distributed to students at the beginning of December 2013, two days before the final day of classes for the fall semester. They were given one hour (the full class duration) to answer the questionnaire and fill in its open-ended section. The researcher left the class for most of the time while her students were filling out the surveys, to allow them to feel at ease and in order to minimize the researcher's effect or influence on the responses.

A cover letter was attached to each questionnaire (see Appendix A). Students were instructed to review the cover letter prior to filling out the survey, in order to have an idea about why the research was being conducted and to acquaint them with their rights as research participants. They were also provided with blank envelopes to put their surveys in upon completion. Afterwards, the students had to put these envelopes in a large manila envelope on the teacher's desk. Information regarding the students' surveys is anonymous and is safely stored with a password on the researcher's computer in her university office. This information is only accessible to the researcher, to ensure its confidentiality and anonymity.
Observation Procedure

The researcher observed 4 of her FTF classes and another 4 of her colleagues' VC classes at different points of time during the semester (one VC session and one FTF class every 3 weeks). The recorded classes were chosen at random in order to collect a general picture of S-I and S-S interaction. This gives a total of 8 non-consecutive sessions. Despite the limited number of sessions and the fact that they were not consecutive (which will be elaborated on in the study limitations section), observation of such sessions has played a pivotal role in understanding and explaining student perceptions (as will be seen in the discussion of results).

The process of observation took place in the following manner, in her FTF class; the researcher had the table ready on her desk and recorded as much information as she could. After class, she listened to the recording and completed the rest of the grid. In the VC sessions, the researcher sat in the front right-hand corner of the classroom, facing the students to guarantee a wider view of the entire class. She could also see the VC instructor's video feed on the screen, located behind the students. The same grid was used and instances of interaction noted down. After class, the researcher again listened to the recordings and filled in anything she might have missed.

3.5 Data Analysis Procedures

Upon completion of the data collection period, the data analysis phase begins. Data should be analyzed in a manner consistent with the process of its collection (Creswell, 2007). He maintains that data analysis should begin with the data management. The researcher quantitatively analyzed the closed-response section of the questionnaire, in order to trace students' perceptions of S-I, S-S interaction, motivational orientations, anxiety and self-efficacy while learning Arabic on this course. Its open-ended component and observation data was thematically analyzed;
themes always emerge from repeated reading. Ruben and Ruben (1995) state that the thematic data analysis technique is effective because researchers read data, find and mark underlined ideas, align similar information, gather topics, and then link different thoughts and themes to each other. During this data analysis process, the themes which emerge are assembled, combined and triangulated in order to reach accurate findings and conclusions. Triangulation in data analysis helps ensure the research findings correspond with each other, and consequently the results of the study are strengthened and enhanced (Green, 1989).

3.6 Ethical Procedures

Compliance with HREB regulations is mandatory in order to ensure the ethical rights and safety of any human participants. As this study was conducted with human subjects, an approval from the Human Research Ethics Board (Protocol# 2013-119) was obtained. As per the HREB instructions and rules, the required forms and application papers were completed. Before collecting data, students were informed of the purpose of the study and their rights as research subjects.
Chapter 4

Results

The purpose of this chapter is to describe beginner students' perceptions of S-I and S-S interaction in a hybrid course of Arabic as a foreign language. This chapter starts by attempting to establish the affective profile of the group taking part in the study, specifically their instrumental and integrative motivations, their self-efficacy and anxiety while learning Arabic on this course. In doing this, the study attempts to show that (all other factors aside) this group’s affective profile suggests that they are expected to interact proactively with each other and with their instructor. The chapter then displays the group's perceptions of S-I and S-S interaction in the hybrid course and demonstrates the researcher's observations about such interactions. The study is guided by the following research questions:

1-What are the distinguishing features of the targeted group's affective profile, particularly in regards to their instrumental and integrative motivations, self-efficacy and anxiety?

2-What are the targeted group's perceptions of S-I and S-S interaction in this hybrid Arabic as a foreign language course?

In this case study, the researcher used descriptive statistics to analyze data from the questionnaire's Likert-scale questions. Descriptive statistics use percentages and means in order to visually demonstrate data with tables, charts and graphs. Quantitative analysis yields more reliable results and more dependable conclusions (Berg, 1998).

However, as he also points out:
"Although questionnaires and quantification procedures are probably the most extensively used techniques in the social sciences, they have tended to become inhuman and reductionist. This criticism is not so much against the procedures, which certainly could enhance understanding in the social sciences, as it is against their indiscriminate application." (p. 269)

Berg (1998) further explains that many strategies of quantitative data management might be artificial, because they deal with data in a limited scope of form and shape. It is, therefore, becoming more apparent that a full understanding of social phenomena cannot depend solely upon quantitative research, even if an adequate number of subjects are available. On the other hand, as explained by Amora (2010) "qualitative research is by definition exploratory, and it is used when we don’t know what to expect, to define the problem or develop an approach to the problem." (para. 2). Additionally, qualitative techniques are flexible because they allow the utilization of inventive strategies of both data gathering and analysis (Berg, 1998).

Thus, a social researcher is advised to apply both quantitative and qualitative approaches- if financial resources are available- as they create different perspectives of the problem and often supplement each other (Amora, 2010). In light of the aforementioned information, this study depended upon the product of quantitative and qualitative analysis of Likert-scale's close-ended items, open-ended questions and class observation. In answering the research questions of this case study, the researcher converged data from both quantitative and qualitative sources in the analysis process. Baxter and Jack (2008) explain converging as follows: "Data from these multiple sources are converged in the analysis process, rather than handled individually. Each data source is one piece of the puzzle, with each piece contributing to the researcher's understanding of the whole phenomenon. This convergence adds
strength to the findings as the various strands of data are braided together to promote a greater understanding of the case." (p. 554)

A total of 12 students (the whole class) filled out a questionnaire, divided into three parts. Part 1 is a demographic section which will not be presented here, since it does not reveal any significant information relating to the study. Part 2 has two sections: A and B. Section A is designed to investigate students' motivational orientations, while Section B examines participants' anxiety levels and self-efficacy. Part 3 probes students' perceptions of S-I and S-S interaction in the course.

**Research Question 1**

1-What are the distinguishing features of the targeted group's affective profile particularly in regards to their instrumental and integrative motivations, self-efficacy and anxiety?

The researcher used students' responses to Part 2 (sections A and B) of the questionnaire to answer this research question. It is organized as follows: the results of the instrumental and integrative orientations are presented, followed by those relating to self-efficacy and, finally, by the results relating to students' anxiety about learning Arabic. The questionnaire included a 5-category Likert-scale answer format (strongly agree- agree-neutral-disagree-strongly disagree) in order to give students the chance to precisely express their perceptions. Yet, due to the small number of participants in the sample, fragmentation of their answers into the above mentioned categories made it difficult to provide meaningful figures. Accordingly, in presenting the results of this study, the strongly agree/agree and disagree/strongly disagree types of answers have been collapsed into two categories, namely agree and disagree, unless otherwise mentioned.
Part 2, Section A
Table 1 presents the number, percentages, and the means of items of Part 2, Section A of the questionnaire, which probe students' instrumental and integrative orientations.

Table 1

*Part 2, Section A of the Questionnaire: "Items of students' Instrumental and Integrative Orientations"

<table>
<thead>
<tr>
<th>Items</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Satisfy the University language requirements.</td>
<td>4 33.3</td>
<td>2 16.7</td>
<td>1 8.3</td>
<td>1 8.3</td>
<td>4 33.3</td>
<td>3.08</td>
</tr>
<tr>
<td>2. I want to participate more in the cultural group that speaks Arabic.</td>
<td>5 41.7</td>
<td>7 58.3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.42</td>
</tr>
<tr>
<td>3. Increasing my fluency in Arabic will have career benefits for me</td>
<td>6 50</td>
<td>3 25</td>
<td>3 25</td>
<td>-</td>
<td>-</td>
<td>4.25</td>
</tr>
</tbody>
</table>
### Instrumental and Integrative Orientations

Items from 1 to 5 in Table 1 represent students' motivational orientations (instrumental and integrative). Figure 1 below outlines the percentages of agreement with these items. The vertical axis represents the percentages and the horizontal axis represents the number of these items in Table 1. The same applies to Figures 2, 3, and 4.

<table>
<thead>
<tr>
<th>4. If I learn Arabic well, I will be able to help my children learn Arabic.</th>
<th>3</th>
<th>25</th>
<th>2</th>
<th>16.7</th>
<th>5</th>
<th>41.7</th>
<th>2</th>
<th>16.7</th>
<th>-</th>
<th>-</th>
<th>3.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Arabic is important to me in order for me to read the Quran.</td>
<td>3</td>
<td>25</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>7</td>
<td>58.3</td>
<td>2</td>
<td>16.7</td>
<td>2.58</td>
</tr>
</tbody>
</table>

Mean Average

| 3.56 |
An analysis of the above Figure reveals that all members of the group (100%) agreed that they learned Arabic because they desired to participate in the cultural group that speaks it (item 2). A high percentage of participants (75%) agreed that being proficient in Arabic will increase their opportunities to obtain better jobs (item 3). About half of the group (41.7%) agreed that if they can master Arabic, they would be able to help their future children to speak it (item 4). Half of the respondents (50%) also agreed that they registered for the Arabic course because they needed to satisfy the University's language requirements (item 1) and 25% of the participants agreed that they were learning Arabic in order to be able to read the Quran (item 5).

The calculated means relating to the specific Likert-scale answers are given in table 2. They are not reported in the other tables, but necessary to understand the data. Findings show that the four most influential factors in this group's motivational profile are: a desire to communicate with the cultural group (M.4.42); followed by the career
aspirations (M. 4.25); the wish to have their children speaking the language (M.3.50); and their need to fulfil the University language requirements (M.3.08)

Table 2

The Mean Scale in the Study

<table>
<thead>
<tr>
<th>Answer Category</th>
<th>Mean Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>1 - 1.79</td>
</tr>
<tr>
<td>Disagree</td>
<td>1.80 - 2.59</td>
</tr>
<tr>
<td>Neutral</td>
<td>2.60 - 3.29</td>
</tr>
<tr>
<td>Agree</td>
<td>3.30 – 4.19</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>4.20 – 5</td>
</tr>
</tbody>
</table>

Table 3 presents the number, percentages, and means of items of Part 2, Section B of the questionnaire, which probe students' anxiety and self-efficacy.
### Part 2, Section B
#### Table 3

*Part 2, Section B "Items of Students' Anxiety and Self-efficacy"

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-It embarrasses me to volunteer answers in my Arabic hybrid class.</td>
<td>1 8.3</td>
<td>2 16.7</td>
<td>1 8.3</td>
<td>6 50</td>
<td>2 16.7</td>
<td>2.50</td>
</tr>
<tr>
<td>2-I believe I will receive an excellent grade in my Arabic hybrid class.</td>
<td>2 16.7</td>
<td>5 41.7</td>
<td>5 41.7</td>
<td>- -</td>
<td>- -</td>
<td>3.75</td>
</tr>
<tr>
<td>3-I do not like to speak often in Arabic class because I am afraid that my teacher will think less of me.</td>
<td>- -</td>
<td>2 16.7</td>
<td>1 8.3</td>
<td>7 58.3</td>
<td>2 16.7</td>
<td>2.25</td>
</tr>
<tr>
<td>4-I am certain I can master the skills being taught in my Arabic class.</td>
<td>3 25</td>
<td>6 50</td>
<td>3 25</td>
<td>- -</td>
<td>- -</td>
<td>4.00</td>
</tr>
<tr>
<td>Item</td>
<td>Response</td>
<td>Mean</td>
<td>SD</td>
<td>Median</td>
<td>Mode</td>
<td>MIN</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>----------</td>
<td>------</td>
<td>----</td>
<td>--------</td>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td>5-I am afraid other students will laugh at me when I speak Arabic.</td>
<td>-</td>
<td>2</td>
<td>16.7</td>
<td>2</td>
<td>16.7</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>2</td>
<td>16.7</td>
<td>2</td>
<td>16.7</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>16.7</td>
<td>2</td>
<td>16.7</td>
<td>2</td>
<td>16.7</td>
</tr>
<tr>
<td>6-I am worried about my ability to do well in my Arabic class.</td>
<td>-</td>
<td>2</td>
<td>16.7</td>
<td>2</td>
<td>16.7</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>2</td>
<td>16.7</td>
<td>2</td>
<td>16.7</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>16.7</td>
<td>2</td>
<td>16.7</td>
<td>2</td>
<td>16.7</td>
</tr>
<tr>
<td>7-I prefer to sit and listen rather than being asked to speak in Arabic class.</td>
<td>-</td>
<td>1</td>
<td>8.3</td>
<td>6</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>1</td>
<td>8.3</td>
<td>6</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>8.3</td>
<td>6</td>
<td>50</td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>8-I enjoy using Arabic outside of class whenever I have a chance.</td>
<td>3</td>
<td>25</td>
<td>7</td>
<td>58.3</td>
<td>2</td>
<td>16.7</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>16.7</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9-Learning Arabic is a challenge that I enjoy.</td>
<td>8</td>
<td>66.7</td>
<td>4</td>
<td>33.3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>33.3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Anxiety**

Items 1, 3, 5 and 7 in table 3 attempt to detect students' learning anxiety. Figure 2 displays percentages of agreement expressed in the responses to these items.
An analysis of the above graph shows that 25% of students agreed that they were embarrassed to volunteer answers in the target language (item 1). A low percentage (16.7%) of respondents agreed that they did not like to speak in class, because they were afraid that their teacher would think less of them (item 3). Furthermore, 16.7% of the sample agreed that they were afraid that other students would laugh at them when they speak Arabic (item 5). These findings were verified in the results of the class observations. The majority of students were observed to openly answer questions. 8.3% of the sample agreed that they preferred to sit and listen, rather than being asked to speak in Arabic (item 7). This finding is verified in the class observations, as few members of the group were observed to refrain from speaking Arabic throughout the hybrid course sessions and lectures. These results indicate that most of the students were not worried about using the target language, while only a few of them feel nervous about speaking Arabic in class.
An increase in the mean indicated an increase in anxiety, and vice versa.

According to the mean scale used in this study (see Table 2), the calculated means of anxiety items presented in Table 3 show the most influential factors which increase students' feelings of anxiety. These are: volunteering answers in the Arabic hybrid class (M. 2.50); being asked to speak in Arabic (they prefer to sit and listen) (M. 2.50); being laughed at by other students when they speak Arabic (M. 2.33); and speaking often in Arabic in class because they think that the teacher will judge or think less of them (M. 2.25)

**Self-efficacy**

Items 2, 4, 6, 8, and 9 in Table 3 represent students' self-efficacy. Figure 3 outlines percentages of agreement associated with those items.

**Figure 3**

*Percentages of Agreement to Self-efficacy Items*

The percentages of self-efficacy items presented in figure 3 show that 58.4% of the group believed that they would receive an excellent grade in their Arabic hybrid class (item 2). A high percentage (75%) felt certain that they could master the skills
being taught in the Arabic course (item 4). A small number of respondents (16.7%) were worried about their ability to do well in their Arabic lessons (items 6). However a high number of them (83.3%) agreed that they enjoy using Arabic outside of class whenever they have the chance (item 8). An Analysis of the open-ended section verified this result and revealed that most of the respondents commented that they loved to converse with each other in Arabic outside of class. The above figure also shows that 100% of the group found learning Arabic to be a challenge that they enjoy (item 9).

According to the mean scale used (see Table 2), the calculated means of self-efficacy items presented in Table 3 show prominent indicators which display learners' feelings of self-efficacy. Namely, the following statements: learning Arabic is a challenge they enjoy (M. 4.67); they enjoy using Arabic outside of class whenever they have a chance (M. 4.08); they are certain they can master the skills being taught in their Arabic class (M. 4.00); and they believe they will receive an excellent grade in their Arabic hybrid class (M. 3.75).

The results of Part 2, Sections A & B, of the questionnaire indicate that this group of students are motivated, self-efficacious and have confidence in their abilities to learn and master the target language.

Research Question 2:

2-What are the targeted group's perceptions of S-I and S-S interaction in this hybrid course of Arabic as a foreign language?

The answer to this research question is divided into two sections: A and B. This is because two types of tools have been utilized to gather data. The close-ended items of the questionnaire have been used as a quantitative tool and the open-ended questions and the researcher's class observations have been employed as a qualitative instrument.
Section A: The Quantitative Tool

The close-ended items in Part 3 of the questionnaire are designed to probe students' perceptions of S-I and S-S interaction in their hybrid Arabic course, using statements modelled on the Likert-scale. Table 4 shows the number, percentages, and means of students' responses which reveal their perceptions of S-I and S-S interaction.

Table 4

Part 3 of the Questionnaire: "Items that Probe Students' Perceptions of S-I and S-S Interaction"

<table>
<thead>
<tr>
<th>Items</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-hybrid class lectures were conducive for asking questions.</td>
<td>1 8.3</td>
<td>2 16.7</td>
<td>3 25</td>
<td>3 25</td>
<td>3 25</td>
<td>2.58</td>
</tr>
<tr>
<td>2-There were enough opportunities to interact with peers in this hybrid course.</td>
<td>3 25</td>
<td>7 58.3</td>
<td>1 8.3</td>
<td>1 8.3</td>
<td>- -</td>
<td>4.00</td>
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<tr>
<td>3-I interacted with the instructors in this hybrid course as I do in regular class settings.</td>
<td>3 25</td>
<td>4 33.3</td>
<td>1 8.3</td>
<td>3 25</td>
<td>1 8.3</td>
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<td>--------</td>
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<tr>
<td>4- I was encouraged to initiate conversation in this hybrid course.</td>
<td></td>
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<tr>
<td></td>
<td>4</td>
<td>33.3</td>
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<td>5- I interacted with my peers in this hybrid course as I do in traditional class settings.</td>
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<tr>
<td></td>
<td>3</td>
<td>25</td>
<td>3.50</td>
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</tr>
<tr>
<td>6- There were enough pair and group work tasks in this hybrid course.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>25</td>
<td>3.92</td>
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<tr>
<td>7- There were no sound problems in the VC part of this hybrid course.</td>
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</tr>
<tr>
<td></td>
<td>1</td>
<td>8.3</td>
<td>2.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8- I would recommend taking a language hybrid course with this technology to other students.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>1</td>
<td>8.3</td>
<td>2.75</td>
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<tr>
<td>9- There were enough opportunities to speak in this hybrid course.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>1</td>
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<td>3.50</td>
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<tr>
<td>10-There were no visual problems in the VC part of this hybrid course.</td>
<td>1</td>
<td>8.3</td>
<td>2</td>
<td>16.7</td>
<td>1</td>
<td>8.3</td>
</tr>
<tr>
<td>11-I feel that my questions were well addressed in this hybrid course.</td>
<td>2</td>
<td>16.7</td>
<td>4</td>
<td>33.3</td>
<td>4</td>
<td>33.3</td>
</tr>
<tr>
<td>12-Being in a hybrid course did not inhibit my class participation.</td>
<td>1</td>
<td>8.3</td>
<td>2</td>
<td>16.7</td>
<td>2</td>
<td>16.7</td>
</tr>
<tr>
<td>13-Engaging in language practice with peers in this hybrid course was helpful.</td>
<td>5</td>
<td>41.7</td>
<td>6</td>
<td>50</td>
<td>1</td>
<td>8.3</td>
</tr>
<tr>
<td>14-I received sufficient constructive feedback from instructors in this hybrid course.</td>
<td>7</td>
<td>58.3</td>
<td>4</td>
<td>33.3</td>
<td>1</td>
<td>8.3</td>
</tr>
<tr>
<td>15-I feel that the kind of feedback I received in the hybrid course was helpful.</td>
<td>5</td>
<td>41.7</td>
<td>4</td>
<td>33.3</td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>Question</td>
<td>Rating</td>
<td>Mean</td>
<td>Median</td>
<td>Mode</td>
<td>Standard Deviation</td>
<td>Confidence Interval</td>
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<tr>
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<td>--------------------</td>
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</tr>
<tr>
<td>16-Techology in this hybrid course was a barrier to my interaction with the instructor.</td>
<td>6 50</td>
<td>4 33.3</td>
<td>2 16.7</td>
<td>-</td>
<td>-</td>
<td>4.17</td>
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<tr>
<td>17-Techology in this hybrid course was a barrier to my interaction with my classmates.</td>
<td>- - 2</td>
<td>16.7</td>
<td>2 16.7</td>
<td>7 58.3</td>
<td>1 8.3</td>
<td>2.42</td>
</tr>
<tr>
<td>18-The instructors’ questions prompted my interaction in this hybrid course.</td>
<td>1 8.3  5 41.7</td>
<td>4 33.3</td>
<td>2 16.7</td>
<td>-</td>
<td>-</td>
<td>3.42</td>
</tr>
<tr>
<td>19-Hybrid class lectures allowed for a high level of student-instructor interaction.</td>
<td>5 41.7 1 8.3</td>
<td>2 16.7</td>
<td>3 25</td>
<td>1 8.3</td>
<td>3.50</td>
<td></td>
</tr>
<tr>
<td>20-I would like to take another Arabic hybrid course with this technology in the future</td>
<td>1 8.3 3 25</td>
<td>2 16.7</td>
<td>2 16.7</td>
<td>4 33.3</td>
<td>2.58</td>
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<td>Mean Average</td>
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<td></td>
<td></td>
<td></td>
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<td>3.38</td>
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</tbody>
</table>
This section is organized as follows: firstly the results relating to S-I interaction, then S-S interaction, S-I/S-S interaction, and finally technology. A number of trends and themes, which emerged from the findings of the qualitative instrument, are reported to corroborate results.

**S-I Interaction**

Items 1, 3, 4, 11, 14, 15, 18, and 19 in the above table represent students’ S-I interaction. These cover the various types of S-I interaction, as defined in Chapter 1 (see, p.9) e.g., asking questions/exchanging comments. Figure (4) exhibits the percentages of agreement to these items.

**Figure 4**

*Percentages of Agreement to Items of S-I interaction*

An analysis of the results of S-I items represented in Figure 4 reveals that only a quarter of the group (25%) agreed that this hybrid class format is conducive to asking questions (item 1). Data from class observations verified this finding, as students were observed to ask a few questions in the VC part. Results also reveal that 50% of the group felt that their instructors' questions encouraged S-I interaction (item
18). Half of the respondents (50%) also agreed that the hybrid lectures allowed for a high level of S-I interaction (item 19). Here, there is an apparent contradiction of results, namely that 50% of the students indicated that their instructors' questions prompted their interaction and that lectures led to a high level of interaction, yet only 25% perceived that the course was conducive to asking questions, which is an important form of S-I interaction. An analysis of students' answers to the open-ended questions and the teachers' observations showed that, despite teachers' attempts to involve students by asking questions (I → S), reduced levels of student interaction (S→I) were apparent. This could be attributed to technological problems. The above is verified by the fact that a high percentage of students (58.3%) reported that they were encouraged to initiate conversation (item 4). This will be discussed again in more detail in the following chapter.

A total of 7 respondents (58.3%) agreed that they interacted with the instructors in this hybrid course as they would do in regular class settings (item 3). This contradicts students' complaints in their responses to open-ended questions about the technical difficulties which hindered interaction in the VC section of the class, indicating that they would prefer to learn in traditional (i.e. FTF) classes. It would seem that students, who have responded positively to this question, have based their answers more on the FTF section of the class. This will be discussed in subsequent result sections of the study. Six respondents (50%) agreed that their questions were well addressed by their instructors (item 11). Most of the students (91.6%) agreed that they received sufficient constructive feedback from their instructors and a smaller though still significant, percentage of students (75%) believed that feedback was helpful (items 14 and 15). This seems to indicate that a clear majority of students considered the feedback received to be sufficient. A smaller, though meaningful,
number of students considered it useful. An even smaller number believed their questions were well addressed. Students' expectations that both instructors would provide them with an equal amount of feedback may be one of the reasons that led to this finding. This will be reviewed further, and in more detail, in the following chapter.

According to the mean scale used in this study (see Table 2), the calculated means of items of S-I perceptions of interaction presented in Table 4 show that the most influential factors that increased learners' perceptions of interaction in their hybrid course were: that they received sufficient constructive feedback from their instructors in this hybrid course (M. 4.50); the kind of feedback they received was helpful (M. 3.92); and that they were encouraged to initiate conversation in classes of the Arabic hybrid course (M. 3.67).

**S-S Interaction**

Items 2, 5, 6, and 13 in Table 4 represent students' S-S interaction. These cover the types of S-S interaction, as defined in Chapter 1 (see, p.9)

Figure 5 represents percentages of agreement to items of S-S interaction, where the vertical axis shows these items' numbers in Table 4 and the horizontal axis indicates their percentages.
The above figure shows that a high percentage of students (83.3%) agreed that there were enough opportunities to interact with their peers in this hybrid course (item 2). A high percentage of the respondents (83.3%) agreed that there were enough pair and group work tasks in the course sessions and a clear majority of the group (91.7%) agreed that engaging in language practice with their peers was helpful (items 6 and 13). Results also showed that 66.7% of learners stated that they interacted with their classmates as they usually do in other classes (item 5). This indicates that, when it comes to S-S interaction, a considerable number of students believed that hybrid classes are no better or worse than traditional FTF classes. This trend is verified by the analysis of the open-ended section's responses. These show that students felt being in a hybrid course did not hinder S-S interaction and that the kind of interaction among students in a hybrid environment is comparable to S-S interaction in traditional classes.

According to the mean scale used in this study (see Table 2), the calculated means of the items relating to S-S perceptions of interaction (presented in Table 4) show
that the most important factors which increased learners' perceptions of interaction 
during the hybrid course were: engaging in language practice with their peers, which 
was helpful (M. 4.33); that there were enough opportunities to interact with their peers 
(M. 4.00); and that there were enough pair and group-work tasks in the course (M. 
3.92).

**S-I/S-S Interaction**

Items 9 and 12 in Table 2 represent students' S-I and S-S interaction. These items cover certain instances of participation which could be considered both S-I and S-S interaction, according to this study's definitions of the interaction types. Student-instructor interaction (S-I) is defined as verbal interaction that takes place between the student and his instructor (or vice-versa) in class; for example asking 
questions/exchanging comments. S-S is defined as the kind of verbal interaction that takes place between one student and other student/students in class in the presence of the class teacher. For example, item 9 states that there were enough opportunities to speak in this hybrid course, which could refer to speech exchange between students and the instructor or to communication among the students.

Figure 6 represents percentages of agreement to these items. The vertical axis stands for the number of items of S-I and S-S interaction documented in Table 4 and the horizontal axis represents its percentages.
The percentages presented in the above figure reveal that 66.6% of the students agreed that there were enough opportunities to speak in this hybrid course (item 9). This finding is verified by the open-ended questions section, as students declared that they had sufficient opportunities to speak with their peers in the pair and group work. They also specified that they had chances to communicate with their instructors. As previously mentioned, such opportunities were hampered by technological problems as will be discussed in more detail later. In item 12, a quarter of the subjects participating in this study (25%) agreed that the nature of hybrid instruction did not inhibit their class participation. The same item also indicates that 58.3% disagreed/strongly disagreed with this statement (the rest were neutral). This contradicts the above result (item 9) where 66.6% pointed out that they had enough opportunities to speak in the course. The same item also indicates that a percentage of 16.6% of students strongly disagreed/disagreed with this statement and the rest were neutral. Technical issues
could be one reason for this contradiction, along with other causes which will be dealt with in the next chapter.

According to the mean scale used in this study (see Table 2), the means calculated from items of S-I/S-S perceptions of interaction (presented in Table 4) show that the most significant factor which increased learners’ perceptions of their S-I/S-S interaction was that there were enough opportunities to speak in this hybrid course (M. 3.50).

**Technology**

Items 7, 8, 10, 16, 17, and 20 in Table 4 represent items that detect students’ perceptions of the effect of the technology used during the course on S-I & S-S interaction. Figure 7 represents percentages of students' agreement with the items which were geared towards detecting such perceptions. The horizontal axis stands for the number of the items in Table 4 and the vertical axis represents its agreement percentages.

**Figure 7**

*Percentages of Agreement to Technology Items*
The above graph shows that the technological tools utilized in the VC sessions were not appreciated by students on this course. A percentage of the sample (83.3%) believed that technology was the main barrier that reduced S-I interaction (item 16). This finding is a recurrent main theme in students' responses to the following open-ended questions and the researcher's observations. In the Likert-scale section of the questionnaire, a quarter of the group (25%) agreed that there were neither audio nor visual problems during the course sessions which again indicate that (excluding the neutral percentages) 58.3% and 66.3% of students noticed the existence of audio-visual problems (item 7 and 10). This result is substantiated by the analysis of the group's open-ended and observational data, in which audio and visual issues greatly hindered S-I interaction in the VC part of the course. Alternatively, only 16.7% of the sample perceived that technological tools impeded S-S interaction which indicates that - excluding the neutral percentage, a majority of students (67.6%) thought that such tools did not impede S-S interaction (item 17). This theme also emerged while analysing the open-ended questions, as students indicated that technology did not hinder interaction with their peers.

Results also showed that one third (33%) of respondents agreed that they would like to take another course using this technology (item 20). A small percentage of the group (16.6%) agreed that they would recommend this Arabic hybrid course to a friend or a colleague (item 8). This trend is confirmed by the analysis of the open-ended question data in the ensuing section. This contradiction of why they would repeat the experience themselves, but not recommend this course to others, results from the fact that their university only offers hybrid courses for learning Arabic. This means that, if the students wished to continue studying Arabic at their current university, they did not
have much choice except to take the course as is. This will be discussed in the next chapter in more detail.

According to the mean scale used in this study (see Table 2), the calculated means of items relating to students' perceptions of technology (presented in Table 4) show that the most influential factors which affected learners' perceptions of the technological tools used in their hybrid course were: technology that was a barrier to learners' interaction (M. 4.17); and that there were both visual problems (M. 2.50), and sound issues in the VC part of the course (M2. 58).

To sum up, these findings indicate that students perceived that there was not enough S-I interaction due to technical issues, which might have hindered their S-I participation. On the other hand, these technological problems did not impede or even reduce their S-S interaction opportunities.

**Section B: The Qualitative Tool**

The qualitative tool used in this study is comprised of two parts: class observations, and 16 open-ended questions, out of the 26 questions on the questionnaire. The former (16 questions) includes 10 Likert-scale questions which are followed by requests to elaborate (11:20), and 10 exclusively open-ended questions (21:26). The latter is an observation of 4 FTF and 4 VC classes. As previously explained in Chapter 3, the hybrid classes (FTF and VC sessions) were designed to be randomly observed (one FTF and one VC session every 3 weeks). This was in order to gain wide scope of instances of interaction between the students and their instructors and among learners themselves. As will be explained later, after distributing the questionnaire to the learners at the end of the semester, their responses showed that they differentiated and compared between the two parts of the course,
without being asked to do so. This data of randomly chosen observed classes is not enough to support this comparison (see study limitations.)

This section starts by presenting thematic findings of the open-ended questions (as presented in Table 5). The results of the number and average duration of observed S-I instances of interaction (S→I and I→S) in FTF and VC sections then follows. After that, the number and average duration of S-S instances of interaction in FTF & VC sections are presented and the results of "other observations" are finally introduced.

Trends from the quantitative part of the questionnaire are also referred to, in order to verify results of the qualitative analysis.

**Thematic Results from the Open-ended Questions**

In their responses to the open-ended questions, students differentiated between the VC sessions and their FTF classes, which was not planned for and was not the goal of this study. This, however, does highlight the seemingly confused results which appear in the close-ended questionnaire section, as will be discussed more fully in the next chapter.

On repeated reading of students' responses to the questionnaire's open-ended questions (see Appendix A), several themes emerged. The predominant themes are shown in Table 5.
Table 5

Themes of the Open-ended Questions

<table>
<thead>
<tr>
<th>Theme Number</th>
<th>Theme Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme 1</td>
<td>Difficulty of participation in the VC sessions.</td>
</tr>
<tr>
<td>Theme 2</td>
<td>Technological challenges</td>
</tr>
<tr>
<td>Them 3</td>
<td>S-S interaction</td>
</tr>
<tr>
<td>Them 4</td>
<td>Views and suggestions</td>
</tr>
</tbody>
</table>

These themes are represented in Figure 8. The vertical axis represents number of students whose answers referred to the theme, and the horizontal axis shows number of themes, as they appear in the previous table.
Figure 8

Themes of the Open-ended Questions

<table>
<thead>
<tr>
<th>Theme 1</th>
<th>Theme2</th>
<th>Theme3</th>
<th>Theme4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Students</td>
<td>Number of Themes</td>
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<td></td>
</tr>
<tr>
<td>12</td>
<td>10</td>
<td>10</td>
<td>8</td>
</tr>
</tbody>
</table>

**Theme 1: Difficulty of Participation in the VC sessions (S-I interaction).**

As mentioned earlier, most students compared the VC sessions to the FTF lectures even though they were not asked to do this comparison. Participants commented that they did not have as much participation or interaction in their VC classes as they did in the FTF lectures, with remarks such as:

- "I did not participate in classes of VC as I did in classes of FTF."

- "It was difficult to participate in VC."

- "There was almost no interaction in the VC sessions, however, there was a lot of S-I interaction in FTF."

- "I participated and interacted more in FTF than in VC."

- "Classes of FTF allowed for a high level of S-I interaction, classes of VC did not."
- "We mostly interacted in FTF classes."

They pointed out that both the instructors for both VC and FTF parts were efficient and attributed the difficulty of S-I interaction in the VC sessions to the technological problems created by the tools that were used. For example, they pointed out that the microphone was over-sensitive, and thus, had to be muted most of the time, to avoid transmitting all of the background noises from the classroom to the VC teacher. This technological issue prevented them from easily communicating with the VC instructor. This indicates that VC interaction was regarded differently than FTF, which will be further discussed next chapter.

Respondents' statements also indicated that they did not have as much feedback in the VC sessions because its instructor was in a distant place. Emails were the only way of communication with the instructor of this section of class. This is illustrated in the following remarks:
- "We did not get much feedback from him because he was in another state."
- "Feedback was only via occasional emails; communication through emails is not helpful in a language course."

On the other hand, participants declared that their FTF office hours were helpful. Comments such as these were typical:
- "Office hours were helpful."
- "I believe whatever I did not understand; the FTF instructor went over it with me during office hours."
- "I received sufficient feedback only in FTF office hours."
- "Office hour meetings always made the content clear."
- "One to one sessions were very helpful."
The different students' perceptions of S-I interaction in the two sections of the course could be attributed to students having misconceptions about the role of each instructor. This will be illustrated in more detail in Chapter 5.

About half of the group (50%) commented in their answers to the open-ended questions that it was not easy to engage with instructors in the VC section of the course, nor were there enough opportunities to do so. They specified that they could ask, be asked and answer questions in FTF, but they did not have many of these opportunities in the VC sections. They attributed this difficulty to technological problems. The following comments are representative:

- "There was always a technology barrier, so it was too complicated to answer questions."

- "It was too much of a hassle to ask over the webcam."

- "It was easier to ask, answer or comment in the FTF."

The results of class observation and close-ended questions verified the above, as only 25% of respondents agreed that the course was conducive to asking questions. This variation between VC and FTF regarding S-I interaction will be examined in more details in the next chapter.

Answers to the open-ended questions also showed that participants indicated that they often postponed their questions to the next day - when they had the FTF lecture - due to sound issues mentioned earlier. Classroom observations reveal that, indeed, they asked questions during the subsequent class. This indicates that, despite the fact that participants were not comfortable dealing with the technology used in this class and that it hindered their S-I interaction, they were motivated enough to postpone their interaction to the following day. They were eager to learn the answers.
to their questions and kept them in mind until they met with the FTF instructor the next day.

Learners' comments also pointed out that students perceived that the instructors' repeat-after-me activities were appropriate to the course material and successfully prompted S-I interaction. Comments such as these were typically:
- "Their back and forth, repeat after me questions usually prompted my interaction."
- "This type of questions was productive and appropriate."

Observation of classes also validates the result that instructors of the course used many ‘repeat-after-me’ activities. Figures 11 and 12 in the observation section present the number of questions/comments from both instructors in VC and FTF sections of the hybrid course, including the above mentioned type of questions. Results from the close-ended part of the questionnaire also verify this result, as 50% of students indicated that the instructors' questions prompted their interaction. This could very well be the result of 'repeat after me' activities, which gave students a sense that a form of I→S interaction was taking place.

Two students however described interaction in the VC sessions as frustrating and attributed this frustration to miscommunication, as suggested by the following comments:
- "There was not as much interaction with VC instructor. Those interactions were frustrating because of miscommunication."
- "Although I got frustrated, I could see that other students were as frustrated as me."

However, this Arabic hybrid mode of instruction had positive aspects, as one student mentioned that the four time meetings of the course allowed for more S-I interaction opportunities:
"Seeing one or both of my professors four days a week resulted in a lot of S-I interaction."

**Theme 2: Technological Challenges (and their Effect on S-I and S-S Interaction)**

A highly recurrent theme that appeared in 10 of the students' responses is that they regarded technological tools used in the VC part of the course as barriers to S-I interaction. Participants explained that there were persistent technological challenges that greatly impeded their interaction with the VC instructor. The first and most distinctive issue in this course was the sound problems. This is explained in the following responses:

- "The sound of the VC was sometimes difficult to hear."
- "Waiting constantly for muting, un-muting, and for screens to work made me distracted and sometimes agitated."
- "There were often issues with sound of the visual media."

In the VC sessions, there was also a problem with the lighting which made it difficult for the students to see the material on the screen clearly.

- "I could not see a lot of the material that came on over the VC because the lighting made it difficult."

In addition, the computers froze several times, as reported by one student who commented:

- "The technology was constantly an issue, the computer froze several times."

Students pointed out that the sound issues of muting and un-muting the microphone in the VC part of the course reduced the chances of asking and answering questions. Three participants noted:

- "Our microphone was muted most of the time and he asked us few questions."
"Most of the time the microphone was on mute and it was a hassle to turn the microphone off, raise our hand, get his attention, and finally ask the question. Logistically, it would have been much easier if he was actually there."

"Professor of the VC asked few questions."

Data of class observation contradicts the above statement and proves that the VC instructor asked many questions as illustrated in Figure 12. This contradiction could be attributed to the kind of questions initiated by the VC instructor (due to his designed role in this hybrid course). This point will be expanded upon in Chapter 5.

One student perceived that these technological issues made answering questions in the VC section rather complicated. It was also time consuming. This is explained in the following comment:

"There was a technology barrier, so answering his questions were to put thumbs or hands up, or shout answers, which made the class confusing as everyone shouts and takes time to mute and un-mute."

Furthermore, students indicated that technological problems reduced learning effectiveness, as 4 participants commented:

"I did not like being taught over a monitor because I feel like it limited my learning capabilities."

"I feel like I am able to learn more without the distraction of the camera."

"Both professors were good but technology hindered productivity and overall comprehension."

"It was not productive to learn a language from miles away."

Correspondingly, students perceived that the technology tools used wasted time as 3 respondents declared:
- "Technology wasted too much time and makes everything a lot more difficult than it has to be."
- "Technology in the time limit (one hour) was wasted."
- "There were often issues with sound of the visual media. This definitely wasted time."

On the positive side, learners' statements also pointed out that there was a continuous utilization of online resources in the course, which benefited them in learning the target language:
- "Constant use of visuals and online sources was useful."

Seven students in the group said that they would probably not actively seek out a class that meets via webcam, but they would not be deterred by it either. Some of the students pointed out that they would register in another hybrid course, but only because this was the only offered form of Arabic classes available. Remarks such as these indicate that some students are highly motivated to learn the target language.

This result concurs with the aforementioned quantitative component, in which 100% of the group showed features of integrative motivation in relation to learning the target language. The following remarks confirm this result:
- "I would love to take this course again, however, without the voice chat. The voice chat does not offer anything to students."
- "I would like to learn more Arabic in the future, I will probably not actively seek out a class that meets via webcam, but I would not be deterred from it either."
- "I would prefer to take a standard class, but if there were no other option, then I would take a hybrid course again."
- "I would take it again because I enjoy learning Arabic not because I enjoyed the hybrid course itself."
Theme 3: S-S Interaction

Students in this study reported that there were opportunities of S-S interaction in this hybrid course. Remarks such as these are representative:

- "My classmates were easy to talk to."
- "It was helpful to work with peers because we could fix each other's mistakes."
- "I was able to communicate effectively with my classmates."

A considerable number of group (9 out of 12) commented that technology in this hybrid course was not a barrier to S-S interaction. The following comments verify this result:

- "The technology did not affect my interaction with peers."
- "There were segments of class time apart from technology in which we students were able to openly discuss."
- "The technology did not affect me much in learning with my classmates."

They indicated that they could have effective communication with their peers, as their classmates were friendly and open to conversation and discussions. They cooperated with each other and this cooperation resulted in a better understanding of the course material. Two participants attributed having strong peer-participation to confusion over the technical problems, which motivated them to cooperate with each other, in order to understand what seemed unclear. The following comments demonstrate this:

- "It brought us together because we had to converse to understand."
- "Our confusion over the web cam gave us something to bond over. It was the first thing we talked about with most of my classmates."
This finding verifies the previously mentioned conclusion from the students' affective profile, that this group was motivated. They were so motivated that issues of technology did not discourage them, but stimulated them to participate more with each other in order to learn the target language. Students perceived that engaging in language practice with their peers was helpful.

Students' answers to the open ended questions also indicated that they were both motivated and self-efficacious in learning the target language. A clear majority of this group (10 out of 12 respondents) commented that they enjoyed using Arabic inside and outside of class, whenever they had a chance. Some students remarked:

- "It was fun to converse with each other in Arabic."
- "I had fun getting to know the people in my class; we often greet each other in Arabic outside of class."
- "I enjoyed speaking Arabic with my classmates."
- "I had fun getting to know the people in my class."
- "We often greet each other in Arabic outside of class."

This confirms that a considerable number of participants were self-efficacious and highly motivated to use the target language.

Students' comments also point out that they perceived that there were enough pair and group work tasks that they liked in this hybrid course, and that they worked in these groups as actively as they do in any other language course:

- "It helped us all to better grasp the language by engaging in conversation in Arabic with one another."
- "I was able to learn from my peers."
- "I really like group exercises, they improve my skills."
- "It was helpful to work with peers."
This finding is confirmed in the above mentioned quantitative results, as 83.3% agreed that there were enough pair and group work tasks in this hybrid course. They said that they enjoyed helping each other through pair and group work. Games and exercises applied in the course helped in developing students' language skills. One participant posited that:

-"I really like game exercises, they improve my speaking skills."

Furthermore, some students agreed that they interacted in this Arabic hybrid course as if they were in a normal class setting. One participant stated:

-"I interacted with my peers as if this was any other class."

**Theme 4: Views and Suggestions**

Students considered application of the hybrid instruction method to be more appropriate for science and humanities course, than for language courses. This is explained in the following remarks:

-"The standard classroom setting would have been more appropriate in my opinion, especially since this is a language course that includes conversation."

- "The hybrid course is an interesting concept that would apply well to lecture style classes in sciences and humanities, but unfortunately not to languages."

Some students clarified that they prefer to learn the language in a standard class, taught by one instructor. A respondent indicated:

- "I just do not like it because I prefer to be taught by a physical instructor actually standing in front of me."

- "Personally, I prefer FTF".

- "I prefer a course with only one teacher and for that teacher to be physically here."
- "Logistically it would have been easier to interact if he was actually here."

Students proposed some suggestions though in order to ameliorate the hybrid class mode of instruction. Some of these suggestions were:

- "Make sure that the lightning over the screen could be seen by all the students."
- "I would suggest a better way to show the professor's computer than pointing a camera at it. It was difficult to read images on the screen."
- "I would also suggest using a less sensitive microphone so he would not have to mute us and we could interact with him more."
- "I suggest better quality technology that will not freeze up all the time."

**Class Observation**
As pointed out in Chapter 3, where study procedures were described, the researcher attempted to use observation of S-S + S-I interaction to better understand its nature and the mentioned student perceptions of it. FTF and VC classes were observed by the researcher, who was also the FTF class teacher, and notes of students' interaction were taken using a grid in which instances of S-S and S-I interaction were recorded (see Appendix B). Permission to record sessions was provided by the Human Research Ethics Board of the institution where the research took place (HREB approval, Protocol# 2013-119). During the observation of classes, the researcher had the grid on her desk and recorded as much as she could. After each observed class was finished, she listened to the recording and completed writing down anything she might have missed relating to instances of the students' interaction. In addition to the grid, the researcher wrote notes concerning the quality of technological tools used. The duration of instances of S-I and S-S interaction was also documented because it gave a much fuller picture of the nature of interactions in each session. It is expected
that active S-S and/or S-I interaction would be marked by high frequencies and longer
durations of interaction. Thus, a high number of short instances of S-I interaction may
not alone indicate a higher level of interaction, compared to fewer but longer
instances of interaction, and vice versa. When pair and group-work was observed as a
form of S-S interaction, the time permitted for each activity was measured, but not the
actual duration of S-S interactions during each pair or group activity. This is one of
the study limitations which will be acknowledged in the following chapter. Notes
about students' procedure-oriented questions/comments to instructors and whether all
students actively participated were also recorded. It has to be noted that-as stated in
Chapter 3- the recorded FTF and VC classes were randomly chosen, therefore the
recorded VC sessions are not directly related to the recorded FTF lectures.
Consequently, in presenting results and during discussion of the recorded classes, VC
sessions are numbered from 1 to 4 and FTF classes from 5 to 8. This will also be
mentioned when discussing study limitations.

**Number and Average Duration of S-I Instances of Interaction(S→I
and I→S) in FTF and VC Sections of the Course**

**S→I Interaction**

Figures 9 and 10 present the number of instances of interaction initiated by
students and directed to instructors, in VC and FTF classes respectively. In both
figures, the horizontal axis exemplifies the lecture numbers and the vertical axis
represents the number of student-initiated instances of interaction (blue column) and
the average duration of each (red column).
Figure 9

Number and Average Duration of Student-initiated Instances of Interaction with the VC Instructor

Figure 10

Number and Average Duration of Student-initiated Instances of Interaction with the FTF Instructor
In Figure 9, data from VC sessions 1, 2, 3 and 4 indicating number of student-initiated instances of interaction is presented. It shows that the number of instances were 8 (session 1), 8 (session 2), 4 (session 3) and 6 (session 4). The average duration of the interactions, including students' questions/comments to the instructor and his replies, were 19, 96.5, 195, and 97 seconds respectively.

Alternatively, in figure 10, the number of student-initiated instances of interaction (students' questions/comments to instructor and her responses/comments) in FTF lectures 5, 6, 7, and 8 are 12, 14, 11 and 12 with average durations of 31, 26, 22, and 39 seconds respectively. The total instances of S→I interaction are 49 in FTF lectures and 26 in VC classes. This indicates that the number of student-initiated questions/comments to the instructor in the VC sessions is comparatively lower than in FTF. Yet, it also shows that the average duration in some VC classes were longer than in FTF lectures. This, however, does not necessarily indicate a contradiction between students' perceptions and researcher's observations, especially in connection with learners' responses to the open-ended section of the questionnaire where they mentioned that they had difficulty interacting with the VC instructor. A study of the nature of students' questions reveals that longer S→I questions were mostly regarding class procedure, rather than content-oriented questions. This might have given students the impression that this is not ‘real interaction’. This will also be further explored in Chapter 5.

I→S Interaction

Figures 11 and 12 present the number of instances of interaction initiated by instructors and directed to students, in VC and FTF classes respectively. In both figures, the horizontal axis stands for lecture numbers and the vertical axis presents
the number of instructor-initiated instances of interaction (blue column) and average duration of each (red column)

**Figure 11**

*Number and Average Duration of VC Instructor-initiated Instances of Interaction*

![Graph showing number and average duration of instructor-initiated instances of interaction VC]
These two figures reflect that the number of instructor-initiated instances of interaction (I→S) in VC sessions 1, 2, 3, and 4 is 20, 35, 9, 25 questions / comments respectively, with average durations of 9, 9, 10, and 10 seconds. The number of instructor-initiated instances of interaction in FTF sessions 5, 6, 7, and 8 is 39, 32, 12, 47 questions / comments, with average durations of 14, 14, 36, and 12 seconds. Thus, according to figures 11 and 12, there were 89 and 130 instructor-initiated instances of interaction to students in VC and FTF classes respectively, which supports students' statements in the questionnaire's open-ended section that there were fewer instructor-student oriented instances of interaction in VC than in FTF classes. This might be ascribed to the convergent versus divergent question types that both instructors used (due to each instructor's designated role in the course). This result will be explained in more detail in the next chapter. Observation also makes it clear that some of the
instructors’ questions/comments were of the ‘repeat-after-me’ type, which is verified by learners’ comments in the open-ended part.

**Number and Average Duration of S-S Instances of Interaction in FTF & VC Sections of Course:**

In the following two diagrams, (Figures 13 and 14), the number and average duration of student-student instances of interaction (questions/ comments/responses) in VC and FTF classes is presented. In both figures, the vertical axis represents number and average duration of the questions/comments and the horizontal stands for the session numbers.

**Figure 13**

*Number and Average Duration of Student-student Instances of Interaction (VC)*

![Number and average duration of student-student instances of interaction (VC)](image)
Figure 14

**Number and Average Duration of Student-student Instances of Interaction (FTF)**

The number of student-initiated instances of S-S interaction regarding each other's answers/comments/questions in VC sessions, (presented in figure 13 and numbered 1, 2, 3, and 4) is 6, 10, 5, and 8 questions/comments. Their average durations were of 16, 13, 14, and 15 seconds respectively. The number of student-student questions/comments in the FTF lectures 5, 6, 7, and 8, are 8, 9, 7, and 8 respectively (as shown in figure 14). The average durations were 21, 12, 15 and 12 seconds respectively. This shows that the number and average duration of such instances in both VC and FTF sessions were close. This result verifies students' comments in the open-ended part of the course, where they indicated that the nature of the hybrid course did not affect their S-S interaction. This might be attributed to the students' motivation to learn the target language, as will be discussed more in details in chapter 5.
Figure 15

*Number of Pair and Group Activities Requiring S-S Interaction (VC)*

![Bar chart showing number of pair and group activities requiring S-S interaction VC.]

Figure 16

*Number of Pair and Group Activities Requiring S-S Interaction (FTF)*

![Bar chart showing number of pair and group activities requiring S-S interaction FTF.]

92
Figures 15 and 16 represent the number of activities requiring S-S interaction in VC and FTF classes, respectively. The vertical axis stands for the number of pair and group activities requiring S-S interaction, while the horizontal axis shows the session numbers. Approximate duration of all forms of pair or group work was 10 to 20 minutes; the pairs or groups of students were given approximately 7 minutes to talk/interact before responding/reporting to instructor and their peers. There were 4 activities (1 in each session) documented in the VC sessions (1, 2, 3, 4). In FTF lectures 5, 6, 7, and 8, five activities requiring S-S interaction were documented. They are divided as follows: 2 activities in the first lecture and 1 activity in each of the next three lectures. This shows that learners had almost the same number of class activities requiring S-S interaction in both VC and FTF classes (4 versus 5 in VC and FTF classes respectively). This verifies the results of both close-ended and open-ended parts of the questionnaire, which indicate that there were enough opportunities for group and pair-work which resulted in the students' perception that the hybrid nature of the course did not inhibit their S-S interaction. This can be ascribed to students' desire to learn Arabic and that they were so motivated to learn it that technological problems did not prevent them from S-S interaction.

Other Observations
An analysis of class observation revealed that both instructors actively encouraged students to speak in Arabic. For example, in one session, the teacher said that bonus grades would be given to students who answered questions in Arabic without using any English words. This observation is verified by the results of the close-ended questions, which indicated that learners were encouraged to speak in Arabic by their professors. An analysis of the observations also verified existence of technological challenges in the VC sessions, as students had indicated in their answers.
to open-ended questions in the questionnaire. For example, the microphone was so sensitive that it had to be muted so the VC teacher could not hear noise on his end. If a student had a question, he had to raise his hand, be recognized by the VC teacher who then must ask his teacher assistant to un-mute the microphone to allow the student to speak. It was also noticed that the lighting made the material presented on the screen difficult to read and there were instances of computers freezing.

**Conclusions**

The results of the current study indicate that students were motivated, self-efficacious and slightly anxious to learn the target language. This result suggests that students might have been expected to interact actively in class. It was also found that there was an apparent contradiction of results. For instance, half of the learners (50%) indicated that their instructors' questions stimulated their interaction and that there was a high level of interaction in the course classes, yet, only 25% indicated that the course was conducive to asking questions. An analysis of the participants' responses to the open-ended questions and data obtained from class observations showed that this could be attributed to the technological problems that the students encountered in the VC sessions of the course. These issues will be further discussed in Chapter 5.

Another contradiction which appeared in the results lies in the fact that a percentage of students (58.3%) perceived that their S-I interaction in this Arabic hybrid course was like that of any language standard class. This would appear to be in conflict with students' answers to the open-ended questions, where they criticized the technological tools applied in the VC sessions and described them as hindering their S-I interaction. An explanation of this contradiction might be that students who positively responded to this item based their response on the FTF part of the course. More light will be shed on this point in the next chapter. A significant percentage of students
(66.7%) perceived that they interacted with their peers in this course as they usually do in any language course. Furthermore, a clear majority indicated that that there were enough chances to interact with their peers in the course (83.3%) and that the nature of this hybrid course did not affect their participation with each other. Students’ responses to the open-ended questions emphasized this result and clarified that the nature of the hybrid course did not hinder their participation with each other. One of them pointed out that it even motivated them to cooperate with their colleagues, as will be expanded upon in the next chapter.

A majority of (91.6%) students perceived that the kind of feedback they received from their instructors was sufficient and another high percentage (75%) of them indicated that it was helpful. A smaller percentage, however, believed that their questions were well addressed in the course. This could be attributed to students’ expectations that they would get an equal amount of feedback from both their instructors. This misconception will be discussed in Chapter 5. A recurrent main theme that commonly appeared in students’ responses to open and close-ended questions and in class observations was students' complaint regarding the technology utilized in the VC classes. A clear majority of learners (83.3%) considered that technology utilized in the VC sessions limited their S-I interaction. The group's responses to the open-ended questions verified this result, as they indicated that audio-visual issues impeded their interaction with the VC instructor. Results designated that technological problems largely hindered students' interaction with their VC instructor. This led to negative perceptions about S-I interaction in their hybrid course, though they clarified in their responses to the open-ended questions that it did not hamper or negatively affect perceptions of S-S interaction. This result will be also discussed in chapter 5.
Chapter 5
Discussion and Conclusion

The objective of this chapter is to discuss the results of the current study which examines students' views of interaction in this hybrid course of Arabic as a foreign language. Their perceptions are explored in light of their instrumental and integrative orientations, anxiety and self-efficacy. The results, as presented in the previous chapter, are discussed in terms of data collected by the use of three research tools: close-ended questions, open-ended questions and researcher observations. The findings are interpreted using previous research, conducted in the field of studying students' perceptions of interaction in hybrid teaching environments. This chapter begins by discussing the results of research question one, which examines data correlating to the Likert-scale. This includes questions from Part 2 of the questionnaire, sections A and B. It highlights the main trends in students' motivational orientations (instrumental and integrative), anxiety and self-efficacy. It also attempts to detect learners' affective features, and establish that detected characteristics of interaction are not the result of the learners' affective filter. A discussion of the results of research question 2 then follows, in which both quantitative and qualitative tools are used. Results of the quantitative tools are discussed using students' responses to the close-ended Likert-scale questions from part 3 of the questionnaire. This highlights students' perceptions of S-I and S-S interaction in their hybrid class. It also attempts to explain some of the apparent conflicts in students' responses, indicated in some study results in light of their answers to open-ended questions, as well as researcher observations. Next, the researcher discusses results obtained by use of the qualitative tool which shed light on themes that emerge from the data gathered via observation of
5.1. Discussion of the Results of Research Question 1
1-What are the distinguishing features of the targeted group's affective profile particularly in regards to their instrumental and integrative motivations, self-efficacy and anxiety?
This research question focuses on data from the close-ended questions featured in part two, section A and section B of the questionnaire.

5.1. A. Section A
Instrumental and Integrative Orientations

This section discusses indications of the students' instrumental and integrative orientations which are represented by questions 1 to 5. The results of the Likert-scale components of this section indicate that students display both instrumental and integrative motivation. The most significant influences on the students' motivational profile are: the desire to communicate with the cultural group (100% agreement), followed by the desire to obtain good jobs (75% agreement), and, finally, the need to satisfy the University's language requirements (50% agreement). This means that a clear majority of students are learning the target language to satisfy both instrumental and integrative motivations. Researchers such as Lasagabaster (2002) have indicated that highly motivated learners are expected to interact more positively in L2 classes. It is therefore possible to conclude that the results of this study indicate that, all other factors withheld, members of this group are expected to participate actively in class.
Thus, any indication of lack of interaction cannot be traced back to motivational factors. It may be attributed to technical issues or to the students' misconception of how the two facets of the course work, as will be discussed further in sections 5.2. B. I. and 5.2.B.II.

5. 1. B Section B
Anxiety

Questions 1, 3, 5, and 7 of the questionnaire probe students' levels of anxiety while they are learning the target language. The results of question one indicate that a majority of the students (66.7%) said that they do not feel embarrassed to volunteer answers in their hybrid classes, while only a few of them (16.7%) indicated that they feel nervous speaking Arabic in class because they are afraid that the teacher will think less of them (item 3). The majority (66.7%) also indicated that they are not afraid that their peers will laugh at them for using the target language (in response to question 5). Researchers like McCrosky (1977) conclude that students with high levels of anxiety tend to avoid class participation and communication as much as they can. The same is indicated by Liu and Jackson (2008) in their study entitled "Chinese EFL Learners' Unwillingness to Communicate and Foreign Language Anxiety". They propose that L2 students who characteristically have high levels of anxiety are more unwilling to take part in classroom interaction with their instructor. The results of the above-mentioned studies therefore suggest that reduced anxiety levels in learners indicate that its negative effect on students' participation is limited. This is also the case in the current study which in turn means that, other factors notwithstanding, students of this group were expected to participate actively with their instructors and their colleagues.
Self-efficacy

Elements 2, 4, 6, 8, and 9 of the questionnaire tested students' self-efficacy during Arabic hybrid classes. The results of this section indicate that students are self-efficacious towards learning Arabic, as 100% of the group indicated that learning Arabic is a challenge that they enjoy (statement 9) and 16.7% of them agreed that they were concerned about their ability to do well in Arabic classes (number 6). A high percentage (75%) of them agreed that they felt confident that they could master Arabic language skills (number 4) and (83.3%) also agreed that they enjoyed using Arabic outside of class (number 8). In their research about self-efficacy, Raoofi, Tan and Chan (2012) indicate that students with high levels of self-efficacy can be expected to be more engaged in classroom activities and interaction than learners who exhibit lower rates. The above results indicate that the high rate of self-efficacy displayed by members of this group was expected to allow them to participate well and engage in interactions during the Arabic classes.

5.2 Discussion of the Results of Research Question 2

2-What are the targeted group's perceptions of S-I and S-S interaction in this hybrid course of Arabic as a foreign language?

This research question focuses on data gathered through the closed questions in part 3 of the questionnaire (section A, the quantitative tool). In addition, it targets data from the observation of classes and the open-ended items in the same questionnaire (Section B, the qualitative tool)
5.2. Section A: The Quantitative Tool

5.2. A.I. S-I interaction

Questions 1, 3, 4, 11, 14, 15, 18, and 19 of the questionnaire investigate S-I interaction. As mentioned in the previous chapter, a set of apparent contradictions in students' perceptions has been revealed by some of these queries. The researcher will start by discussing possible explanations for these contradictions.

To begin with, an apparent contradiction which needs to be addressed emerges in instructor provided feedback as a form of I→S interaction. As indicated in the previous chapter, though a clear majority felt that instructor feedback was sufficient (91.6% responded positively to question 14), a smaller though still significant percentage (75% in response to number 15) felt it was useful, and an even smaller percentage (50% in response to question 11) felt that their questions were ‘well addressed’ by the instructors. It would seem that, if such a clear majority felt that feedback was sufficient and useful, then a larger percentage (i.e. more than 50%) should feel that their questions were ‘well addressed’. The trend of students feeling that their questions were not ‘well addressed’ is further verified in information gathered from the open-ended questions, where students expressed frustration at the feedback received in the VC section of the hybrid class which could only be received via email. The expectation of receiving the same level and form of feedback from both VC & FTF instructors highlights some students’ misunderstanding of how both sections of this hybrid course are expected to work. The results indicate that students failed to see that the local instructor is supposed to complement the role of the main VC instructor by providing them with more chances for interaction through feedback, additional exercises, and answering their questions, in addition to helping them to practice pronunciation and writing. This point will be explained in more details in section 5.2.B.I. Another contradiction is noted between students' perceptions about S-I
interaction, as indicated by items 1, 4, 18, & 19. The responses to statement 1 reveal that 25% of the students believe that this course is conducive to asking questions. Such a statement would seem to suggest that only a quarter of the students felt that the course actively encouraged them to ask questions, which is an important form of S-I interaction in language classes. On the other hand, the response to question 18 shows that 50% of the students believed that questions asked by the instructors prompted their participation and the same percentage felt that the hybrid course allowed for a high level of S-I interaction (in response to question 19). The rest of the responses fell between neutral and disagreement. One explanation for the above-mentioned contradiction can be reached by referring to the students' responses to the open-ended questions. In that section, the students commented that they felt they had a lower level of S-I interaction in the VC part of the course unlike the FTF part where they said they had high levels of interaction. They attributed their reduced interaction to technical difficulties, especially those involving microphones, as will be discussed later in more detail. It is therefore possible that students felt that opportunities for interaction in FTF classes were made possible through instructor-initiated questions (I→S) but this did not materialize in the VC section (i.e. reduced S→I interaction) because of the technical difficulties. They indicated that they had asked and answered many questions in the FTF lectures (S→I & I→S interaction). This is further verified by the researcher's observations, where instances of instructor-initiated opportunities for interaction (represented by instructor questions or comments) were noted in both sections of the hybrid course, though to a lesser extent in the VC section. This will be discussed further in this chapter.

The fact that students felt opportunities for interaction was made available in the hybrid class is verified by their responses to 4, where 58.3% indicated that they
were encouraged to initiate conversation. The opinions of the other students fell between neutral (25%), disagreement (8.3%) and strong disagreement (8.3%). The fact that only half of the students considered (in their responses to 19) that the course allowed for a high level of S-I interaction could be attributed to the previously discussed misconception about the role of each teacher in this type of course. It could also be connected to the technical problems which affected the VC part of the course, which will be discussed more fully in 5.2.A.IV, and 5.2.B.II.

Another contradiction lies in the fact that 58.3% perceived that their S-I interaction in this Arabic hybrid course was like that of any standard language class. This would appear to contradict students' answers to the open-ended questions where they criticized the technological tools applied in the VC sessions and described them as hindering their S-I interaction. For example, one student indicated:

-"The microphones were muted most of the time so the professor could not hear us, since it was a distraction. As a result, I did not participate as much as I could have in any other course".

An explanation of this contradiction may be that students who positively responded to this component based their response more on the FTF part of the course, as one participant pointed out:

-"Participation in FTF class was like any traditional class participation"

5.2. A.II. S-S Interaction

Questions 2, 5, 6, and 13 of the questionnaire all examine S-S interaction. Results revealed that a considerable number of students (66.7%) indicated that they interacted with their peers as they usually do in other classes. The results also showed that a considerable number of students (83.3%) perceived that there were enough opportunities to interact with their peers in this hybrid course (question 2) and in
response to question 13, 91.7% of them said that language practice with their colleagues was helpful. One of the reasons why students believed the above can be traced to their answers to the open-ended questions, as some students indicated that their colleagues were friendly and open to conversation and discussion. Another reason may be deduced from the following interesting comment made by one student:

-"Our confusion over the web cam gave us something to bond over, it was the first thing we talked about with most of my colleagues"

The above statement suggests that S-S interaction may have been enhanced by the same challenges that hindered S-I interaction. This all indicate that S-S interaction was regarded quite differently from S-I interaction by the students in this hybrid course.

5. 2. A. III. S-I/S-S Interaction

Questions 9 and 12 of the questionnaire investigate instances that cover both S-S and S-I interaction. Number 9 asks about the existence of enough opportunities to speak during the course (with the instructor and colleagues, together and separately), and number 12 solicits agreement or disagreement as to whether being on a hybrid course inhibited class participation, with the instructor or colleagues, or both. The responses to number 9 reveal that a considerable number of students (66.7%) perceived that they had enough opportunities to speak on this course. This could be explained using the learners' answers to the open-ended questions, as they indicated having had a good amount of S-S interaction through which they could practice the language and speak with each other. With regards to S-I interaction, their comments also indicate that they had enough opportunity to speak, including to ask and answer questions and make comments in the FTF lectures. They also had opportunities to
speak in the VC sessions, though they considered them to be less than in the FTF environment. The responses to question 12 reveal that 25% of students agreed that the hybrid course did not inhibit their class participation, while 58.3% of them disagreed and expressed the view that it did, and the final 16.7% were neutral. This apparently contradicts the previously stated result that 66.7% believed there were sufficient opportunities to speak during the course. Such apparent contradiction could be attributed to technical problems in the VC sessions that negatively affected the learners' perceptions of S-I interaction. This point will be discussed in more detail in section 5.2.B. II.

5.2. A.IV. Technology

Questions 7, 8, 10, 16, 17, and 20 of the questionnaire examine students' perceptions of technology. The results of this section revealed that a clear majority of students (83.3%) felt that technological tools used in this class, namely over-sensitive microphones were a major hindrance to their S-I interaction (question 16). These issues were mentioned in the open-ended questionnaire section and verified by observation data and a further explanation of problems created by this technology will be presented in section 5.2.B.II. This result is supported by the conclusions of a study by Jackson and Helms (2008), which indicated that when the section of the hybrid course which utilizes technology was impeded by technical difficulties, it led to decreasing S-I interaction.

Alternatively, a minority of 16.7% perceived that their S-S participation was impeded by technological problems during the hybrid course. The limited number of students who consciously regarded technical problems as an impediment to interaction could be explained by referring to their comments in the open-ended part of the questionnaire, as one student commented:
"Technology brought us together, we had to converse to understand". Technology, here, refers to technical difficulties that students faced.

The results of this section also revealed that 33.3% of the students agreed that they would take another hybrid Arabic course, using the same technology employed in this class (question 20); while only 16.6% indicated that they would recommend it to a friend or colleague. This contradiction could be explained in light of students' comments in the open-ended section, where they pointed out that they would not be deterred from taking another hybrid course using the same technology because they love the Arabic language, rather than because they favor this learning method. On the other hand, they would not advise a friend to register on this course. This point will be explained in more details in 5.2.B. II.

5. 2.B. Section B: The Qualitative Tool

As mentioned earlier, the researcher relies on the qualitative tools of open-ended questioning and class observation to complement and verify the quantitative results reached. She focuses on the analysis of data received from 16 open-ended questions in part 3 of the questionnaire. Additionally, the study relies on the researcher's observation of randomly selected VC & FTF sessions.

Discussion of the Results of the Open-ended Questions

Analysis of the open-ended questions aims at detecting common themes in the students' responses regarding S-I & S-S interaction in the context of this hybrid course. The open-ended questions are divided into two types; questions 21 to 26 which are exclusively open-ended, and the additional 10 items with "please explain" sections attached (questions 11 to 20).
The following is a list of common themes detected.

<table>
<thead>
<tr>
<th>Theme Number</th>
<th>Theme Name</th>
</tr>
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<tbody>
<tr>
<td>Theme 1</td>
<td>Difficulty of participation in the VC sessions.</td>
</tr>
<tr>
<td>Theme 2</td>
<td>Technological challenges</td>
</tr>
<tr>
<td>Them 3</td>
<td>S-S interaction</td>
</tr>
<tr>
<td>Them 4</td>
<td>Views and suggestions</td>
</tr>
</tbody>
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5.2. B.I.Theme1

**Difficulty of participation in the VC Sessions (S-I interaction)**

One of the most recurrent themes in students' statements about participation in this hybrid course relates to the lack of or difficulties with S-I participation in the VC part of the class, compared to the FTF section. They attributed this problem to audiovisual issues in the VC lectures; in particular, oversensitive microphones and lighting. These results show the students' desire to receive more balanced or equal S-I and S-S interaction in both the VC and FTF classes. Similar recommendations were made by Lee and Dashed (2011), who did their research on designing active S-I and S-S interaction for hybrid courses and recommend that the components of the hybrid course (FTF and online, though not necessarily using VC) should provide balanced amounts of interaction. However, as mentioned above, this hybrid course was designed somewhat differently. In this course, the local teacher had the responsibility
of answering students' questions and creating opportunities for S-I interaction in class.

As previously stated in Chapter 1 (the context of the study), this hybrid course is designed to work with two teachers; the main instructor, who broadcasts from another state via VC, and the local instructor (his teaching assistant). The VC instructor starts by teaching his part of the lesson plan and his FTF teaching assistant completes the next part on the following day. They alternate for 4 consecutive days. The teaching assistant's job is to teach the FTF classes and attends the VC sessions in order to help the main instructor with students' oral and written practice. The local instructor is actually employed in order to give students the opportunity to have live communication with a teacher in person. Thus, the FTF teacher (the local instructor) has to provide the students with extra homework, exercises, and practice in addition to weekly office hours. Students are allowed to email their VC instructor to seek feedback, but they are supposed to mainly depend on interaction with and feedback from their local instructor. This formula of course organization should have been explained to the students on the first day of the semester. This would have allowed them to re-structure their expectations accordingly and interact with both instructors in keeping with his/her designated workload. Explaining the nature of this hybrid course and how it works to students, at the beginning of the semester, would lead them to recognize that the VC and FTF elements complement each other and not mistakenly consider them as two separate entities. Consequently the previously mentioned result, showing students' dissatisfaction that they got less interaction in VC than FTF could be, at least partially, attributed to their misconceptions about the course which led to inaccurate expectations of the instructors' roles. However, this may not be the only factor which contributed to students' discontent; technical problems in the VC sessions could have also played a part.
In the following section it will be also made clear that technical difficulties had a role to play in reducing S-I interaction. This is made plain by the fact that students' comments also indicated that their interactions were prompted by their instructors' questions, yet they described their S-I interaction in the VC as frustrating. Although the aforementioned misunderstanding regarding class structure could explain this contradiction, technological issues played a role also, and this will be examined in greater detail in the following section.

5.2. B.II. Theme 2

Technological Challenges (and their effect on S-I and S-S interaction)

The comments of students which tie into this theme reveal that they perceived acoustic and visual technical problems as major hurdles in the VC section of the hybrid course which lead to reduced S-I interaction. Based on the students' statements, sound issues pertaining to the muting and un-muting of the microphone in the VC part of the course reduced chances of S-I participation. As stated earlier in chapter 1 (the context of the study), the microphones were so sensitive that the main instructor could hear almost every single sound in the classroom, including sounds such as rustling paper and students moving around etc. The muting and un-muting of the microphone is controlled by an option on a remote control, which is usually held by the teaching assistant, who uses it according to the main instructor's request. The challenge of muting and un-muting the sound smoothly is explained by one student as follows: 

-"I have to raise my hand, wait for the instructor to recognize me and un-mute the microphone"

According to some students' statements in the open-ended part of the questionnaire, this process did not encourage them to take part and it may have put some students off participating in class interaction. It could be also assumed that these
technical issues aborted the VC instructor's efforts to have more interactions with his students. The results of this section also indicated that students perceived problems with the lighting which prevented them from seeing the educational materials projected on the screen clearly. There were also additional issues with computers freezing or crashing. Some of the students' disappointment in the technology used in class is reflected in the statements below:

-"I could not see a lot of the material that came over in the VC because the lighting made it difficult"

-"The technology was constantly an issue, the computer freeze several times"

As a result of these technical problems, another two students indicated that the technology used in this class was a waste of time.

-"There were often issues with sound of the visual media, this definitely wasted time"

-"Technology in the time limit (one hour) was wasted"

However, students' statements which fall under this theme also reveal a perception that there were valuable applications of online sources and visual media (for example, pictures, documentaries, videos and songs) in the VC section of the course. The need for such resources and visuals is emphasized by Black (2002) who concludes that work in the hybrid classes could be complemented by audio clips, pictures, and different audiovisual online educational resources.

As mentioned earlier, the results of the Likert-scaled section of the questionnaire indicated that 33.35% of students pointed out that they would consider taking another Arabic hybrid learning course using this technology (see question 20). In their answers to the open-ended questions they clarified that, since they love the language and would like to continue learning it in the future, they are likely to take Arabic hybrid courses using the same technology again as it is the only form in which
the course is currently offered. However, they also indicated that they would not recommend it to a friend or a colleague. This result is also in line with the previously mentioned finding that students are motivated to learn Arabic.

5.2. B. III. Theme 3

S-S Interaction

The results of this part reveal that 9 students reported a lot of S-S interaction in the course. The students' comments on this theme showed that technology did not hinder their S-S interaction, unlike the S-I interactions, as two students commented:
- "The technology did not affect my interaction with my peers."
- "The technology did not affect me much in learning with my classmates."

While the previously mentioned students indicated that being in the VC section of the course did not reduce their participation with their peers, another two learners pointed out that, issues with technology motivated them to increase their S-S interaction, in order to overcome confusion with the webcam:
- "Our confusion over the webcam gave us something to bond over, it was the first thing I talked about with most of my classmates"
- "Issues of technology brought us together because we had to converse to understand."

This again emphasizes students' motivation to learn the target language. It is probable that learners were motivated enough that issues with technology did not impede them overall, but stimulated them to communicate more with each other, in order to learn the target language. The results of the current section also reveal that students enjoyed speaking Arabic with each other whenever they had the chance. Three learners stated that:
- "Engaging in language practice with our peers helped us all". 
"It helped us all to better grasp the language by engaging in conversation in Arabic with one another"

"It was fun and helpful to converse with my peers in Arabic"

"I had fun getting to know the people in my class, we often greet each other in Arabic"

This is, of course, an indication of their high levels of motivation as learners and should lead to more S-S interaction. Additionally, two of the other students' statements showed that they felt less pressured to interact with each other:

"It was helpful to work with my peers because we could fix each other’s mistakes without being intimidated"

"It is less pressure to interact with my peers than to do so with a professor"

This means that the participants had low anxiety levels, which conforms to results of section 5. 1. B

5.2. B.IV. Theme 4

Views and Suggestions

Among the responses to the questionnaire, four statements were made by different students which made it clear that these learners did not favor learning in a hybrid course environment which relies on VC and FTF sections

"I think the hybrid course is interesting but not the most effective way to do a class."

"Class Participation did not really change my view on this kind of learning style. I just do not like it because I prefer being taught by a physical instructor."

"It made me pessimistic that a hybrid course would work."

"I was skeptical and confused at first, but now I am definitely disapprove of hybrid courses."
These learners' comments reflect their belief that learning languages specifically, the non-Roman alphabet languages necessitates practicing conversation. This conversation is not easy to fit into the VC section of the hybrid course.

"I still think that hybrid courses can be useful for expanding education, but I realize that it was not appropriate for a non-Roman language course".

This opinion is further backed up by statements indicating that participants prefer to learn Arabic in FTF classes, rather than via hybrid instruction facilitated by VC sessions. One student pointed out:

"The standard setting would have been more appropriate in my opinion, especially since this is a language course that includes conversation."

Such opinions can be, at least partially, attributed to students' misconceptions about how the VC and FTF sections of the course relate to one another. However, technical problems resulting from the technology used could also be a factor. Various participants suggested in their statements that better quality with better lighting, less sensitive microphones and better cameras should be used. The following students' statements are representative:

"Make sure that the lightning over the screen can be seen by all the students"

"I would suggest a better way to show the professor's computer than pointing a camera at it"

"I would also suggest using less sensitive microphones so he would not have to mute us and we could interact with him more"

"I would suggest better quality technology that would not freeze up all the time".

These suggestions are justified, due to the technical problems they had to deal with throughout the VC course sessions, including the audiovisual issues mentioned earlier.
Discussion of Class Observation Results

5. 2. B. V. Number and Average Durations of S-I Interaction in FTF & VC

Sections of the Course

The results of the researcher's class observations reveal that, the number of student-initiated instances of interaction with the instructor in the VC sessions is relatively few in comparison with the FTF classes (26 instances in VC classes versus 49 in FTF lectures). However, their average duration in some VC sessions is longer than in FTF lectures. As stated in the previous chapter, the length of these incidents of interaction is important, because it sheds light onto the nature of interaction in each part of the hybrid classes.

As mentioned in the previous chapter, in the VC sessions numbered 1, 2, 3, and 4, there were 8, 8, 4 and 6 students' initiated questions or comments addressed to the instructor, with average durations of 19, 96.5, 195, and 97 seconds respectively. The long average duration of interaction incidents (96.5 seconds) in session 2 could be explained by looking at the type of information exchanged during these incidents. Analysis of this would reveal that out of 8 incidents of interaction, learners initiated 4 procedural questions or comments to their instructor about the following day's quiz. The same applies to session 4 in which participants oriented 4 procedural-questions or comments, out of 6 instances of interaction, to their instructor about the grades of their oral presentations. They lasted for an average of 97 seconds. In session 3 there were 4 questions/comments, with an average duration of 195 seconds, which were all procedural. It was nearly the end of the semester and students were asking questions
about their final exam. These interactions were all in English, which explains the long
time average. All of the above make it clear that the longer instances of interaction in
VC sessions can be explained by the students' need to know more about class
procedures from the VC session instructor, who was responsible for such procedures.
The fact that such interactions were carried out in L1 gave students the chance to
speak more freely. Thus, despite the fact that S-I instances of interaction were longer
in the VC, the duration alone does not indicate the presence of the content-oriented
form of interaction which students need in language classes, and which they reported
as missing when responding to the open-ended questions of the questionnaire.
In FTF lectures 5, 6, 7 and 8 the number of instances of interaction was 12, 14,11 and
12 questions or comments, with average durations of 31, 26, 22, and 39 seconds
respectively. For instance, in lecture 5, students initiated only 3 procedural-based
questions or comments to their instructor; the other 9 were content-based incidents of
interaction. Two of the procedural instances of interaction were about an upcoming
quiz, which is usually (as previously stated) created by the main instructor and sent to
his teaching assistant several days before the assigned date. Quizzes are always
administered in the FTF lectures. The third procedural question/comment was about
the student's office hour slot. These three procedural questions/comments are:
-'Will next class's quiz cover everything from the previous lessons and their grammar
sections, or will it only cover the last lesson?''
-'I won't be able to attend the next quiz and I need to schedule an appointment with
you for next Thursday at your office to take the quiz. If it's possible, could you please
send me the exercises that you will give them in class before the quiz so I can solve
them before coming on Thursday? The other incident of interaction was about
teacher's office hours. It is as follows:
"I need to see the office hours' time slot sheet; I have a quiz for another course on the day I signed up for before and I will need to study for it so I need to reschedule"

These questions and comments are in the students' L1 which explains again the relatively long average durations of these three instances of interaction (20, 25, 25 seconds) when compared to other S-I instances. In lecture number 6, 14 instances of interaction took place; one of them was a procedural question which was in the learners' L1 and lasted for 15 seconds, while the rest were content-oriented questions or comments. Analyzing the number and duration of these FTF and VC instances of interaction reveal that learners initiated more procedural-based than content-based communications to their VC instructor (and vice versa) which reflects the role of each teacher on the hybrid course. The VC instructor is the main teacher who writes the syllabus, quizzes and the final exam, which is why the students directed their procedural questions and comments to him, despite the technological problems. These queries were usually in L1 and lasted longer than content-based incidents of interaction. Because more application activities including L2 interaction are left to the FTF instructor (per the course design), the learners directed less procedural-based and more content-based instances of interaction to her. They were mostly in L2 and lasted less than procedural instances of interaction.

It was also observed that there were a total of 89 and 130 instructor-initiated instances of interaction with students in VC and FTF classes, respectively. The number of instructor-initiated instances of interaction in VC sessions 1, 2, 3, and 4 was 20, 35, 9, 25 questions / comments with average durations of 9, 9, 10, and 10 seconds. Meanwhile the number of instructor-initiated instance of interaction in FTF lectures 5, 6, 7, and 8 was 39, 32, 12, 47 questions /comments with average durations of 14, 14, 36, and 12 seconds. This result is in line with students' statements in the
open-ended section of the questionnaire, as they commented that they had less instructor-initiated instances of interaction in the VC sessions than in the FTF classes. One explanation for this is the type of questions that the VC instructor used. These were mainly convergent yes/no questions or rhetorical questions that did not require a response from the learners (i.e. limited or no interaction took place). This could have been caused by course structure.

As stated in chapter 1 (context of the study), the main role of the VC instructor is explaining new content and sometimes providing some activities. He often used convergent questions, which Lockhart (1989) defines as questions which "encourage similar student responses, or responses which focus on a central theme. These responses are often short answers, such as "yes" or "no", or short statements" (p. 186). This type of questions leads to little S-I interaction. Lockhart (1994) explains that convergent questions are usually used by teachers to introduce new lessons, in order to prepare students and introduce them to the topic. Examples of convergent questions used in the VC sessions are as follows:

- "What is the word for kids?"
- "The number تسعة و أربعين what is تسعة؟
- "The number (tisʕa) what is (tisʕa)?
- "The number 49; what is the Arabic equivalent of 9?"
- "And what is (أربعين) أربعين)?"
- "And what is (رباع)؟"
- "And what is the Arabic equivalent of 40?"

Similarly, rhetorical questions are defined as "questions that neither seek information nor elicit an answer" (Borkin 1971 & Sadock 1971). Teachers usually use
them while introducing lessons or explaining grammar. For example, when the VC teacher was introducing the Arabic word for "to have", he asked his students:
- "If I ask you how many brothers do you have? You will not be able to answer (in Arabic) unless you know what the Arabic word for 'to have' is"

The role of the teaching assistant (FTF, local instructor) is to make lesson activities, in order to ensure learners' understanding and sometimes she may explain new content. Lessons, exercises and applications necessitate using divergent questions which require more student interaction. Divergent questions are defined by Lockhart (1989) as questions that "encourage diverse students' responses which are not short answers. They encourage students to provide their own information" (p. 187). The following are examples of divergent questions that were used in FTF lectures. A list of phonetic symbols (El Ramly, 2013) could be found in appendix C.

- "لماذا تدرس اللغة العربية؟"
- "lim aːða tadrus ,alloYa ,farmabyya?"
- "Why do you study Arabic?"
- "قدم نفسك باللغة العربية""
- "Qadim nafsak billoYa ,farmabyya"
- "Introduce yourself in Arabic"

All the above clarify one of the reasons that might lead students to believe that they received less instructor-initiated instances of interaction in VC class time than they did in FTF. It could be due to the types of questions used by both instructors, which led to different levels of S-I interaction.
5.2. VI. Number and Average Durations of S-S Interaction in FTF & VC Sections of the Course

Unlike the previous section, the results of the current section indicate that the quantity and average durations of student-initiated questions and comments on each other's questions, comments or responses in the FTF lectures is close to that in the VC sessions. The number of above mentioned instances of interaction which took place in VC sessions is 6, 10, 5, and 8 questions/comments respectively, with average durations of 16, 13, 14, and 15 seconds. While the number of interactions in FTF classes was 8, 9, 7, 8 questions/comments and their average durations were 21, 12, 15, and 12 seconds. In session 7 (FTF) the number of students' initiated questions/comments on each other's communications is 7, with an average duration of 15 seconds. The relatively fewer number of instances of interaction here, compared to other FTF sessions, is attributed to the fact that the students in this session had to make brief presentations in Arabic. After each presentation, their colleagues asked questions in English which the student had to answer in Arabic. Though in L1, S-S interaction was content-oriented which allows it to fall under learning-related interaction. Similarly, in VC sessions (e.g. VC class number 2), students were observed to ask each other questions or comment on their colleagues' responses. Most of these contributions (comments and questions) on the part of the learners were in English and few of them in Arabic. However, they did lead to furthering students' learning. According to the participants' open-ended responses to the questionnaire, the students used them to help each other understand.

Class Observation also revealed that, unlike S-I interaction, participants enjoyed almost the same number of class activities requiring S-S interaction in both VC and FTF classes. Based on the students' responses to the open-ended questions,
this result can be used to show that technology did not impede S-S interaction and that learners' participation with each other in the hybrid course was effective:

- "Technology did not affect my interaction with peers"
- "I was able to communicate effectively with my classmates"

Another student explained that their peers were open to discussion, which stimulated more S-S interaction. Participants were also observed to exert extra efforts in group work activities. Observation data reports an incident where students were asked to work in groups to place vocabulary words into sentences. The teacher was surprised to find that some groups used the new vocabulary to create stories about themselves, rather than simply using each word in de-contextualized sentences, as requested. The instructor praised their superlative efforts, to which the students responded that they liked to create stories in Arabic. This emphasizes the findings of research question 1; that the students were motivated to learn Arabic.

To sum up, discussion of the data from the class observations indicates that there were enough opportunities of S-S interaction, whether S-S incidents of interaction (questions and comments) or class activities requiring S-S interaction (pair and group work activities). As students stated in the open-ended questionnaire section, this might be attributed to learners being cooperative on this hybrid course. Additionally, technological hindrances did not affect their S-S participation, as documented in their responses to the open-ended section of the questionnaire.

To conclude, this chapter aims to discuss the results of Chapter 4 and attempts to explain the apparent contradictions found between some of them. For example, half of the learners (50%) indicated that their instructors' questions stimulated their interaction and that there is a high level of interaction in the course classes; yet only 25% indicated that the course is conducive to asking questions. Analysis of
participant's responses to the survey's open-ended questions and the class observation data explained this result. It also showed that learners perceive that they had more S-I interaction in the FTF classes than they did in the VC sessions of the course. The low level of S-I interaction there could be ascribed to the technological problems which the students encountered in the VC parts of the course. This might explain the aforementioned result that only 25% expressed the view that the course is conducive to asking questions, as they may have based their answers on the VC part of the course. It also could be attributed to some students' expectations that they should receive an equal amount of interaction in the two separate facets of the course. As stated before, this hybrid course is designed in such a way that the VC instructor is responsible for presenting the content of the course. Additionally, he may introduce some lessons’ activities and practices. On the other hand, his teaching assistant's job is primarily to provide activities and exercises. Yet, she sometimes introduces some of the course material. Because this course design had not been explained fully to the students at the beginning of the semester, students taking the course carried some misconceptions about the role of each teacher and the expected amount of S-I interaction that they would provide in their classes.

The results of the previous chapter also showed that a clear 91.6% majority of students perceived that the kind of feedback they received from their instructors was overall sufficient; another 75% of them indicated that it was helpful. These results apparently contradict the fact that a smaller percentage of learners (50%) considered their questions well addressed during the course. Students' responses to the open-ended questions revealed that they specified that the kind of feedback they received in the standard part of the course (FTF) was helpful and sufficient. They added that they wished that they could have received the same quality of feedback in the VC
sessions as well. This could be attributed to the students' expectations that they should get an equal amount of feedback from both instructors. As stated earlier, due to the learners' misunderstanding about how the two parts of the course should work, they failed to recognize that the roles of the two instructors are different but actually complement each other.

Another contradiction lies in the fact that 58.3% of students perceived that their S-I interaction in this Arabic hybrid course was like that of any standard language class. This would appear to run contrary to students' answers to the open-ended questions, where they criticized the technology applied in the VC sessions and described them as hindering their S-I interactions. An explanation for this contradiction might be that students who positively responded to this question based their response more on the FTF part of the course.

Similarly, a significant percentage of students (66.7%) perceived that they interacted with their peers in this class as they usually do in any language course. A clear majority (83.3%) indicated that there were enough chances to interact with their peers throughout the course and that the structure of this hybrid course did not affect their interactions with each other. The students' responses to the open-ended questions emphasized this result and clarified that the nature of the hybrid course did not hinder their opportunities to communicate or interact with each other. They asserted that their colleagues were friendly and open to conversation and discussion. Another interesting explanation may be found in a student's comment: "Our confusion over the web cam gave us something to bond over, it was the first thing we talked about with most of my colleagues" This suggests that students were motivated to have more S-S interaction by the same challenges that hindered their S-I interaction.
5. 3 Pedagogical Implications and Recommendations

The current study has implications for the progress of both designing and implementing language teaching through the hybrid course method.

1-In order to make S-I interaction more effective in VC sessions, a review of appropriate tools such as microphones and cameras should be performed. For example, less sensitive microphones and better cameras which can clearly show the instructor's materials are recommended.

2-The results have also shown that, despite students regarded the hybrid mode of learning as interesting, challenges pertaining to selecting appropriate technology (per the previous recommendation), as well as the structure of the hybrid sessions need to be reviewed and evaluated. This is to avoid misunderstandings or wrong impressions, leading to students' possible negative perceptions (as discussed previously)

3-As long as this course is based on one main instructor in the VC part and a teaching assistant in the FTF lecture, it is recommended that students are provided with an understanding of the theory behind the course and a detailed course syllabus which details the responsibilities of each teacher. Moreover, students should be informed that most of S-I interaction will be left to the teaching assistant in the FTF classes. When students are informed, then they are better prepared, more willing to learn, and less inclined to blame and criticize the course methods. Similarly, they should be made aware from the beginning that their office hours are to be conducted with the FTF instructor only.

4-More coordination between the two teachers of the hybrid class is recommended. They may choose to schedule regular Skype meetings in order to discuss their students' attitudes, progress and any problems that may occur with the hybrid teaching mode.
5-More FTF classes are suggested in order to provide students with more exercises and practice in the target language.

5. 4 Limitations and Delimitations of the Study
The current study ran into some limitations which are summed up as follows:

1-The number of participants was relatively small, due to the limited number of students registered for this newly established Arabic course, so the results of the study are not generalizable.

2-The researcher had to observe her own classes and the VC classes because there was no other Arabic speakers with a Human Research Ethics Training Certificate available in the University where the study took place. Having an observer other than the researcher could have reduced the researcher effect.

3-Because the researcher was also the class teacher, conducting interviews with her students would have jeopardized their anonymity. Accordingly, the quantity of data available was reduced to only that obtainable through the questionnaire and class observation, which influenced the study's results and conclusions.

4-An important limitation to this study is the lack of research available relating to students' affective variables in connection to their perceptions of interaction in the hybrid courses. As a result, the findings of the study do not have many research results to refer to.

5-The study is limited to undergraduate students who are beginners in the language, and not those with a higher level of language proficiency who might perceive interaction differently in this hybrid course.

6-The study is limited to investigating S-I and S-S interaction. Other types of S-I interaction specified by Moore (1989) such as student content and student interface interaction are not included in this research.
7-All the close-ended questions should have included a "please explain" part asking the students to elaborate further, in order to make up for the absence of interview data and to have access to more pertinent information to answer the research questions.

8-The observed FTF and VC sessions were not consecutive. Recording successive classes would have provided a clearer picture of instances of interaction in the 2 parts of the hybrid course, as compared by students in their comments to the open-ended part of the questionnaire.

9-During the class observations, the time permitted for pair/group work was measured, but not the actual duration of S-S interaction during each activity. Calculating the actual duration of the instances of S-S interaction would have given a more precise picture of how pair/group work activities affect S-S intercommunication

5. 5 Suggestions for Further Research
1- Conducting the same study but with a larger sample, and with students with higher proficiency levels.

2- Conducting a study with both classes from Fargo and New Paltz, in order to investigate the students' perceptions of S-S interaction with their virtual colleagues.

5. 6. Conclusions
The present study concludes that the technology of the VC part of the course has to be improved further in order to enable VC instructors to interact more effectively with their students. The course structure and technology have to be re-evaluated, in order to avoid future difficulties with S-I instances of interaction being reported by students. It is to be hoped that the findings of this study enrich the limited but developing body of research that is concerned with the hybrid mode of instruction. Additionally, this study has suggested some recommendations for hybrid course designers in order to improve the existing structure and technology of the online part
of the course. Moreover, this research has presented recommendations for future studies, in order to further investigate how students perceive S-I and S-S interaction in Arabic hybrid courses.
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Appendices

Appendix A

Dear Student:

As a part of my program of studies at the American University in Cairo, Egypt, I am completing a Masters’ thesis on hybrid courses in the teaching of Arabic as a foreign language. In particular, I am interested in investigating students’ perceptions of classroom interaction. In order to ensure that hybrid classes are effective and meet the students’ needs, I would like to invite you to take part in my study by sharing your opinions about this type of instruction. I am planning on presenting my work at conferences and through a journal article, and although your name and identity will remain confidential, your contribution stands to make a difference for other instructors and students who will take hybrid courses at New Paltz and other institutions worldwide.

Your participation in this study will require completing an anonymous survey which includes agree-disagree types of questions, and will take approximately 15-20 minutes of your time. Your participation in this study is voluntary. There are no known risks associated with it. You can choose to skip any and all questions you do not wish to answer. Whether you decide to take part in this study or not, your grade in this or future Arabic classes will not be affected. When you are done, just seal your questionnaire in the blank envelope provided and put the envelope in the large manila envelope on the teacher’s desk. Please do not put any identifying remarks on your questionnaire.

This study was approved by the Institutional Review Board at The State University of New York in New Paltz. [http://www.newpaltz.edu/sponsored_programs/humansubs.html](http://www.newpaltz.edu/sponsored_programs/humansubs.html). Should you have any questions about this survey or wish to contact me about this study, I can be reached at yousssefh1@newpaltz.edu. For questions about your rights as a research participant, contact the State University of New York at New Paltz Human Research Ethics Board (which is a group of people who review the research to protect your rights) at 845-257-3282.

I hope that you will consider contributing to what is currently known about hybrid courses in the language education literature, and thank you in advance for your help!

Sincerely,

Hanan Elsayed Ahmed Eltayeb Youssef
Please Note: These questions comply with guidelines established by the State of New York at New Paltz Human Research Ethics Board. Your involvement is strictly voluntary and you may choose not to answer any questions which you find objectionable.

I- Please check (X) all that applies

1. Are you older than 18 __ Yes __ No

2. Are you male or female __ Male __ Female

II- Please indicate to what extent you agree or disagree with the following statements, by putting an X next to the answer that closely presents your opinion.

SA = strongly agree; A = agree; N = neutral; D = disagree; SD = strongly disagree

FTF = face-to-face session

VC = videoconferencing session

A- I study Arabic to / because …

1. Satisfy the University language requirements. __ SA __ A __ N __ D __ SD

2. I want to be more a part of the cultural group that speaks Arabic. __ SA __ A __ N __ D __ SD

3. Increasing my fluency in Arabic will have career benefits for me. __ SA __ A __ N __ D __ SD

4. If I learn Arabic well, I will be able to help my children learn Arabic. __ SA __ A __ N __ D __ S

5. Arabic is important to me because I want to read the Quran. __ SA __ A __ N __ D __ S

B- As a language learner
1. It embarrasses me to volunteer answers in my Arabic hybrid class.

   __SA __ A __ N __ D __SD

2. I believe I will receive an excellent grade in my Arabic hybrid class.

   __SA __ A __ N __ D __SD

3. I do not like to speak often in Arabic class because I am afraid that my teacher will think less of me.

   __SA __ A __ N __ D __SD

4. I am certain I can master the skills being taught in my Arabic class.

   __SA __ A __ N __ D __SD

5. I am afraid other students will laugh at me when I speak Arabic.

   __SA __ A __ N __ D __SD

6. I am worried about my ability to do well in my Arabic class.

   __SA __ A __ N __ D __SD

7. I prefer to sit and listen rather than being asked to speak in Arabic class.

   __SA __ A __ N __ D __SD

8. I enjoy using Arabic outside of class whenever I have a chance.

   __SA __ A __ N __ D __SD

9. Learning Arabic is a challenge that I enjoy.

   __SA __ A __ N __ D __SD

III-

1. There were enough opportunities to interact with peers in this Hybrid course.

   __SA __ A __ N __ D __SD

2. I interacted with the instructors in this hybrid course as I do in regular class settings.

   __SA __ A __ N __ D __SD
3. I interacted with my peers in this hybrid course as I do in regular class settings.
   __SA __ A __ N __D __SD

4. There were enough opportunities to speak in this hybrid course.
   __SA __ A __ N __D __SD

5. I was encouraged to initiate conversation in this hybrid course.
   __SA __ A __ N __D __SD

6. Hybrid class lectures were conducive for asking questions.
   __SA __ A __ N __D __SD

7. There were enough pair and group work tasks in this hybrid course.
   __SA __ A __ N __D __SD

8. There were no sound problems in the VC part of this hybrid course.
   __SA __ A __ N __D __SD

9. There were no visual problems in the VC part of this hybrid course.
   __SA __ A __ N __D __SD

10. I would recommend taking a language hybrid course with this technology to other students.
    __SA __ A __ N __D __SD

11. I feel that my questions were well addressed in this hybrid course.
    __SA __ A __ N __D __SD

Please explain:

12. Being in a hybrid course did not inhibit my class participation.
    __SA __ A __ N __D __SD

Please explain:
13. Engaging in language practice with peers in this hybrid course was helpful.
   __SA   __ A   __ N   __D   __SD

   Please explain:

14. I received sufficient constructive feedback from instructors in this hybrid course.
   __SA   __ A   __ N   __D   __SD

   Please explain:

15. I feel that the kind of feedback I received in the hybrid course was helpful.
   __SA   __ A   __ N   __D   __SD

   Please explain:

16. Technology in this hybrid course was a barrier to my interaction with the instructor.
   __SA   __ A   __ N   __D   __SD

   Please explain:

17. Technology in this hybrid course was a barrier to my interaction with my classmates.
   __SA   __ A   __ N   __D   __SD

   Please explain:

18. The instructors’ questions prompted my interaction in this hybrid course.
   __SA   __ A   __ N   __D   __SD

   Please explain:

19. Hybrid class lectures allowed for a high level of student-instructors interaction.
   __SA   __ A   __ N   __D   __SD

   Explain how:

20. I would like to take another hybrid Arabic course with this technology in the future.
Explain why:

21. If you could improve anything to the existing technology of this hybrid course what would it be?

22. In this hybrid course, was it easy to ask, answer or comment on the instructors’ questions?

23. How did you perceive the students’ interaction with the instructors?

24. In this hybrid class, were you allowed to comment on your peers’ answers?

25. How did your class participation change the way you view the hybrid course as an alternative teaching format?

26-Please feel free to make any additional observations
### Appendix B

Observation Grid for class interaction in VC session

**B 1- Student-Instructor interaction (S-I)**

<table>
<thead>
<tr>
<th>Number of sessions</th>
<th>Number of student-initiated instances of interaction to instructor ($S \rightarrow I$)</th>
<th>Duration of student-initiated instances of interaction to instructor</th>
<th>Number of instructor-initiated instances of interaction ($I \rightarrow S$)</th>
<th>Duration of instructor-initiated instances of interaction</th>
</tr>
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<tbody>
<tr>
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**B2-student-student interaction (S-S)**

<table>
<thead>
<tr>
<th>Number of sessions</th>
<th>Number of S-S questions/comments</th>
<th>Duration of S-S questions/comments</th>
<th>Number of pair and group activities requiring S-S interaction</th>
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Observation Grid for class interaction in FTF session

B3-Student-Instructor interaction (S-I)

<table>
<thead>
<tr>
<th>Number of class</th>
<th>Number of student-initiated instances of interaction to instructor (S→I)</th>
<th>Duration of student-initiated instances of interaction to instructor</th>
<th>Number of instructor-initiated instances of interaction (I→S)</th>
<th>Duration of instructor-initiated instances of interaction</th>
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B4- Student-student interaction (S-S)

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<th>Number of class</th>
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<th>Duration of S-S questions/comments</th>
<th>Number of pair and group activities requiring S-S interaction</th>
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Appendix C

List of Phonetic Symbols

C. 1. Consonants

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<th>Letter</th>
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C. 2. Vowels

I. Short Vowels

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<td>(ضمة)</td>
<td>u</td>
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<tr>
<td>(كسرة)</td>
<td>i</td>
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II. Long Vowels

<table>
<thead>
<tr>
<th>Arabic Long vowel</th>
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<tr>
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<td>u:</td>
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<tr>
<td>ي</td>
<td>i:</td>
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